The Environmental Scoping Assessment for the Proposed Establishment and Operation of a Training College Located East of Okongo in the Ohangwena Region.

ECC Application Reference: APP- 006963

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EXECUTIVE SUMMARY

The Namibian Correctional Service (hereinafter referred to as the Proponent) is planning to establish and operate a new Training College approximately 70 km east of Okongo in the Ohangwena Region. This initiative arises from the need to expand training capacity and address overcrowding at existing correctional training facilities, while strengthening institutional capacity within the correctional services sector (Republic of Namibia, 2007). The proposed development will comprise training facilities, accommodation units, internal access roads, and supporting infrastructure, including water supply, power supply, and sanitation systems (Canter, 1996). In addition, the Proponent intends to construct a clinic as part of the overall development. The clinic will provide basic health services to trainees and staff, while also offering health assistance to surrounding communities, thereby reducing the need for community members to travel long distances to access healthcare services.

The proposed Training College will be established on communal land located within the Ekofya, Onaimbungu, and Omawandi areas of the Ohangwena Region. The land earmarked for the Training College and future developments measures approximately 6 km in length and 5.5 km in width. The exact footprint and layout of the facilities will be finalised during the detailed design phase and informed by the outcomes of this Environmental Scoping Assessment (ESA).

The application for an Environmental Clearance Certificate (ECC) was compiled and submitted to the competent authority, the Ministry of Environment and Tourism (MET), as the environmental custodian for project registration purposes (Republic of Namibia, 2007; MET, 2012). Upon submission of this Environmental Scoping Assessment (ESA) Report and the accompanying Draft Environmental Management Plan (EMP), an ECC for the proposed project may be considered by the Environmental Commissioner at the MET Department of Environmental Affairs and Forestry (DEAF).

Brief Project Description

Planned Activities: Establishment of a Training College

The Proponent intends to adopt a systematic approach to the project as follows:

• **Planning phase** – This is the stage during which the Proponent prepares all administrative and technical requirements needed for the establishment of the Training College. This phase includes securing land access arrangements, completing technical designs, and procuring construction and service contractors.

• **Construction phase** – This phase involves the construction of training facilities and associated infrastructure, including accommodation units, internal roads, utility services, sanitation systems, and the clinic. Construction activities will entail site clearing, earthworks, installation of infrastructure, and erection of buildings through appointed contractors.

• **Closure (Decommissioning)** – This is the stage at which the Proponent may cease using the site for training-related activities, leading to decommissioning of facilities. However, this phase is unlikely in the foreseeable future, as the Training College is intended to serve as a long-term institutional facility.

Public Consultation

Public Consultation Activities

Regulation 21 of the EIA Regulations details the steps to be followed during the public consultation process, and these were used to guide consultation for the proposed Training College. The public consultation process assisted the Environmental Consultant in identifying potential environmental and social impacts and in determining appropriate mitigation measures and alternatives where applicable.

- A Background Information Document (BID) containing information about the proposed project activities was compiled and made available to registered Interested and Affected Parties (I&APs) upon request.
- Project Environmental Assessment notices were published in the New Era Newspaper (14 and 21 November 2025), and The Namibian Newspaper (17 and 24 November 2025), briefly explaining the activity and its locality, inviting members of the public to register as I&APs and submit their comments/concerns.
- Public notice to inform members of the public about the EIA process was placed at Okongo Town Council, Omauni Community Forest Center and at the project site.
- A consultation meeting was scheduled and conducted on the 18 of November 2025 with affected community members at 10h00 at Omauni Community Forest Center, Ohangwena Region.
- Issues and concerns raised during the consultation process were documented and used to inform the ESA Report and the Draft EMP.

Potential Impacts Identified

The following potential impacts are anticipated:

Positive impacts

Socio-economic development through employment creation (primary, secondary, and tertiary employment) and skills transfer; development of a trained workforce and support for small businesses that may service communities and initiate related enterprises; stimulation of local and regional economic growth; and increased support for local suppliers through procurement of goods and services such as construction materials, Personal Protective Equipment (PPE), and other consumables.

Negative impacts

Potential disturbance of existing grazing areas; physical land and soil disturbance; impacts on local biodiversity (fauna and flora); potential habitat disturbance and illegal hunting risks; potential impacts on water resources and soils due to pollution; air quality impacts through dust generation; occupational health and safety risks; increased vehicular traffic and pressure on local road infrastructure; noise and vibration during construction activities; potential impacts on archaeological and heritage resources; and potential social nuisance and conflicts such as property damage or intrusion.

The identified potential negative impacts were assessed, and appropriate mitigation measures were provided accordingly.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The potential impacts anticipated from the proposed Training College activities were identified, described, and assessed. For significant adverse impacts with a medium significance rating, appropriate management and mitigation measures were recommended for implementation by the Proponent, their contractors, and project-related employees.

The public consultation process was undertaken in accordance with the Environmental Management Act (No. 7 of 2007) and its Environmental Impact Assessment Regulations of 2012 (Sections 21 to 24). This included newspaper advertisements and consultation meetings with affected community members. Issues and concerns raised by registered I&APs formed the basis of this Report and the Draft EMP and were addressed through proposed mitigation measures to avoid or minimise impacts on the biophysical and social environment.

Most potential impacts were found to be of medium significance. With effective implementation of the recommended management and mitigation measures, a reduction in the significance of adverse impacts from medium to low is expected. To maintain this desirable rating, monitoring of mitigation implementation by the Proponent or an appointed Environmental Control Officer (ECO) is recommended. Monitoring will ensure that identified impacts and any unforeseen impacts arising during implementation are addressed timeously.

It is crucial for the Proponent and their contractors to effectively implement the recommended management and mitigation measures to protect the biophysical and social environment throughout the project lifecycle. This will promote environmental sustainability while ensuring a harmonious integration of the Training College within the surrounding community and environment.

Recommendations

The Environmental Consultant is confident that the potential negative impacts associated with the proposed project activities can be effectively managed and mitigated through proper implementation of the recommended management and mitigation measures, supported by consistent monitoring and commitment by the Proponent.

It is therefore recommended that the proposed Training College be granted an Environmental Clearance Certificate (ECC), provided that:

- All management and mitigation measures provided in this report and the EMP are effectively and progressively implemented.
- All required permits, licences, and approvals for the proposed activities are obtained, including land access agreements and other statutory approvals.
- The Proponent and all project workers and contractors comply with all legal requirements governing the project and ensure that required permits and approvals are obtained and renewed as stipulated by the issuing authorities.
- Areas where activities have ceased are rehabilitated, as far as practicable, to their pre-construction condition.
- Environmental compliance monitoring reports are compiled and submitted through the MET/DEAF portal in accordance with regulatory requirements.

Disclaimer

Excel Dynamic Solutions (EDS) warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies outlined in the Scope of Work and the Environmental Management Act (No. 7 of 2007). These methodologies represent customary and accepted practice for conducting an Environmental Impact Assessment to identify recognised environmental conditions.

There remains the possibility that, even with the proper application of these methodologies, certain site conditions may not have been identified within the scope of the assessment or may not have been reasonably identifiable based on available information. The Consultant believes that the information obtained from record reviews and public consultation processes is reliable; however, no warranty is given regarding the accuracy or completeness of information provided by third parties.

The conclusions and findings presented in this report are limited in time and scope to the date of evaluation. No other warranties, expressed or implied, are made. Some information contained in this report is based on interviews, document reviews, and records obtained from relevant government and private institutions. The report is subject to the limitations of historical documentation, data availability, record accuracy, and personal recollections of consulted individuals.

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
CV	Curriculum Vitae
DEA	Department of Environmental Affairs
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EDS	Excel Dynamic Solutions
ESA	Environmental Scoping Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GG	Government Gazette
GN	Government Notice
I&APs	Interested and Affected Parties
MET	Ministry of Environment and Tourism
MME	Ministry of Mines and Energy
PPE	Personal Protective Equipment
Reg	Regulation
S	Section
TOR	Terms of Reference

DEFINITION OF TERMS

Alternative	A possible course of action, in place of another 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	That part of the environment does not originate with human activities (e.g. biological, physical, and chemical processes).
Cumulative Impacts/Effects Assessment	About 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 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 the 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	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)	Concerning the assessment of a listed activity includes - (a) any person, group of persons, or organization interested in or affected by the activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity. Mitigate - practical measures to reduce adverse impacts. Proponent – as defined in the Environmental Management Act, a person who proposes to undertake a listed activity. 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.
Fauna	All of the animals that are found in a given area.
Flora	All of the plants are found in a given area.
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).
Nomadic Pastoralism	Nomadic pastoralists live in societies in which the husbandry of grazing animals is viewed as an ideal way of making a living and the regular movement of all or part of the society is considered a normal and natural part of life. Pastoral nomadism is commonly found where climatic conditions produce seasonal pastures but cannot support sustained agriculture.
Proponent	Organization (private or public sector) or individual intending to implement a development proposal.
Public Consultation/Involvement	A range of techniques 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

	the 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.
Terms of Reference (ToR)	Written requirements governing full EIA input and implementation, consultations to be held, data to be produced, and form/contents of the EIA report. Often produced as an output from scoping.

1. INTRODUCTION

1.1 Project Background

The Namibian Correctional Service (hereinafter referred to as the Proponent) is planning to establish and operate a new Training College approximately 70 km east of Okongo in the Ohangwena Region. This initiative arises from the need to expand training capacity and address overcrowding at existing correctional training facilities, while strengthening institutional capacity within the correctional services sector (Republic of Namibia, 2007). The proposed development will comprise training facilities, accommodation units, internal access roads, and supporting infrastructure, including water supply, power supply, and sanitation systems (Canter, 1996). In addition, the Proponent intends to construct a clinic as part of the overall development. The clinic will provide basic health services to trainees and staff, while also offering health assistance to surrounding communities, thereby reducing the need for community members to travel long distances to access healthcare services.

The proposed Training College will be established on communal land located within the Ekofya, Onaimbungu, and Omawandi areas of the Ohangwena Region. The land earmarked for the Training College and future developments measures approximately 6 km in length and 5.5 km in width. The exact footprint and layout of the facilities will be finalised during the detailed design phase and informed by the outcomes of this Environmental Scoping Assessment (ESA).

The Environmental Management Act (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations of 2012 list activities that may not be undertaken without an Environmental Clearance Certificate (ECC) (Republic of Namibia, 2007; MET, 2012). Land use and development activities, including the construction of institutional facilities and associated infrastructure, are among the listed activities requiring environmental authorisation (Republic of Namibia, 2007; MET, 2012).

In compliance with the above legislative requirements, the Proponent is required to obtain an Environmental Clearance Certificate (ECC) prior to commencing any construction-related activities. To fulfil this legal obligation, the Proponent appointed Excel Dynamic Solutions (Pty) Ltd, an independent environmental consultancy, to undertake the Environmental Impact Assessment (EIA) process and submit the ECC application to the Department of Environmental Affairs (DEA) at the Ministry of Environment and Tourism (MET) (Republic of Namibia, 2007).

This Environmental Scoping Assessment Report has been prepared to identify and assess the potential environmental and social impacts associated with the proposed establishment of the training college. The findings of this assessment will inform the development of appropriate management and mitigation measures, which will be incorporated into the accompanying Environmental Management Plan (EMP).

1.2 Terms of Reference, Scope of Works, and Appointed EA Practitioner

To satisfy the requirements of the Environmental Management Act (No. 7 of 2007) (EMA) and its Environmental Impact Assessment Regulations of 2012, the Proponent appointed Excel Dynamic Solutions (Pty) Ltd (EDS) to conduct the required Environmental Assessment (EA) process on their (Proponent's) behalf, and thereafter, apply for an Environmental Clearance Certificate (ECC) for the proposed establishment of a Training College approximately 70 km east of Okongo in the Ohangwena Region (Republic of Namibia, 2007; MET, 2012). There were no formal Terms of Reference (ToR) provided to EDS by the Proponent. The Consultant instead relied on the requirements of the Environmental Management Act (No. 7 of 2007) (EMA) and its EIA Regulations (Government Notice No. 30 of 2012) to conduct the study.

The application for the ECC **(Appendix A**) is compiled and submitted to the Ministry of Environment and Tourism (MET), the environmental custodian for project registration purposes. Upon submission of an Environmental Scoping Assessment (ESA) Report and Draft Environmental Management Plan (EMP) **(Appendix B)**, an ECC for the proposed project may be considered by the Environmental Commissioner at the MET Department of Environmental Affairs and Forestry (DEAF).

The Environmental Assessment project is headed by Ms. Iyaloo Nakale, a qualified and experienced Environmental Assessment Practitioner (EAP). The EAP Curriculum Vitae (CV) is presented in **Appendix C**.

1.3 Motivation for the Proposed Project

In Namibia, the Environmental Management Act (No. 7 of 2007) and its Environmental Impact Assessment Regulations of 2012 stipulate that certain listed activities require an Environmental Clearance Certificate (ECC) prior to implementation. Among these listed activities are land use and development activities, including the construction of institutional facilities and associated infrastructure (Republic of Namibia, 2007). Since the Namibian Correctional Service is undertaking the establishment of a new Training College and associated facilities in the Ohangwena Region, the proposed project falls directly within these regulated categories.

The ECC process serves as a safeguard to ensure that environmental risks are thoroughly assessed and mitigated before project commencement. It also provides a mechanism for stakeholder consultation and accountability, enabling affected communities to participate in decisions that may influence their environment and livelihoods (Ministry of Environment and Tourism [MET], 2008). For the proposed Training College project, obtaining an ECC is critical not only for legal compliance but also for ensuring that the development aligns with Namibia's broader environmental management and sustainable development objectives (Republic of Namibia, 2007). Securing this certification will enable the Namibian Correctional Service to demonstrate its commitment to responsible land use planning, environmental protection, and socio-economic development within the Ohangwena Region.

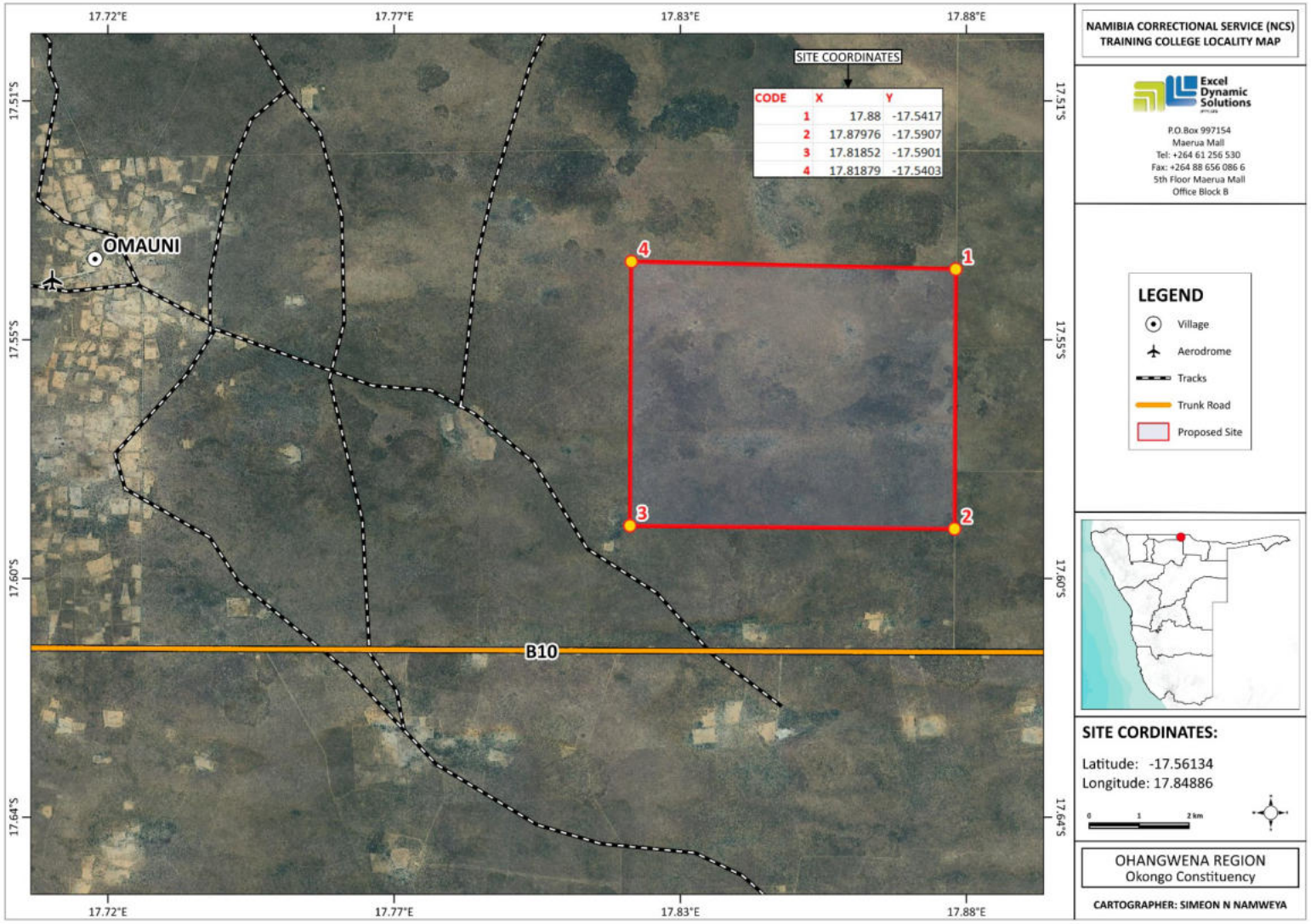

Figure 1: Locality map of the Training College

2. THE DESCRIPTION OF PROJECT ACTIVITIES

This report was developed based on the site visit and assessment, consulted literature, and information provided by the Proponent.

Once the Environmental Clearance Certificate (ECC) is issued, administrative and technical tasks completed, and the Namibian Correctional Service is ready, the construction works and associated activities will commence. There will be earthworks to prepare the site for construction and the installation of the necessary services, infrastructure, and structures required for the establishment of the Training College and associated facilities.

2.1 Proposed Project Phases

- Planning phase – This is the stage during which the Proponent prepares all the administrative and technical requirements needed for the establishment of the Training College and site development. This planning phase will include the procurement of services such as site construction and upgrading contractors.
- Construction phase – This is the phase during which the Training College and associated infrastructure are constructed and the site is developed through appointed contractor(s). This phase will entail earthworks for the erection of training facilities, accommodation units, clinic buildings, and the installation of necessary services and infrastructure, as well as upgrading of site access and fencing.
- Operational phase – This is the stage at which the Proponent will commence with the intended use of the site as a Training College. During this phase, the facilities will be utilised for training, accommodation, and administrative purposes, supported by the associated infrastructure and services.

2.2 Proposed Training College

The proposed Training College for the Namibian Correctional Service is intended to address the need for expanded training capacity and improved institutional infrastructure in the Ohangwena Region. The facility will be established on communal land located approximately 70 km east of Okongo and will comprise training classrooms, practical training areas, administrative offices, accommodation facilities, and supporting infrastructure.

The development of the Training College will be undertaken in a phased manner, allowing for the gradual expansion of facilities in line with institutional requirements and available resources. The

design of the training facilities will take into consideration functional requirements, safety standards, and suitability to the local environmental conditions.

2.3 Supporting Infrastructure and Facilities

As part of the proposed Training College development, various supporting infrastructure and facilities will be established to ensure the effective functioning of the site. These will include internal access roads, water supply and sanitation systems, power supply infrastructure, waste management facilities, and security installations.

The proposed development will also include a clinic that will provide basic health services to trainees and staff, while also offering health assistance to surrounding communities, thereby reducing the need for community members to travel long distances to access healthcare services.

2.4 Resources, Services and Infrastructure

Successful implementation of the Training College will require coordinated planning and provision of resources.

2.4.1 Human Resources

Construction will be undertaken by appointed contractors, who will provide skilled and semi-skilled labour. The Proponent will, where feasible, prioritise the employment of local labour to ensure socio-economic benefits for surrounding communities. During operations, the Training College will be managed by Namibian Correctional Service personnel, supported by administrative, training, and maintenance staff.

2.4.2 Equipment and Vehicles

The project will require construction machinery, light and heavy vehicles, and support equipment for the transportation of personnel, construction materials, and equipment.

2.4.3 Utilities

Water for the project activities will be supplied through pipelines from the nearest available supply point, supplemented by onsite water storage facilities. Construction activities will rely on diesel-powered generators, while the operational phase will be connected to the nearby NORED power grid. Standby generators will be maintained to ensure continuity of power supply.

2.4.4 Health and Safety

All personnel will be required to use appropriate Personal Protective Equipment (PPE), including helmets, gloves, safety boots, and reflective vests. First aid kits and firefighting equipment will be readily available onsite, supported by regular safety training and drills.

2.4.5 Waste Handling

Domestic solid waste generated during construction and operation will be managed in accordance with Integrated Solid Waste Management principles, with waste collected and disposed of at the nearest approved waste disposal facility. Hazardous waste, including waste oils and fuels, will be stored in appropriate containers and disposed of at licensed hazardous waste facilities. Mobile chemical ablution facilities will be provided during construction, while permanent sanitation facilities will be established for the operational phase.

2.4.6 Access and Security

The project site will be accessible via existing access roads, which may be upgraded to accommodate project-related traffic where necessary. Security will include fencing, controlled access points, lockable gates, and 24-hour security personnel to prevent unauthorised access, theft, and vandalism.

2.5 Opportunities from the Treated Wastewater

The establishment of the Training College by the Namibian Correctional Service presents significant opportunities for socio-economic development within the Ohangwena Region. The proposed development is expected to generate employment opportunities during both the construction and operational phases of the project. These opportunities will include temporary employment during construction as well as permanent positions related to training, administration, facility management, and support services during the operational phase. Where feasible, the Proponent will prioritise the use of local labour, thereby contributing to income generation and skills transfer within surrounding communities.

The Training College will further contribute to human capital development through the provision of structured training and skills development programmes. By strengthening the institutional capacity of the Namibian Correctional Service, the facility will support the development of a skilled and professional workforce, which is essential for effective service delivery and long-term institutional sustainability. The presence of a permanent training institution in the region may also stimulate the growth of related services and small businesses that support training activities.

The inclusion of a clinic as part of the proposed development represents an important social benefit. The clinic will provide basic healthcare services to trainees and staff, while also offering healthcare assistance to surrounding communities. This will reduce the need for community members to travel long distances to access medical services, thereby improving access to healthcare and contributing positively to public health outcomes in the project area.

The proposed Training College is also expected to support broader regional development through infrastructure improvements, including access roads, utility services, and enhanced security. These developments may provide indirect benefits to nearby communities by improving accessibility and service provision. Through responsible planning and implementation, the Training College has the potential to contribute meaningfully to sustainable socio-economic development while ensuring that environmental and social considerations are effectively integrated into the project lifecycle

3. LEGAL OBLIGATIONS GOVERNING THE PROPOSED ACTIVITIES

Institutional development projects in Namibia are required to operate within a defined legal and policy framework that regulates environmental protection, land use planning, public health, occupational health and safety, and waste management. Compliance with these laws and policies is a prerequisite for project approval, implementation, and long-term operation. The following subsections outline the principal national legislation, policies, and guidelines applicable to the proposed establishment of the Namibian Correctional Service Training College in the Ohangwena Region.

3.1 The Environmental Management Act (No. 7 of 2007)

The Environmental Management Act (EMA) provides the overarching legal framework for environmental protection and sustainable development in Namibia. The Act establishes the requirement for Environmental Impact Assessments (EIAs) and Environmental Management Plans (EMPs) for listed activities and mandates the issuance of an Environmental Clearance Certificate (ECC) prior to the commencement of such activities (Republic of Namibia, 2007). Land use and development activities, including the construction of institutional facilities, are listed under the Environmental Impact Assessment Regulations of 2012 as activities requiring prior environmental authorisation (Republic of Namibia, 2007).

For the proposed Training College project, compliance with the EMA ensures that potential environmental and social risks associated with land development, construction activities, and long-term operation are systematically identified, assessed, mitigated, and monitored (Brownlie & Treweek, 2018). The Act further promotes the principles of sustainable development, the precautionary approach, and public participation, all of which guide the Proponent's planning and implementation of the proposed development (Republic of Namibia, 2007).

3.2 Land Use Planning and Development Legislation

Land use and development in Namibia are regulated through various legislative instruments aimed at ensuring orderly development and the sustainable use of land resources. The establishment of the Training College on communal land requires adherence to applicable land allocation and land use planning procedures, including approvals from relevant traditional authorities and local or regional governance structures.

Compliance with land use planning requirements will ensure that the proposed development is compatible with existing land uses, including grazing activities, and that potential land use

conflicts are identified and addressed during the planning and implementation phases of the project (Brownlie & Treweek, 2018).

3.3 Public and Environmental Health Act (No. 1 of 2015)

The Public and Environmental Health Act provides the legal basis for safeguarding public and environmental health in Namibia. The Act regulates sanitation, waste management, pollution prevention, and the control of conditions that may be injurious or dangerous to human health (Republic of Namibia, 2015).

For the proposed Training College, compliance with this Act is essential to ensure that sanitation facilities, waste handling practices, and the operation of the onsite clinic are managed in a manner that protects the health of trainees, staff, and surrounding communities (Republic of Namibia, 2015). Proper implementation of health and environmental management measures under this Act will contribute to improved public health outcomes and reduced health risks associated with poor sanitation and waste management (Republic of Namibia, 2015).

3.4 Pollution Control and Waste Management Bill

Although still in draft form, the Pollution Control and Waste Management Bill seeks to regulate the prevention, reduction, and control of pollution in Namibia. The Bill outlines responsibilities for waste generators, establishes measures for the management of hazardous and non-hazardous waste, and provides penalties for illegal dumping and pollution (MET, 2020).

For the proposed Training College project, adherence to the principles of this Bill will guide the safe storage, handling, and disposal of solid and hazardous waste, including waste oils, fuels, and medical waste generated by the clinic (MET, 2020). The project will adopt Integrated Solid Waste Management principles to minimise waste generation and ensure environmentally sound disposal practices (Brownlie & Treweek, 2018).

3.5 Occupational Health and Safety and Labour Legislation

Occupational health and safety in Namibia are governed by various legislative instruments, including the Labour Act and associated health and safety regulations. These instruments aim to protect workers from occupational hazards and to promote safe working conditions.

Compliance with occupational health and safety requirements will ensure that construction workers, trainees, and operational staff are protected from workplace hazards associated with construction activities, training operations, and facility maintenance. The provision of Personal

Protective Equipment (PPE), safety training, and emergency preparedness measures will form an integral part of compliance with this legislative framework.

3.6 Environmental Assessment Policy (1995)

Namibia's Environmental Assessment Policy, although predating the Environmental Management Act, remains relevant in guiding environmental assessment processes. The policy emphasises principles of public participation, accountability, transparency, and precaution in decision-making (MET, 1995).

For the proposed Training College, the policy underscores the importance of involving Interested and Affected Parties, including local communities, traditional authorities, and other stakeholders, throughout the environmental assessment process (MAWLR, 2013). This approach ensures that stakeholder concerns are identified early and incorporated into project planning and mitigation measures.

3.7 National Development and Sectoral Policies

The proposed Training College aligns with national development objectives aimed at human capital development, skills enhancement, and institutional strengthening. Through the provision of training and capacity building, the project supports broader national goals related to education, employment creation, and socio-economic development (Brownlie & Treweek, 2018).

3.8 International Guidelines and Standards

While national legislation provides the primary regulatory framework, relevant international guidelines and best practice standards also inform the planning and implementation of institutional developments. These guidelines emphasise sustainable land use, environmental protection, occupational health and safety, and community well-being.

The Proponent is therefore responsible for ensuring that the proposed activities, as well as the Environmental Assessment process, conform to the principles of the Environmental Management Act and other applicable legislation. The Proponent must further ensure that employees and contractors act in accordance with these legal and policy requirements throughout the project lifecycle.

Table 1: Applicable legal requirements and permits to the activities of the Training College.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Environmental Management Act EMA (No 7 of 2007). Regulated under the Ministry of Environment, and Tourism (MET)	The Act and its 2012 EIA Regulations aims to ensure that the potential impacts of the development on the environment are carefully considered. The Act aims at promoting sustainable management of the environment and use of natural resources. The Environmental Management Act (EMA) is broad; it regulates land use development through environmental clearance certification and/or Environmental Impact Assessments. For new projects, the Act requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27). Regardless to the site, mitigation measures should be developed for implementation during operations. Details requirements for public consultation within a given environmental assessment process (Government Notice No. 30 Section 21). The details the requirements for what should be included in an Environmental Scoping Report (Government Notice No. 30 S8) and an EIA Report (Government Notice No. 30 Section 15).	The EMA should inform and guide this EMP development and its implementation for: -ECC Amendment/Transfer and Renewal: Should the Proponent consider amending/Transferring the Project activities - The ECC needs to be renewed every 3 years (at least 3 months prior to its expiry date). The applications as deem necessary should be made with the Department of Environmental Affairs and Forestry (DEAF) as follows: Office of the Environmental Commissioner: **Tel: 061 284 2701**
Environmental Impact Assessment (EIA) Regulations Government Notice 28-30 (Government Gazette 4878) of February 2012: Regulated under the MET		
Local Authorities Act No. 23 of 1992: Regulated under the Ministry of Urban and Rural Development	To provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties and functions of local authority councils; and to provide for incidental matters. This includes the management of waste.	Namibian Correctional Service (NCS) is the responsible Local Authority of the area, and the project Proponent. Regardless, they should ensure that the Site activities follow the Act and its Regulations, as relevant to the project.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Water Act 54 of 1956: Regulated under the Ministry of Agriculture, Water and Land Reform	The Water Resources Management Act 11 of 2013 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force: -Prohibits the pollution of water and implements the principle that a person disposing of effluent or waste has a duly of care to prevent pollution (S3 (k)). -Provides for control and protection of groundwater (S66 (1), (d (ii)). -Liability of clean-up costs after closure/abandonment of an activity (S3 (l)).	The protection (both quality and quantity/abstraction) of water resources should be a priority. The Town Council should obtain a permit to discharge treated effluent into the environment. These permits include Borehole Drilling Permits, Groundwater Abstraction & Use Permits, and when required, the Wastewater / Effluent Discharge Permits). **Division: Water Policy and Water Law Administration Division** **Tel: (061) 208 715** **Water and Environment Division**
Water Resources Management Act (No 11 of 2013): **Ministry of Agriculture, Water and Land Reform (MAWLR)**	Ensure that the water resources of Namibia are managed, developed, used, conserved, and protected in a manner consistent with, or conducive to, the fundamental principles set out in Section 66, including the protection of aquifers. Subsection 1(d)(iii) provides for the prevention of aquifer contamination and water pollution control (Section 68). The Proponent will be required to apply for and renew the relevant groundwater abstraction and water use permits, and where applicable, wastewater disposal permits, from the Department of Water Affairs (DWA): Directorate of Water Resources Management (Water Environment Division). Once issued, such permits must be renewed as required in accordance with the conditions stipulated therein.	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that "No person shall possess or store any fuel except under authority of a license or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area"	The Proponent should obtain the necessary authorisation form the MME for the storage of fuel on-site. **Ministry of Mines and Energy: Director – Petroleum Affairs**
Pollution Control and Waste Management Bill: Regulated under the MET	The Bill aims to *"prevent and regulate the discharge of pollutants to the air, water and land."* Of particular relevance to the Project are: Section 21(1), which prohibits the discharge of pollutants or waste into any water or watercourse; and Section 55(1), which regulates the production, collection, transport, storage, treatment, and disposal of waste in a manner that prevents harm to human health and the environment.	The Proponent and all contractors should ensure proper management of solid, hazardous, and medical waste generated during the construction and operation of the Training College, including waste from the onsite clinic, to prevent environmental degradation. **No permit or license required.**
Soil Conservation Act (No 76 of 1969): Regulated under the Ministry of Agriculture, Water and Land Reform (MAWLR)	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. This is mainly aimed at soil disturbance through unnecessary creation of new tracks and pollution from project related activities.
Public Health Act (No. 36 of 1919): Regulated under the Ministry of Health and Social Services	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. This includes the provision of health and safety measures, wearing of Personal Protective Equipment (PPE), Health & Safety Trainings, etc. This includes the safety and health of the Town's community.
Health and Safety Regulations GN 156/1997 (Government Gazette 1617): Regulated under the	Details various requirements regarding health and safety of labourers.	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Ministry of Health and Social Services		**No permit or license required.**
Public and Environmental Health Act No. 1 of 2015: Regulated under the Ministry of Health and Social Services	To provide a framework for a structured uniform public and environmental health system in Namibia; and to provide for incidental matters.	
Road Traffic and Transport Act, No. 22 of 1999: Regulated under the Ministry of Works and Transport (Roads Authority of Namibia)	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.	The Proponent should consider applying for a formal access road permit to the site. This permit is to be applied from Roads Authority. **Tel.: 061 284 7027**
Atmospheric Pollution Prevention Ordinance (1976): Regulated under the Ministry of Health and Social Services	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 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: Regulated under the Ministry of Health and Social Services	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 storage and use of hazardous substances on site so that they do not harm or compromise the site environment
Labour Act (No. 6 of 1992): Regulated under the Ministry of Labour, Industrial Relations and Employment Creation (MLIREC)	MLIERC 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 ensures effective implementation of the Labour Act No. 6 of 1992, specifically its	The Proponent should ensure that the construction, operations, and maintenance works, do not compromise the safety and welfare of workers. No permit or license required.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
	Regulations, No. 156 Labour Act, 1992: Regulations relating to the health and safety of employees at work	
Forestry Act 12 of 2001, Amended Act 13 of 2005	Prohibits the removal of any vegetation within 100 m from a watercourse (Forestry Act S22 (1)). The Act prohibits the removal of and transport of various protected plant species.	Should there be protected plant species, which are known to occur within the project site, these are required to be removed and a permit should be obtained from the nearest Forestry office (Ministry of Environment, Forestry and Tourism (MET) prior to removing them. **Director of Forestry Division**
The National Heritage Act (No. 27 of 2004): **Regulated under the Ministry of Education, Arts and Culture through National Heritage Council (NHC) of Namibia** The National Monuments Act (No. 28 of 1969): **Regulated under the NHC**	To provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish an NHC; to establish a National Heritage Register; and to provide for incidental matters. This impact is likely during site preparation for the construction of the treatment Plant when there is a potential of inadvertent unearthing and damage of heritage resources such as old and unmarked graves, for instance. The Act extends the protection of archaeological and historical sites to private and communal land and defines permit procedures regarding activities at such sites.	Should heritage resources (e.g., artefacts, human remains/bones in the subsurface etc.) are discovered at some point on and /or around the site, these should be reported to the National Heritage Council of Namibia for relocation. **Tel: 061 301 903**

4. ENVIRONMENTAL BASELINE: BIOPHYSICAL AND SOCIAL

4.1 Climate

The proposed Training College site is situated approximately 70 km east of Okongo in the Ohangwena Region, in the north-central part of Namibia. The climate of the area is classified as semi-arid, characterised by high evaporation rates that exceed average annual rainfall. Average annual rainfall generally ranges between 400 and 600 mm, with considerable variability in both spatial and temporal distribution. The rainy season typically occurs between December and March and is often associated with short-duration, high-intensity rainfall events. These rains may result in temporary surface runoff and localized flooding in ephemeral drainage channels, although such events are generally short-lived. The remainder of the year is predominantly dry.

Temperature variations are pronounced. Summer months (October to March) experience high daytime temperatures, frequently exceeding 30°C, while winter months (June to August) are milder, with cooler nights that may fall below 10°C. These climatic conditions influence land use practices, water availability, and vegetation cover in the area.

The semi-arid climate and variability in rainfall place pressure on water resources and infrastructure. In this context, the establishment of a Training College requires careful planning of water supply, sanitation, and stormwater management systems to ensure sustainability and resilience to climatic variability. Consideration of climate conditions is therefore essential in the design and operation of the proposed development.

4.2 Topography

The Ohangwena Region is generally characterised by gently undulating terrain with relatively low relief compared to mountainous regions of Namibia. The topography of the proposed Training College site is predominantly flat to gently sloping, with no pronounced hills or steep gradients. The landscape is typical of the Cuvelai Basin, consisting of broad plains interspersed with shallow depressions and ephemeral drainage features.

Site elevation in the broader area averages approximately 1,100 to 1,200 metres above sea level. The relatively flat terrain is favourable for construction activities, although it may influence surface water drainage during heavy rainfall events. Proper site planning and drainage design will therefore be required to prevent localized flooding and soil erosion during the construction and operational phases.

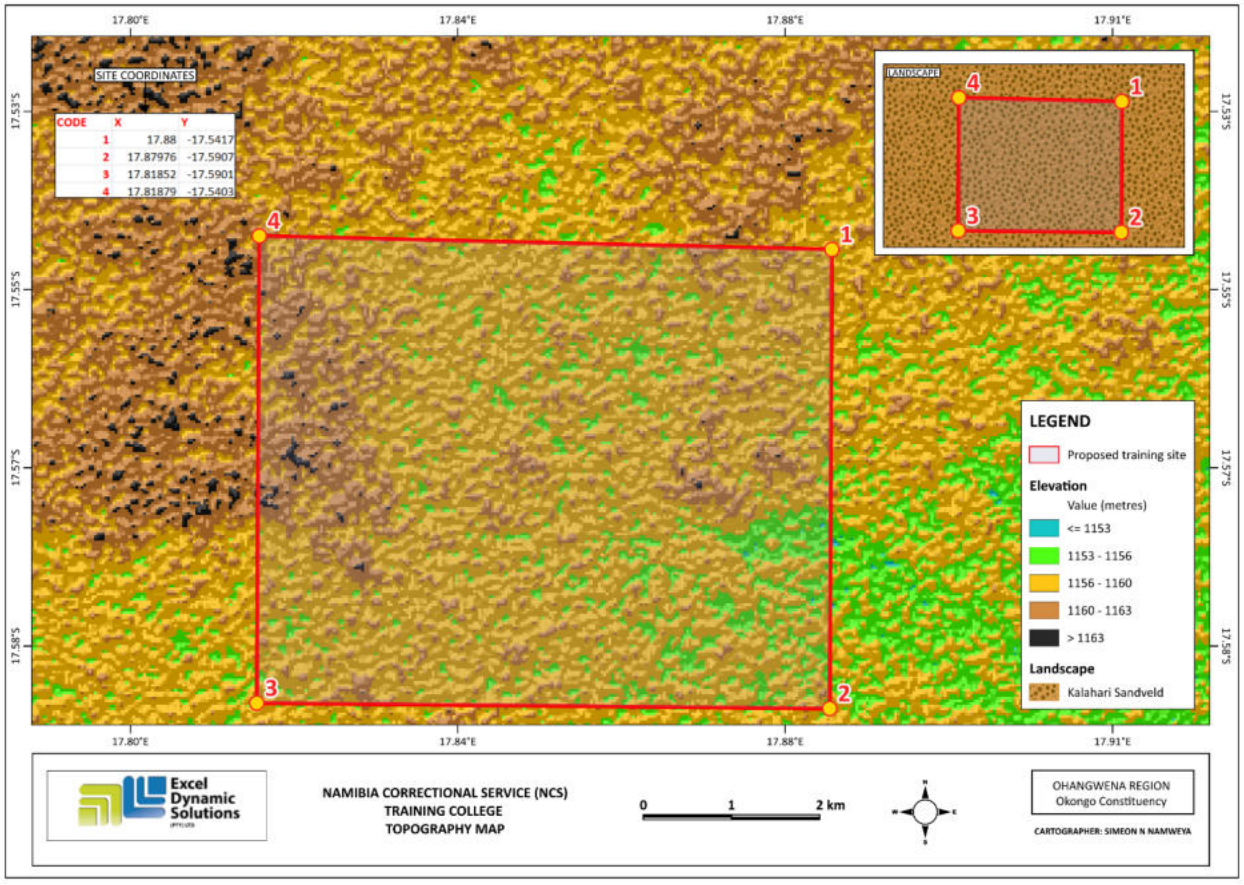

Figure 2: Topography Map of the Training College site.

4.3 Geology

Geologically, the project area falls within the broader geological formations of northern Namibia, which are dominated by sedimentary and unconsolidated deposits associated with the Cuvelai Basin (Miller, 2008). These deposits consist mainly of sands, silts, and clays, underlain by older basement rocks at greater depth.

Groundwater in the region is generally associated with shallow aquifers within unconsolidated sediments and deeper fractured rock systems. These aquifers are an important source of water for domestic use, livestock watering, and institutional supply (Miller, 2008). However, shallow aquifers are particularly vulnerable to contamination due to limited natural filtration capacity.

Given the reliance on groundwater resources in the region, careful management of sanitation systems, wastewater handling, and stormwater runoff at the Training College site is essential to minimise the risk of groundwater contamination. The proposed development will therefore require

appropriate design and operational controls to safeguard subsurface geological and hydrogeological conditions.

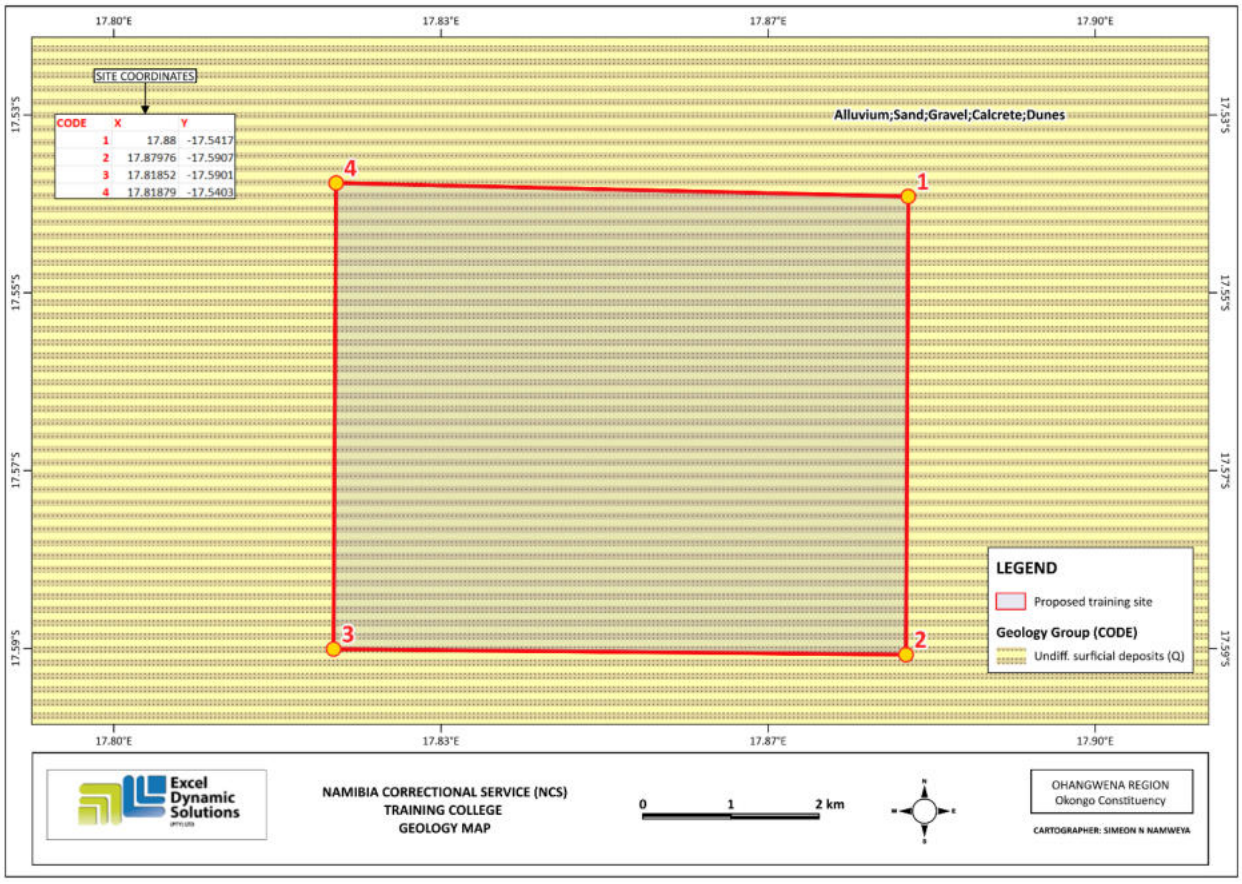

Figure 3: Geology of the Training College site.

4.4 Soils

The soils within the project area are predominantly sandy to loamy in nature, typical of the Cuvelai Basin. These soils are generally well-drained but may be susceptible to erosion when vegetation cover is removed. In some areas, soils may exhibit calcareous characteristics, with moderate alkalinity.

From an engineering and environmental perspective, these soils present considerations related to bearing capacity, erosion potential, and permeability. During site clearing and construction activities, soil disturbance may increase susceptibility to erosion, particularly during the rainy season.

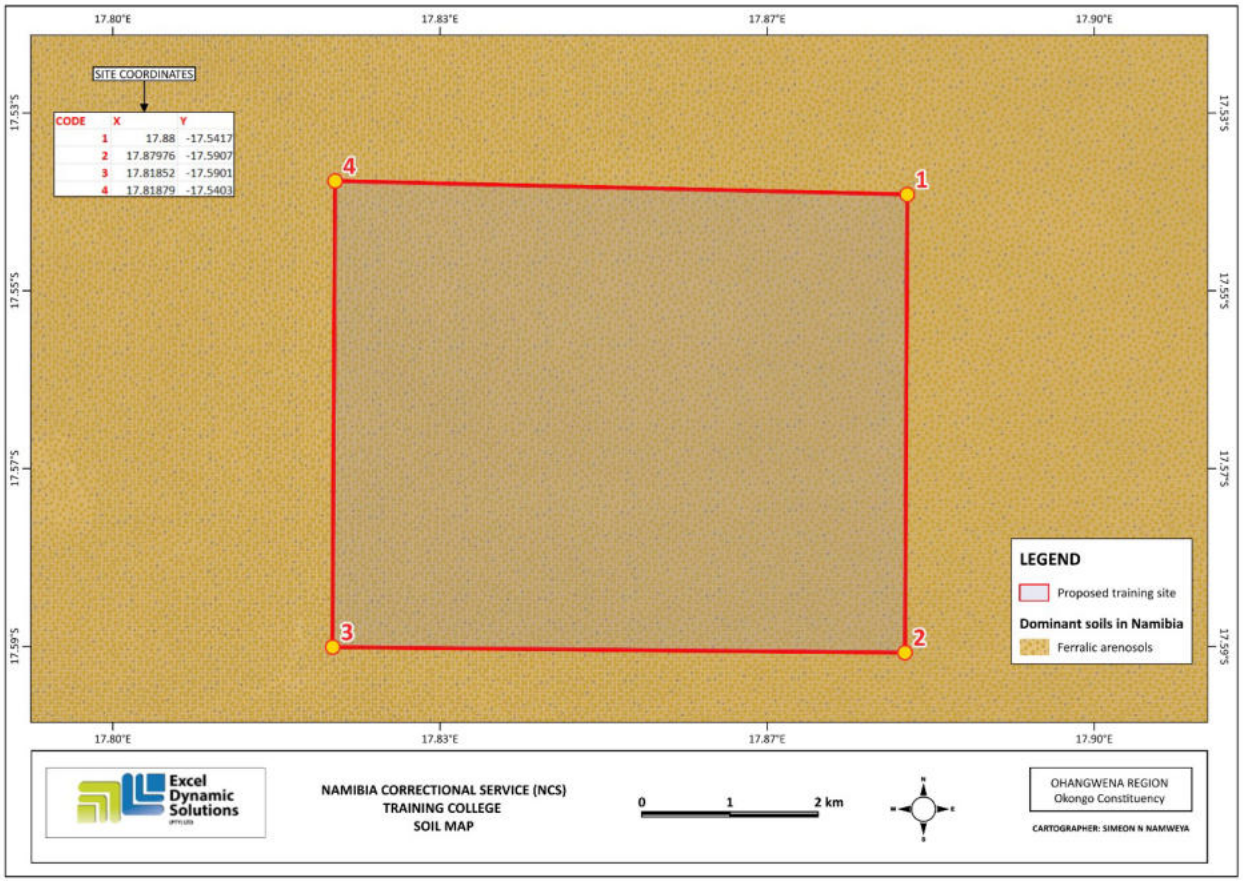

Figure 4: Soil Map of the Training College site.

Figure 5: Soil type observed at the site

4.5 Hydrology

Surface Water

The project area does not contain perennial rivers or permanent surface water bodies. Instead, surface drainage occurs through ephemeral channels and shallow depressions that convey runoff during periods of heavy rainfall (Mendelsohn & el Obeid, 2004). These ephemeral systems play an important ecological role by supporting temporary habitats and facilitating groundwater recharge.

Since surface water flows are short-lived and localized, protecting these drainage features from contamination during construction and operation of the Training College is important.

Groundwater

Groundwater is the primary source of water in the Ohangwena Region. Boreholes tapping shallow and deeper aquifers supply water for domestic, institutional, and agricultural uses (Mendelsohn & el Obeid, 2004). The groundwater potential in the project area is considered moderate, but aquifers are vulnerable to pollution due to their shallow nature in some locations.

Improper management of sanitation facilities and wastewater could result in contamination of groundwater resources. The proposed Training College will therefore incorporate appropriate wastewater management systems, including controlled sanitation facilities and regular monitoring, to reduce the risk of groundwater pollution (Mendelsohn & el Obeid, 2004). Compliance with applicable water legislation and best practice guidelines will be essential to ensure sustainable groundwater use.

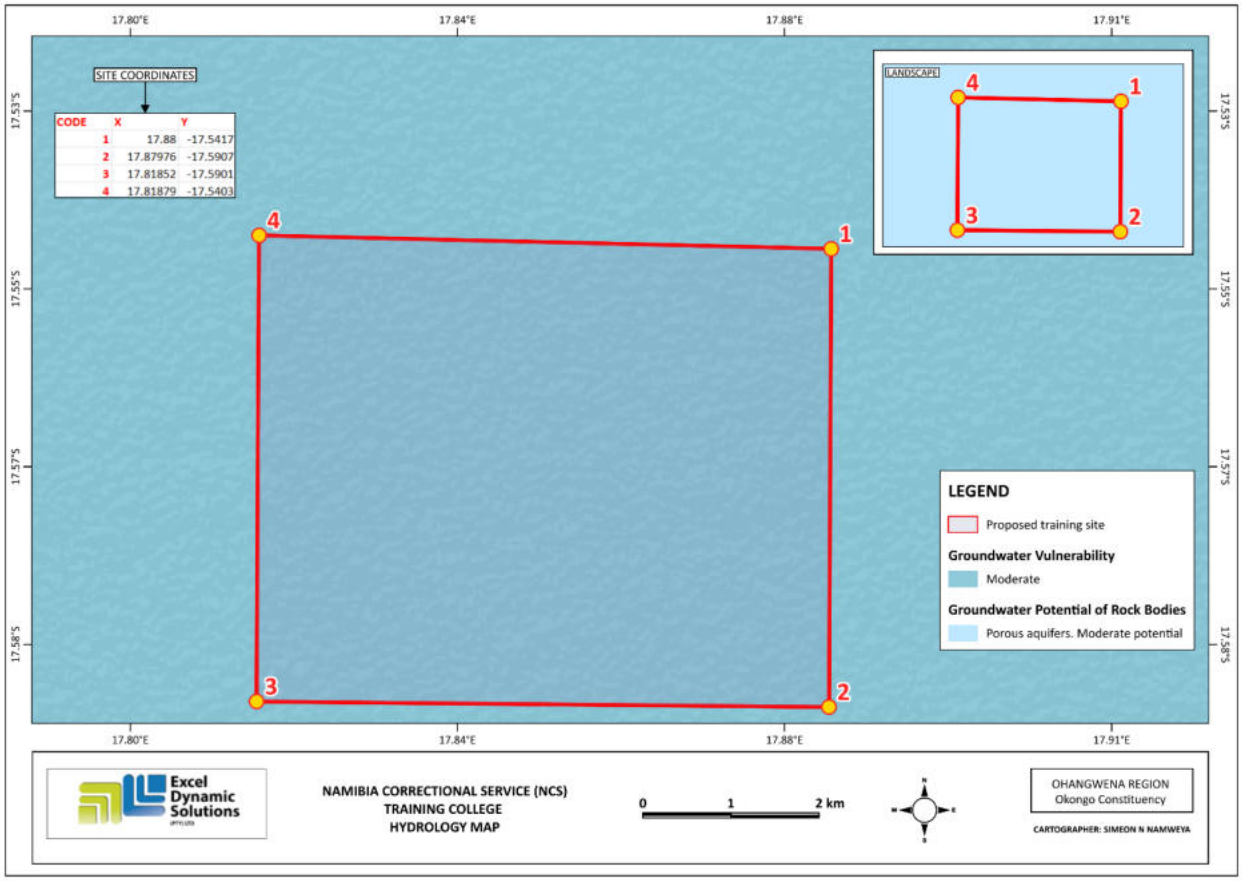

Figure 6: Hydrology Map of the Training College site.

4.6 Flora

The project area falls within the savanna biome characteristic of northern Namibia which is generally sparse to moderately dense, consisting mainly of grasses, shrubs, and scattered trees adapted to semi-arid conditions (Miller, 2008). The site falls within the Northeastern Kalahari Woodland which is a vital ecological area that supports diverse flora and fauna while providing resources and cultural significance to local communities.

The woodland is dominated by species such as **Acacia**, **Commiphora**, and **Boscia**. The trees are typically thorny and well-adapted to dry conditions. Common vegetation types include mixed shrubland and grassland species that support grazing activities. Clearing of vegetation for construction will therefore need to be minimised and restricted to areas required for infrastructure development.

Rehabilitation of disturbed areas through re-vegetation with indigenous species will be important to reduce erosion and maintain the ecological character of the site.

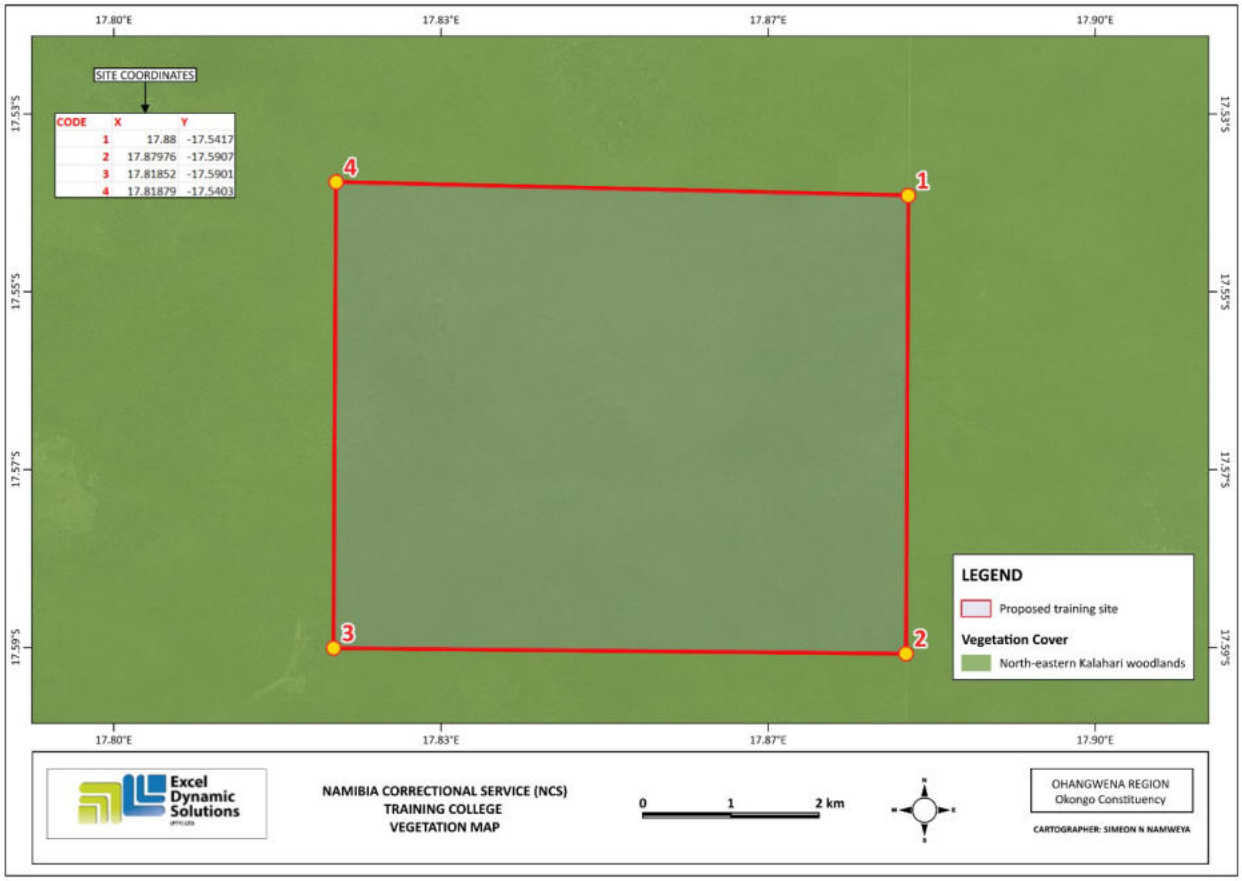

Figure 7: Vegetation Map of the Training College site.

Figure 8: Vegetation observed on site

4.7 Fauna

Faunal presence in the project area is typical of semi-arid communal landscapes such as cattle, goats and donkeys. Wildlife is generally limited to small mammals, reptiles, birds, and insects adapted to human-modified environments. Larger wildlife species are more commonly found in protected or conservancy areas.

Human activities such as construction noise, vehicle movement, and vegetation clearing may temporarily disturb fauna within the site. However, given the existing level of human activity in the broader area, impacts on fauna are expected to be limited. Proper site control will reduce the risk of attracting scavenging animals.

4.8 Land Use

Land use in the project surrounding area is predominantly communal, characterised by a combination of residential settlements, subsistence agriculture, livestock grazing and institutional uses. The proposed Training College site is located on communal land within the Okongo conservancy in the Ohangwena Region and is not currently used for intensive agricultural purposes (Mendelsohn et al., 2002).

The establishment of the Training College represents a change in land use from predominantly communal activities to institutional development. This change is considered appropriate, provided that engagement with local communities and traditional authorities is maintained. Proper planning will ensure that the development does not unduly restrict access to communal resources or conflict with existing land use practices.

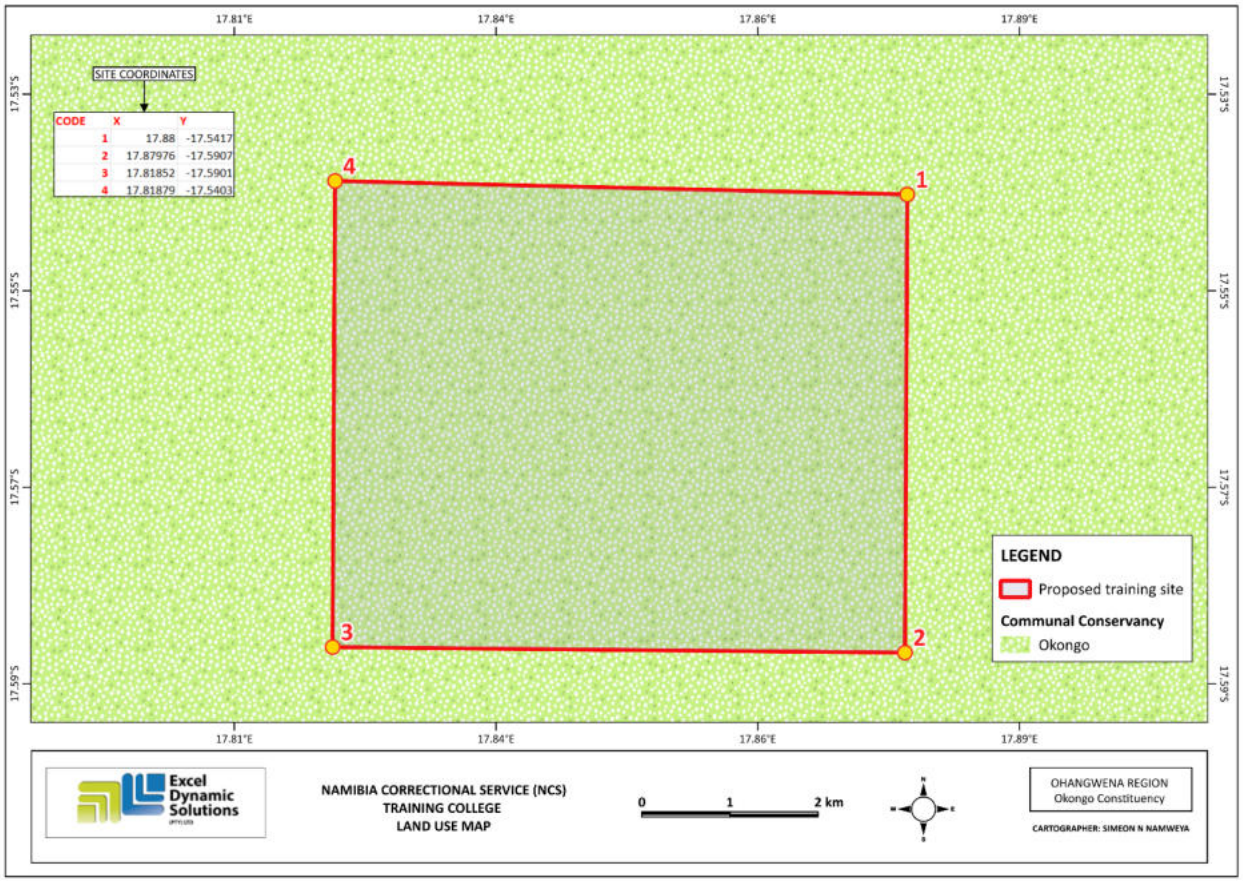

Figure 9: Land Use Map for the Training College site.

4.9 Socio-Economic Environment

The Ohangwena Region is one of the most densely populated regions in Namibia, with livelihoods largely based on subsistence farming, livestock rearing, and public sector employment. Communities in the vicinity of the project area rely heavily on government services, social infrastructure, and informal economic activities.

Unemployment and poverty remain challenges in the region, particularly among youth. Access to training and skills development opportunities is limited in rural areas. The proposed Training College is therefore expected to contribute positively to the socio-economic environment by providing employment opportunities during construction and operation, as well as long-term skills development and institutional capacity building.

The inclusion of a clinic within the Training College will further enhance social benefits by improving access to basic healthcare services for trainees, staff, and surrounding communities.

These socio-economic benefits align with national development objectives related to human capital development, service delivery, and regional development.

4.10 Heritage and Archaeology

There are no formally recorded archaeological or heritage sites within the proposed Training College site. However, as with any development on communal land, there is potential for chance finds, such as artefacts or unmarked graves, during site preparation and construction activities.

In accordance with the National Heritage Act (No. 27 of 2004), all construction activities must adhere to heritage protection requirements. Section 55(4) of the Act requires that any archaeological, palaeontological, or cultural resources discovered during construction be reported to the National Heritage Council of Namibia as soon as practicable. Construction activities should cease in the immediate area of discovery until appropriate guidance is provided.

5. PUBLIC CONSULTATION PROCESS

Public consultation is an important component of the Environmental Assessment (EA) process. It provides potential Interested and Affected Parties (I&APs) with an opportunity to comment on and raise any issues relevant to the proposed project for consideration as part of the assessment process. Public input assists the Environmental Assessment Practitioner (EAP) in identifying potential environmental and social impacts and determining whether further investigations are required (Republic of Namibia, 2007; MET, 2012). Public consultation can also aid in the identification of appropriate mitigation measures. Public consultation for this Environmental Scoping Assessment (ESA) study has been conducted in accordance with the Environmental Management Act (EMA) (No. 7 of 2007) and its Environmental Impact Assessment (EIA) Regulations of 2012 (Republic of Namibia, 2007; MET, 2012).

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

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

Newspaper advertisements of the proposed activities were placed in two widely read national newspapers, namely New Era Newspaper and The Namibian Newspaper. The project advertisement and announcement ran for two consecutive weeks, inviting members of the public to register as I&APs and submit comments or concerns regarding the proposed establishment of the Training College. A summary of the pre-identified and registered I&APs is presented below, while the complete list of I&APs is provided in Appendix D.

Table 2: Summary of Interested and Affected Parties (I&APs)

National (Ministries and State-Owned Enterprises)
Ministry of Environment and Tourism
Ministry of Home Affairs, Immigration, Safety and Security (MHAISS)
Regional, Local, and Traditional Authorities
Ohangwena Regional Council
Okongo Town Council
Oukwanyama Traditional Authority
Landowners / Interested members of the public
Community members and the general public

5.2 Communication with I&Aps

Regulation 21 of the EIA Regulations outlines the steps to be followed during the public consultation process, and these provisions were used to guide consultation for the proposed Training College development. Communication with I&APs concerning the proposed project was facilitated through the following means and in the order outlined below:

- A Background Information Document (BID) containing brief information about the proposed development was compiled and distributed to identified and registered Interested and Affected Parties (I&APs);
- Project Environmental Assessment notices were published in the New Era Newspaper (14 and 21 November 2025), and The Namibian Newspaper (17 and 24 November 2025), briefly explaining the activity and its locality, inviting members of the public to register as I&APs and submit their comments/concerns.
- Public notice to inform members of the public about the EIA process was placed at Okongo Town Council, Omauni community forest center and at the site.
- A consultation meeting was scheduled and conducted on the 18 of November 2025 with affected community members at 10h00 at Omauni Community Forest Center, Okongo, Ohangwena Region. The issues and concerns raised were noted and used to form the basis for the ESA Report and EMP.

Figure 10: Site Notices at Okongo Town Council, Omauni Community Forest Center and Site

Figure 11: Public Consultation Meeting at Omauni Community Forest Center, Okongo, Ohangwena Region.

Issues raised by I&APs during the public consultation process were recorded and incorporated into this Environmental Scoping Assessment (ESA) Report and the Environmental Management Plan (EMP). A summary of the main issues raised during public engagement sessions is presented in **Table 3** below. Detailed records of issues raised and responses provided by Excel Dynamic Solutions (Pty) Ltd are attached in **Appendix G**.

Table 3: Summary of main issues raised and comments received during public consultation engagements

Issue	Concern
Suggestion to reduce the project site	Grazing area
Farmer's grazing opportunities reduced	Land use
Employment opportunities for local community members	Socio-economic expectations

6. IMPACT IDENTIFICATION, ASSESSMENT AND MITIGATION MEASURES

6.1 Impact Identification

Proposed developments and activities are usually associated with different potential positive and/or negative impacts. For an environmental assessment, the focus is placed mainly on the negative impacts (Republic of Namibia, 2007; IFC, 2013). This is done to ensure that these impacts are addressed by providing adequate mitigation measures such that an impact's

significance is brought under control while maximizing the positive impacts of the development (Glasson et al., 2012). The potential positive and negative impacts that have been identified from the proposed Training College activities are listed as follows:

Positive impacts:

- Creation of jobs for the local communities.
- Producing a trained workforce and small businesses that can service communities and may initiate related businesses.
- Boosting local and regional economic growth.
- Opening up other investment opportunities and infrastructure-related development benefits.
- Improved access to training and institutional capacity building.

Negative impacts:

- Disturbance to grazing areas.
- Land degradation and biodiversity loss.
- Generation of dust during construction activities.
- Water resource use.
- Soil and water resource pollution.
- Waste generation.
- Occupational health and safety risks.
- Vehicular traffic use and safety.
- Noise and vibrations associated with construction activities.
- Disturbance to archaeological and heritage resources.
- Impacts on local road infrastructure.
- Social nuisance: local property intrusion and disturbance.
- Social nuisance: job seeking and differing norms, culture, and values.

- Impacts associated with closure and decommissioning of works.

6.2 Impact Assessment Methodology

The Environmental Assessment process primarily ensures that potential impacts that may occur from project activities are identified and addressed through environmentally cautious approaches and legal compliance. The impact assessment method used for this project follows Namibia's Environmental Management Act (No. 7 of 2007) and its Environmental Impact Assessment Regulations of 2012, as well as the International Finance Corporation (IFC) Performance Standards (Republic of Namibia, 2007; IFC, 2013).

The identified impacts were assessed in terms of extent (spatial scale), duration (temporal scale), magnitude (severity), and probability (likelihood of occurrence), as presented in Table 4, Table 5, Table 6, and Table 7 respectively.

To enable a scientific approach to determining environmental significance, a numerical value is assigned to each rating scale (Glasson et al., 2012). This methodology ensures uniformity and allows potential impacts to be assessed in a standardised manner so that a wide range of impacts can be compared. It is assumed that the significance of a potential impact is a good indicator of the level of risk associated with that impact.

The following process is applied to each potential impact:

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

The recommended mitigation measures prescribed for each potential impact contribute towards achieving environmentally sustainable operational conditions for the Training College and associated facilities across various components of the biophysical and social environment. The following criteria were applied in this impact assessment:

6.2.1 Extent (Spatial Scale)

Extent refers to the physical and spatial scale over which an impact may be experienced. Table 4 presents the rating of impacts in terms of spatial extent.

Table 4: Extent or spatial impact rating

Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
The impact is localised within the site boundary: site only	The impact extends beyond the site boundary: local	Impacts felt within adjacent biophysical and social environments: regional	Impact widespread far beyond site boundary: regional	Impact extends to national or international boundaries

6.2.2 Duration

Duration refers to the timeframe over which the impact is expected to occur, measured relative to the lifetime of the project. Table 5 presents the rating of impacts in terms of duration.

Table 5: Duration impact rating

Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
Immediate mitigation possible, immediate recovery	Short-term impacts (0–5 years), quickly reversible	Medium-term impacts (5–15 years), reversible over time	Long-term impacts	Permanent impacts extending beyond closure; irreplaceable or irreversible commitment of resources

6.2.3 Intensity, Magnitude or Severity

Intensity refers to the degree or magnitude to which an impact alters the functioning of an environmental or social component. The magnitude of alteration can be either positive or negative. These ratings were also considered during the assessment of severity. Table 6 presents the rating of impacts in terms of intensity, magnitude, or severity.

Table 6: Intensity, magnitude or severity impact rating

Type of Criteria	Negative
H- (10)	Very high deterioration; high levels of injury or illness; total loss of habitat; total alteration of ecological processes; extinction of rare species
M/H- (8)	Substantial deterioration; serious injury or illness; significant loss of habitat or biodiversity; severe alteration of processes
M- (6)	Moderate deterioration; discomfort; partial loss of habitat or biodiversity; moderate alteration
M/L- (4)	Low deterioration; slight but noticeable alteration in habitat or biodiversity
L- (2)	Minor deterioration; nuisance or irritation; negligible change in habitat, biodiversity, or environmental quality

6.2.4 Probability of Occurrence

Probability describes the likelihood of an impact occurring. This determination is based on experience from similar projects and professional judgement. Table 7 presents the rating of impacts in terms of probability of occurrence.

Table 7: Probability of occurrence impact rating

Low (1)	Medium/Low (2)	Medium (3)	Medium/High (4)	High (5)
Improbable; seldom occurs; no known vulnerability	Likely to occur occasionally; low vulnerability	Possible and frequent; low to medium vulnerability	Probable if mitigation is not implemented; medium vulnerability	Definite and continuous regardless of preventative measures; high vulnerability

6.2.5 Significance

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

Once the relevant factors (Table 5, Table 6, Table 7, and Table 8) have been ranked for each potential impact, the impact significance is assessed using the following formula:

SIGNIFICANCE POINTS (SP) = (MAGNITUDE + DURATION + SCALE) × 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 significance rating scale presented in Table 8.

Table 8: Significance rating scale

Significance	Environmental Significance Points	Colour Code
High (positive)	>60	H
Medium (positive)	30–60	M
Low (positive)	1–30	L
Neutral	0	N
Low (negative)	-1 to -30	L
Medium (negative)	-30 to -60	M
High (negative)	<-60	H

Positive (+) – Beneficial impact
Negative (-) – Deleterious/adverse impact
Neutral – Impacts are neither beneficial nor adverse

For impacts with a high negative significance rating, mitigation measures are recommended to reduce the impact to medium or low negative significance, provided the impact can be sufficiently controlled. To maintain a low or medium significance rating, monitoring is recommended to confirm that impacts remain under control.

The assessment of project phases is conducted for both pre-mitigation and post-mitigation scenarios.
The risk/impact assessment is driven by three factors:

- **Source:** the cause or origin of the impact;
- **Pathway:** the route taken by the source to reach a receptor; and
- **Receptor:** a person, animal, plant, ecosystem, property, or water resource.

A pollutant linkage occurs when a source, pathway, and receptor exist together. Mitigation measures aim first to avoid risk, and where this is not possible, to minimise the impact. Once mitigation measures are applied, the identified risk is reduced to a lower significance level (Booth, 2011).

This assessment focuses on the three project phases, namely planning, construction, and decommissioning. The potential negative impacts arising from the proposed Training College activities are described, assessed, and mitigation measures are provided accordingly (Booth, 2011). Additional mitigation measures in the form of management action plans are included in the Draft Environmental Management Plan (EMP).

6.3 Assessment of Potential Negative Impacts

The main potential negative impacts associated with the construction, operation, and decommissioning phases of the proposed Training College are identified and assessed below.

6.3.1 Disturbance to Grazing Areas

The proposed Training College site is located on communal land that supports livestock grazing. Construction activities such as site clearing, excavation, and earthworks may result in the disturbance of grazing land. This may temporarily reduce grazing areas available to livestock that depend on existing vegetation.

The effect of construction activities on grazing land, particularly if conducted over a wider spatial extent and without mitigation, may hinder grazing availability (Booth, 2011). Under baseline conditions, the impact is considered to be of medium significance. With the implementation of appropriate mitigation measures, the significance of the impact will be reduced to low. The impact is assessed in Table 9 below.

Table 9: Assessment of impacts on grazing areas

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -4	M: -3	M: -4	M/H: 5	M: -55
Post-mitigation	L/M: -2	L/M: -2	L/M: -4	L/M: 3	L: -24

6.3.2 Land Degradation and Loss of Biodiversity

Fauna:

Construction activities may result in land degradation and habitat disturbance, affecting fauna ranging from microorganisms to small mammals, reptiles, and birds. Movement of construction personnel, machinery, and vehicles may disturb livestock. There is also a risk of illegal hunting if site controls are not enforced.

Flora:

Direct impacts on flora will primarily occur through vegetation clearing for access routes and infrastructure development. Dust generated by construction vehicles may further affect surrounding vegetation. While some vegetation loss is unavoidable, the impact is expected to be localised and manageable due to the moderate abundance of vegetation within the project area. Without mitigation, the impact is rated as medium significance. With effective mitigation measures, the impact significance will be reduced to low. The assessment is presented in Table 10 below.

Table 10: Assessment of impacts of construction works on biodiversity

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -4	M: -4	M: -6	M/H: 4	M: -56
Post-mitigation	L/M: -3	L/M: -3	L/M: -4	L/M: 3	L: -30

6.3.3 Generation of Dust (Air Quality)

Dust generated from access roads, vehicle movements, and construction activities such as excavation may compromise air quality in the surrounding area. Heavy vehicles transporting construction materials may contribute to increased dust levels.

Without mitigation, the impact is of medium significance. With appropriate mitigation measures, including dust suppression, the impact significance will be reduced to low. The impact is assessed in Table 11 below.

Table 11: Assessment of impacts of construction works on air quality

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -3	M: -3	M/L: -4	M/H: 4	M: -40
Post-mitigation	L: -2	L: -2	L: -2	L: -1	L: -6

6.3.4 Water Resources Use

Project activities may impact water resources through abstraction and potential pollution. Construction activities require water for equipment operation and site maintenance. Excessive abstraction may affect communities and livestock that depend on the same groundwater resources.

The impact is temporary and limited to the construction period. Without mitigation, the impact is rated as medium. With effective mitigation, the impact significance is reduced to low, as presented in Table 12 below.

Table 12: Assessment of project impacts on water resource use

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -3	M/H: -3	L/M: -4	M/H: -4	M: -40
Post-mitigation	L/M: -1	L/M: -1	L: -2	L/M: -3	L: -12

6.3.5 Soil and Water Resources Pollution

Potential pollution sources include fuels, lubricants, and domestic wastewater generated during construction. Spills may infiltrate soils and contaminate groundwater if not managed properly. Prior to mitigation, the impact significance is medium to high. With implementation of mitigation measures, the impact is reduced to moderate. The assessment is shown in Table 13 below.

Table 13: Assessment of impacts on soils and water resources (pollution)

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -5	M/L: -3	M/L: -3	M: -4	M: -44
Post-mitigation	L: -3	M: -3	L: -3	L/M: -3	L: -27

6.3.6 Waste Generation

Construction activities will generate domestic, general, and potentially hazardous waste. Improper handling may lead to soil and groundwater pollution. Without mitigation, the impact is of medium significance. With effective waste management, the impact significance will be reduced to low (Table 14).

Table 14: Assessment of waste generation impact

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L/M: -2	L/M: -2	M: -6	M: -5	M: -50
Post-mitigation	L: -1	L: -1	L: -2	L/M: -2	L: -8

6.3.7 Occupational Health and Safety Risks

Workers may be exposed to safety risks from machinery, vehicles, fuel storage, and fire hazards. Without mitigation, the impact is of medium significance. With mitigation, the impact will be reduced to low (Table 15).

Table 15: Assessment of health and safety impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -3	M/L: -2	M: -6	M/H: -4	M: -44
Post-mitigation	L/M: -2	L/M: -2	L: -2	L/M: -2	L: -12

6.3.8 Vehicular Traffic Use and Safety

Increased vehicle movement during construction may affect local roads and safety. Without mitigation, the impact is medium; with mitigation, it is reduced to low (Table 16).

Table 16: Assessment of construction-related traffic impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -4	M/H: -3	L/M: -4	M/H: -5	M: -55
Post-mitigation	L/M: -2	L/M: -2	L: -2	L/M: -2	L: -12

6.3.9 Noise and Vibrations

Construction noise may disturb nearby communities. Without mitigation, the impact is medium; with mitigation, it is reduced to low (Table 17).

Table 17: Assessment of noise and vibration impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L/M: -2	L/M: -2	M: -6	M/H: -3	M: -30
Post-mitigation	L: -1	L/M: -2	L: -2	L/M: -2	L: -10

6.3.10 Disturbance to Archaeological and Heritage Resources

The Ohangwena Region may contain unrecorded heritage resources. Without mitigation, the impact is medium. With mitigation, it is reduced to low (Table 18).

Table 18: Assessment of impacts on archaeological and heritage resources

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -3	M/H: -4	M: -6	M/H: -4	M: -52
Post-mitigation	L/M: -2	L/M: -2	L: -2	L/M: -2	L: -12

6.3.11 Impact on Local Roads/Routes

Heavy vehicles may affect road conditions during construction. Without mitigation, the impact is medium; with mitigation, it is reduced to low (Table 19).

Table 19: Assessment of impacts on local roads

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/H: -4	M: -3	M: -6	M: -3	M: -39
Post-mitigation	L: -1	L: -1	M/L: -4	M/L: -2	L: -12

6.3.12 Social Nuisance: Local Property Intrusion and Disturbance

Non-resident workers may cause disturbance or damage to local property. Without mitigation, the impact is medium; with mitigation, it is reduced to low (Table 20).

Table 20: Assessment of social nuisance impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M: -2	M: -3	M: -4	M/H: -3	M: -27
Post-mitigation	L: -1	L: -1	M/L: -4	M/L: -2	L: -12

7.4 Cumulative Impacts Associated with the Proposed Activity

Cumulative impacts are defined as impacts resulting from successive, incremental, or combined effects of a project when added to other existing or planned developments (IFC, 2013).

The main cumulative impacts associated with the proposed Training College include:

- Road infrastructure: Temporary contribution to increased traffic during construction; impact is not considered significant due to limited duration.
- Water use: Increased demand during construction; mitigation measures are required to reduce overuse.

7 RECOMMENDATIONS AND CONCLUSION

7.1 Recommendations

The potential positive and negative impacts of the proposed activities were identified and assessed, and appropriate management and mitigation measures (to negative impacts) were made thereof for implementation by the Proponent, their contractors, and project-related employees.

Mitigation measures for identified issues have been provided in the Environmental Management Plan, for the Proponent to avoid and/or minimize significant impacts on the environmental and social components. Most of the potential impacts were found to be of medium-rating significance. With effective implementation of the recommended management and mitigation measures, a reduced rating in the significance of adverse impacts is expected from Medium to Low (MET, 2012). To maintain the desirable rating, the implementation of management and mitigation measures should be monitored by the Proponent directly, or their Environmental Control Officer (ECO). The monitoring of implementation will not only be done to maintain a low rating but also to ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed right away (MET, 2012).

The Environmental Consultant is confident that the potential negative impacts associated with the proposed project activities can be managed and mitigated through the effective implementation of the recommended management and mitigation measures, together with consistent effort and commitment to monitoring the implementation of these measures (MET, 2012).

It is, therefore, recommended that in the case of granting an Environmental Clearance Certificate (ECC) for this project, the proposed establishment of the Training College may be granted an ECC, provided that:

- All the management and mitigation measures provided in the EMP are effectively and progressively implemented.
- All required permits, licences, and approvals for the proposed activities are obtained as required. These include approvals relating to land access agreements on communal land and other statutory requirements applicable to construction and operation of the Training College and associated facilities.
- The Proponent and all project workers and contractors must comply with the legal requirements governing the project and ensure that all required permits and/or approvals are obtained and renewed as stipulated by the issuing authorities.
- Site areas where activities have ceased are rehabilitated, as far as practicable, to their pre-state.

7.2 Conclusion

It is crucial for the Proponent and their contractors to effectively implement the recommended management and mitigation measures to protect the biophysical and social environment throughout the project duration. This will be undertaken to promote environmental sustainability while ensuring a smooth and harmonious existence and purpose of the Training College activities within the surrounding community and environment at large. It is also to ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed accordingly. Lastly, should the ECC be issued, the Proponent will be expected to comply with the ECC conditions as well as all legal requirements governing the construction, operation, and related activities of the proposed Training College.

References

Brownlie, S., & Treweek, J. (2018). *Biodiversity-inclusive impact assessment*. Routledge.

Canter, L. W. (1996). *Environmental impact assessment*. McGraw-Hill.

Communal Land Reform Act 5 of 2002 (Namibia).

Correctional Service Act 9 of 2012 (Namibia).

Department of Water Affairs. (2011). *Cuvelai Basin water resources assessment*. Government of the Republic of Namibia.

Employees' Compensation Act 30 of 1941 (Namibia).

Environmental Impact Assessment Regulations, Government Notice No. 30 of 2012 (Namibia).

Environmental Management Act 7 of 2007 (Namibia).

Forest Act 12 of 2001 (Namibia).

Glasson, J., Therivel, R., & Chadwick, A. (2012). *Introduction to environmental impact assessment* (4th ed.). Routledge.

Labour Act 11 of 2007 (Namibia).

Mendelsohn, J., Jarvis, A., Roberts, C., & Robertson, T. (2002). *Atlas of Namibia: A portrait of the land and its people*. David Philip Publishers.

Mendelsohn, J., & el Obeid, S. (2004). *Okavango River: The flow of a lifeline*. Struik Publishers.

Miller, R. McG. (2008). *The geology of Namibia*. Ministry of Mines and Energy, Geological Survey of Namibia.

Ministry of Agriculture, Water and Land Reform. (2020). *Groundwater resources and management in northern Namibia*. Government of the Republic of Namibia.

Ministry of Environment and Tourism. (2012). *Environmental impact assessment regulations*. Government of the Republic of Namibia.

Ministry of Environment, Forestry and Tourism. (2021). *Environmental management and clearance procedures*. Government of the Republic of Namibia.

Ministry of Environment, Forestry and Tourism. (2022). *Guidelines for environmental assessment and management*. Government of the Republic of Namibia.

Ministry of Urban and Rural Development. (2018). *Regional planning and land use frameworks for communal areas*. Government of the Republic of Namibia.

Namibian Constitution of the Republic of Namibia, 1990.

Namibian Correctional Service. (2019). *Reducing reoffending through rehabilitation: Policy summary*. Government of the Republic of Namibia.

Namibian Correctional Service. (2021). *Vote 21: Namibian Correctional Service annual report*. Government of the Republic of Namibia.

Nature Conservation Ordinance 4 of 1975 (Namibia).

Office of the Ombudsman. (2016). *Report on the conditions in correctional facilities and police cells in Namibia*. Government of the Republic of Namibia.

Parliament of the Republic of Namibia. (2019). *Report on the motion on overcrowding in correctional facilities*. Government of the Republic of Namibia.

Public Health Act 36 of 1919 (Namibia).

United Nations Office on Drugs and Crime. (2015). *Handbook on prison capacity, overcrowding and alternatives to imprisonment*. United Nations.

Water Act 54 of 1956 (Namibia).

World Health Organization. (2014). *Prisons and health*. World Health Organization.