

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) REPORT

THIS ESIA REPORT IS PREPARED TO SUPPORT AN APPLICATION (APP. No: 06593)
FOR THE ENVIRONMENTAL CLEARANCE CERTIFICATE (ECC) FOR THE PROPOSED:

**TOWNSHIP ESTABLISHMENT OF EVULULUKO EXTENSION 3 ON ERF
5165 (A PORTION OF ERF 3122), OSHAKATI, OSHANA REGION, NAMIBIA**

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Prepared for:



Oshakati Town Council

Private Bag 5530

Oshakati

PROJECT OUTLINE AND TIMELINES

PROJECT SHORT TITLE: PROPOSED TOWNSHIP ESTABLISHMENT OF EVULULUKO EXTENSION 3 ON ERF 5165 (A PORTION OF ERF 3122), OSHAKATI, OSHANA REGION, NAMIBIA

Phase I:

- *Layout approval, township establishment and rezoning: 7 September 2025*
- *Release of BID to registered IAPs and stakeholders: 8 September 2025.*
- *Site visit and household Survey: 15-19 September 2025*
- *Notices in Local Newspapers:*
 - *New Era newspaper: 19 September 2025 and 26 September 2025.*
 - *Confidante newspaper: 19-26 September 2025 and 24-31 October 2025*

Phase II:

Stakeholder engagement plan:

- *Placement of notices at sites and at various public places: 6-8 October 2025*
- *Public Meeting: 9 October 2025*
- *Last day for comments on the BID: 24 October 2025*
- *Project registration on the EIA portal: 31 October 2025.*
- *Availability of ESIA and ESMP reports to IAPs for review: 3 November 2025.*

Phase III:

- *Last day for comments on ESIA and ESMP reports by IAPs: 13 November 2025*
- *Feedback from IAPs and finalization of ESIA and ESMP Reports: 14 November 2025*
- *Launch application with MEFT and upload all outstanding documents on the EIA portal: 17 November 2025.*

	September	October	November
<i>PHASE 1</i>			
<i>PHASE 2</i>			
<i>PHASE 3</i>			

1. NON-TECHNICAL SUMMARY

1.1. Background and introduction

In a directive through the **Ministry Urban and Rural Development**, the **Government Republic of Namibia** initiated formalization of the urban informal settlements:

- In a response to this initiative by the Honorable Minister of **Ministry Urban and Rural Development**, **Oshakati Town Council** is hereby establishing “**Evululuko Township Extension 3**”.

Instantly, this **ESIA report** is prepared to support an application for the ECC to establish **Evululuko Township**. The Proponent for this proposed development, which is Oshakati Town Council (OTC), is mandated to provide affordable, accessible, acceptable and attractive housing.

Formalisation of Evululuko informal settlement to establish **Evululuko Township Extension 3** forms part of the GRN's broader commitment to addressing Namibia's housing demand by formalizing informal settlements. Once established, Evululuko Township Extension 3 is set to develop **325 housing units** in order to meet the demand for residential development.

Additionally, the urbanization and economic development continue to drive demand for serviced land in Oshakati. Hence, **25 erven measuring a total of 1,6869 ha** will be zoned for business development purpose so that **informal businesses** could be **formalized** in the area.

Recognizing the importance of environmental responsibility, the OTC is committed to adhering to national environmental laws and policies. In line with the Environmental Management Act (No. 7 of 2007) and the associated Environmental Impact Assessment (EIA) Regulations (GN. 4878 of 06 February 2012), OTC has engaged consultants to oversee the **Environmental Impact Assessment (EIA)** process and facilitate the application for the necessary Environmental Clearance Certificate (ECC).

1.2. ESIA Process

In compliance with Namibia's environmental laws and regulations, the OTC is required to obtain an **Environmental Clearance Certificate (ECC)** before proceeding with the proposed establishment of the Evululuko Township. This ensures that both the environmental and social impacts of the project are assessed and managed effectively.

The **Environmental and Social Impact Assessment (ESIA)** process was undertaken by following key steps to evaluate the project's potential impacts:

- Project proposal submission – A Background Information Document (BID) was prepared to provide essential details about the project and was shared with Interested and Affected Parties (IAPs) and key stakeholders on 8 September 2025.
- Site visit and household Survey: 15-19 September 2025.
- Public meeting – the public meeting held on 9 October 2025 was well attended by more 48 people.

1.3. Environmental Context and Sensitivity

1.3.1 Climate and Physical Environment

Oshakati, situated in the heart of the Cuvelai Drainage System Namibia, experiences a semi-arid climate with notable seasonal variations:

- **Temperature:**

- **Summer (December–February):** Oshakati experiences high daytime temperatures, frequently exceeding 32°C, with high humidity due to seasonal rains. Night time temperatures remain warm, averaging 18–22°C.
- **Winter (June–August):** Days are generally mild, with average temperatures around 22–26°C, while nights can drop to 8–12°C. Frost is rare in the region.

- **Rainfall:**

- The region receives annual rainfall between 400–600 mm, mainly occurring from November to April.
- Rainfall is highly variable, but it often comes in intense thunderstorms, sometimes causing seasonal flooding (Efundja) due to the Cuvelai floodplain system.
- Oshakati experiences higher humidity levels during the rainy season.

- **Humidity & Wind:**

- Humidity levels peak in the rainy months (December–March) but drop during the dry season (May–October).
- Winds are generally moderate, but strong gusty winds occur before thunderstorms, often leading to dust storms in dry months.

Oshakati has a semi-arid climate with hot summers, mild winters, and a distinct rainy season. In some years, the towns receive more rain and seasonal flooding may impact local communities.

1.3.2 Vegetation and Flora Diversity

The vegetation in Oshakati consists primarily of species that have adapted to withstand dry conditions. However, certain plant species are under increasing pressure due to human activities and environmental changes. Notable flora include:

Makalani Palm (*Hyphaene petersiana*):

- A significant species in the Cuvelai-Etосha system, widely used for crafts and other local purposes, but at risk due to overharvesting.

Camelthorn (*Vachellia erioloba*):

- A key tree species that provides shade and shelter for wildlife, but its population is threatened by deforestation and changing climatic conditions.

The planned development area does not fall within any critical habitats for these species, meaning construction activities are unlikely to have a direct impact on sensitive flora.

1.3.3 Faunal Species and Wildlife

The wildlife in the general Oshana region is influenced by its semi-arid climate, seasonal flooding, and human activities. Key factors that affect fauna diversity include:

- *Climate variability:* Irregular rainfall and prolonged dry periods impact water availability and food sources for animals.
- *Habitat loss:* Unplanned expansion of the town could lead to the clearing of natural vegetation, reducing suitable habitats for certain species.
- *Agricultural expansion:* Large-scale crop farming and livestock grazing affect the movement of smaller mammals and birds.
- *Poaching and human-wildlife conflicts:* Although large game species are rare in Oshana, small mammals, reptiles, and birds face threats from hunting and habitat disturbance.

The proposed development area is within an already urbanized zone, meaning it does not provide a major habitat for large wildlife populations. While some smaller species, such as rodents, birds, and insects, may be present at the site, it is unlikely to have a significant negative impact on fauna diversity. However, measures should be in place to minimize disruption to any remaining vegetation that supports bird and insect populations.

1.4 Issues and concerns raised

The layout approval and township establishment process were carried in accordance with the Urban and regional Planning (Act No. 5 of 2018) and the Environmental Management Act (No. 7 of 2007). Both Acts necessitates for the public participation process.

The community meeting clarified several key issues regarding the township formalization:

- **Small-scale agriculture** will generally require Council approval and be confined to designated communal areas, while **erf sizes** will vary, including some smaller than 300 m² to improve service efficiency.
- The Council confirmed that the formalization of **Efundja Settlement** is planned but depends on budget availability.
- Concerns about **evictions** were addressed by stating the occupation status quo remains, and any required relocations will follow lawful Council procedures.
- Adjustments leading to **reduced plot sizes** will be managed with fairness measures like equivalent allocations, and **environmental preservation** is prioritized, meaning trees cannot be removed without permission.
- The **MTC tower** is being regularized on a dedicated erf for compliance, and the **timeline** for alignment is estimated at **6–12 months**. Finally, **alignment** involves pegging and boundary marking with assistance from the Council, and full municipal **services** (water, sewer, electricity) will be rolled out only after the formalization process is complete and budgeted for.

1.5 Conclusion and recommendations

*This proposed project by the Oshakati Town Council to establish **Evululuko Township Extension 3** is a response to the GRN's directive. This directive from the Ministry of Urban and Rural Development (MURD) is part of a major national effort aimed at improving living conditions and providing land tenure security for residents currently living in Evululuko informal settlement.*

*We understand and deeply respect the MEFT's mandate for environmental protection. However, the application for the **Evululuko Township Extension 3** ECC is not a mere infrastructure development; it is a **profound and immediate humanitarian crisis** affecting many residents in Oshakati Town. This project is a direct, tangible response to the GRN's national directive to formalize informal settlements—a core social justice mission of the MURD:*

- **The Humanitarian Imperative:** *Every day this ECC is delayed is a day prolonged for families living in undignified, insecure, and unsanitary conditions. These communities lack legal land tenure, making them vulnerable to displacement and leaving them without essential services like clean water, proper sanitation, and safe electricity connections.*
- **Security and Stability:** *Issuing this ECC is the crucial first step toward granting these residents **legal security of tenure**—transforming informal settlers into responsible, land-owning citizens. This single act will unlock dignity, enable permanent home construction, and foster social stability in Oshakati.*
- **Preventing Environmental and Health Hazards:** *Formalization allows the Oshakati Town Council to immediately plan for and install proper sewer systems and waste management, which is a significant and urgent **environmental health mitigation measure** in itself. The current state of informal living poses a direct threat to human health and local environments.*

We appeal to the MEFT to exercise its discretion in recognizing the exceptional social emergency and the immediate public good this formalization project represents. Granting the ECC swiftly will empower the Oshakati Town Council to accelerate its mission, transforming vulnerable, unserved areas into safe, planned, and sustainable communities.

DECLARATION OF AUTHORSHIP

APPLICATION NUMBER: 251031006593

Project Title: PROPOSED TOWNSHIP ESTABLISHMENT OF EVULULUKO EXTENSION 3 ON ERF 5165 (A PORTION OF ERF 3122), OSHAKATI, OSHANA REGION, NAMIBIA


I **TWALINOHAMBA AKAWA**, (full name of Environmental Assessment Practitioner - EAP) understand and agree that the information I have furnished in this submission will be reviewed by the Office of the Environmental Commissioner (OEC). I accept that the Environmental Commissioner, will hold me accountable in terms of Section 43(1)(b) of the Environmental Management Act, Act No. 7 of 2007 for any inaccurate or misleading information knowingly provided in the following documentation.

Tick the box (es) applicable to your submission:

- Pro Forma Environmental Contract for Mining claim(s) Environmental Questionnaire for Mining
- X Scoping report
- X Environmental Management Plan
- X Consent from Relevant Authority

I certify, and, acknowledge that the provision of such information will impede the lawful carrying out of the duties, responsibilities and functions of the Environmental Commissioner. I declare that the information submitted is my own work. All direct or indirect sources used are acknowledged as references.

Consultancy Name: **Envirodu Consulting & Training Solutions cc**


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TWALINOHAMBA AKAWA

Date: **November 2025**

NB- To be submitted jointly with Scoping Report, EIA, EMP documents to the Office of the Environmental Commissioner

Environmental Impact Assessment (EIA Report) Proposed Establishment of Evululuko Township



REPUBLIC OF NAMIBIA

Ministry of Environment, Forestry & Tourism

2025-11-03

Dear TWALINOHAMBA AKAWA,

This email serves to inform you that your application **APP-006593** has been verified

Taking the following into considerations:

- Location of the project
- Pollution potential
- Scale of operation of the project

Please upload the following documents:

- Scoping Report
- EMP
- Confirmation of screening notice received (through email) in terms of assessment procedures (Section 35 (1)(a)(b) of the Environmental Management Act, No 7 of 2007)
- Preliminary Site Map (Project boundaries) with coordinates (decimal degrees) and a Legend
- CV of Environmental Assessment Practitioner (EAP)

Environmental Impact Assessment (EIA Report) Proposed Establishment of Evululuko Township

- Declaration for the Submission of Assessment Reports and other Support Documents (upload Declaration Form from www.eia.meft.gov.na (downloads))
- List of all persons, organisations and organs of state that were registered in terms of regulation 22 as interested and affected parties in relation to the application
- Proof of Newspaper advertisement, once a week for two consecutive weeks in at least two newspapers circulated widely in Namibia
- Proof of written notice to the owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site
- Proof of written notice to the local authority council, regional council and traditional authority, in which the site or alternative site is situated; and consent obtained
- Proof of written notice to any other organ of state having jurisdiction in respect of any aspect of the activity;
- Copies of the minutes of any meetings held by the proponent with interested and affected parties and other role players which record the views of the participants
- Copies of any representations, objections and comments received in connection with the application or the scoping report

Please login onto our portal to upload required documents, if any <https://eia.met.gov.na>

NB- for the purpose of Section 38 of the Environmental Management Act, 2007 read with Regulation 4(d), kindly forward copies of all relevant documents i.e (application forms, EIA, Scoping reports, EMP etc) to the office of the Environmental Commissioner

Thank you

CHAPTER 1

1. INTRODUCTION

The **Government of the Republic of Namibia (GRN)**, through the **Ministry of Urban and Rural Development (MURD)**, established a long-running directive and policy to address and formalize **urban informal settlements**. This is a significant national priority.

- *In a response to this initiative by the Honorable Minister, Sankwasa James Sankwasa, Oshakati Town Council is hereby establishing “Evululuko Township Extension 3”.*

The **Evululuko Informal Settlement** within the boundary of **Oshakati Town Council (OTC)** is the oldest informal residential and its **formalization is now long overdue**.

Its strategic geographical location, in close proximity to the Oshakati town centre, presents significant potential for future development, encompassing multiple uses such as residential, commercial and institutional.

The primary objective of the formalization of the Evululuko Informal Settlement is to **transform an unplanned, informal settlement into a legally recognized, functioning residential area** by providing tenure security, proper planning, and access to essential municipal services.

This process necessitates the execution of several critical steps, foremost among which is the establishment of a formal township in accordance with relevant planning legislations. Formalization aims to facilitate the provision of essential services, security of tenure, and sustainable urban development within the area.

1.2. Regulatory Context and ESIA Requirement

The proposed establishment of a township is classified as a listed activity under the Environmental Management Act (No. 7 of 2007) (EMA). Specifically, the Environmental Impact Assessment

Environmental Impact Assessment (EIA Report) *Proposed Establishment of Evululuko Township* Regulations (2012) prohibits the commencement of a listed activity without a valid Environmental Clearance Certificate (ECC).

In fulfillment of this statutory requirement, the purpose of this Environmental and Social Impact Assessment (ESIA) Report is to systematically evaluate the potential environmental and social consequences of the proposed Evululuko township establishment.

This **ESIA Report** serves as the essential technical document supporting the subsequent application for the Environmental Clearance Certificate (ECC), thereby ensuring compliance with the provisions of the Environmental Management Act (No. 7 of 2007).

1.3. Project Motivation

The formalization of **Evululuko Informal Settlement** is an imperative undertaking, driven by compelling socio-economic, spatial development, and public health motivations. Its location, being the oldest and situated proximate to the Oshakati town centre, positions it uniquely for transformative urban renewal.

1.3.1. Socio-Economic Upliftment and Tenure Security

Security of Tenure: Formalization, culminating in the issuance of **Title Deeds** or a form of secured land right (such as those provided by the Flexible Land Tenure system), transforms residents from mere occupiers to legal property owners. This is the single most critical driver, enabling residents to:

- **Invest with Confidence:** Encourage incremental building and permanent structure upgrades, leading to an overall improvement in the housing quality and value.
- **Access Formal Credit:** Land titles can be used as collateral to access bank loans for business development, education, or further home improvements, thereby unlocking the area's economic potential.
- **Local Economic Development (LED):** The establishment of a formal township provides zoned areas for business and commerce. This facilitates:
 - **Formal Business Registration:** Allowing informal businesses currently operating to formalise, access licenses, pay taxes, and grow, integrating the local economy into the broader Oshakati economy.
- **Job Creation:** The construction and upgrading of infrastructure during and after formalization will generate employment opportunities for local residents.

Environmental Impact Assessment (EIA Report) *Proposed Establishment of Evululuko Township*
1.3.2. *Improved Public Health and Living Conditions*

- **Provision of Essential Services:** The transition to a formal township enables the orderly planning and installation of essential bulk and reticulation infrastructure, which is typically absent or inadequate in informal settings:
 - **Water and Sanitation:** Provision of individual metered water connections and proper sewerage systems (where technically feasible) will drastically reduce sanitation-related diseases and improve hygiene standards.
 - **Electricity:** Formal electricity connections will replace illegal or unsafe connections, reducing the risk of fire and providing reliable energy for lighting, heating, and business.
- **Orderly Spatial Planning:** The township establishment process incorporates proper cadastral surveying and town planning, resulting in:
 - **Defined Roads and Access:** Ensuring adequate access for emergency services (ambulances, fire trucks, police) and facilitating public transport and mobility.
 - **Provision of Public Amenities:** Dedication of land for community facilities such as schools, clinics, parks, and institutional uses, which are vital for a functional community.

1.3.3. *Enhanced Municipal Governance and Urban Management*

- **Efficient Service Delivery:** The formal demarcation of erven (plots) and streets allows the Oshakati Town Council to accurately map, register, and levy rates and taxes. This increases the municipal revenue base, making the community self-sustainable and allowing the Council to reinvest in services.
- **Compliance with National Policy:** The project directly aligns with national strategies aimed at reducing the national housing backlog and upgrading informal settlements across Namibia, contributing to the realization of Sustainable Development Goals (SDGs) related to sustainable cities and communities.
- **Reduced Environmental Risk:** The introduction of a formal waste management system, drainage infrastructure, and compliance with the Environmental Management Act (as necessitated by this ESIA) will mitigate existing environmental hazards (e.g., waste dumping, soil and water pollution) associated with unplanned settlements.

The formalisation of Evululuko is thus not merely an administrative exercise; it is a strategic intervention designed to integrate a historically marginalized community into the formal urban fabric of Oshakati, driving sustainable, inclusive growth and improving the quality of life for its residents.

CHAPTER 2

2. LEGISLATIVE FRAMEWORK AND INSTITUTIONAL ARRANGEMENTS

2.1. Constitution

The Namibian legislative framework operates under a **bicameral system** where laws are drafted, debated, and approved by recognized institutions.

This multi-layered governance system is founded on the:

- **Constitution of the Republic of Namibia (1990)**, which serves as the **Supreme Law** outlining fundamental rights and the structure of government.

2.2. Institutional arrangements

Acts of Parliament are passed through recognized institutions, namely:

- **Parliament** (National Assembly) and
- **National Council**.

2.3. Legislative framework

Namibia's legislative framework is comprised of a set of legislations (or Acts of Parliament) which are:

- **Acts of Parliament (Legislation)**, that are the formal, specific statutes (like the Environmental Management Act (Act No. 7 of 2007)) passed by the legislative bodies.

These laws are guided by high-level government **Policies**, which are strategic plans, while the **Regulations and By-laws** provide the detailed, technical rules for implementing the main Acts and are created by ministers or local authorities.

2.4. Preparation of this ESIA Report

*Therefore, the preparation of this ESIA Report is within Namibia's legislative framework and institutional arrangement and it aligns with the **Environmental Management Act (No. 7 of 2007)** and its associated regulations.*

Environmental Impact Assessment (EIA Report) *Proposed Establishment of Evululuko Township*

This report aims to present a thorough assessment of the potential environmental and social impacts of the proposed project, ensuring that all findings are transparent, evidence-based, and compliant with legal requirements and international best practices. By evaluating the project's impacts and proposing appropriate mitigation measures, this ESIA Report supports informed decision-making by the Office of the Environmental Commissioner (OEC) and relevant authorities, in accordance with the objectives of the Act.

2.4.1. Environmental Management Act (No.7 of 2007)

The Environmental Management Act (No. 7 of 2007) is legislation typically aimed at establishing a framework for the management of the environment and natural resources within in Namibia. While the details can vary according to nature of projects, the Act generally include provisions for the following:

- **Environmental Impact Assessments (EIAs):** Requirements for assessing potential environmental effects of proposed projects before they are approved.
- **Pollution Control:** Regulations aimed at preventing and controlling pollution of air, water, and land.
- **Biodiversity Conservation:** Measures to protect and conserve biological diversity, including the management of protected areas and endangered species.
- **Sustainable Resource Management:** Guidelines for the sustainable use of natural resources to ensure they are available for future generations.
- **Public Participation:** Provisions that encourage public engagement and input in environmental decision-making processes.
- **Enforcement and Compliance:** Mechanisms for reviewing compliance with environmental regulations and imposing penalties for violations.
- **Institutional Framework:** Establishing governmental bodies or agencies responsible for implementing and enforcing environmental policies

2.4.2. Environmental Impact Assessment Regulations of 2012

- **Duties of the Proponent:** According to regulation 3, it is the duty of the proponent to appoint independent Consultants who will guide in the EIA process. The regulations further require the proponent to provide information needed to complete the ESIA and also ensure that the ESIA procedures are followed.

Environmental Impact Assessment (EIA Report) Proposed Establishment of Evululuko Township

• **Appointed Consultants:** Appointed Consultants should (regulation 4) have sufficient knowledge and experience in conducting EIAs as well as knowledge of the Act and relevant activities involved in the proposed project.

• **Public Consultation Process:** According to regulation 21: “The person conducting a public consultation process must give notice to all potential interested and affected parties of the application which is subjected to public consultation by:

(a) fixing a notice board at a place conspicuous to the public at the boundary or on the fence of the site where the activity to which the application relates is or is to be undertaken;

(b) giving written notice to:

(i) the owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site;

(ii) the local authority council, regional council and traditional authority, as the case may be, in which the site or alternative site is situated;

(iii) any other organ of state having jurisdiction in respect of any aspect of the activity.

(c) advertising the application once a week for two consecutive weeks in at least two newspapers circulated widely in Namibia.

• **Registration of Affected and Interested Parties:** According to regulation 22, ECUTS must open and maintain a register which contains the names and addresses of:

(a) all persons who, as a consequence of the public consultation process conducted in respect of that application, have submitted written comments or attended meetings with the applicant;

(b) all persons who, after completion of the public consultation process referred to in paragraph (a), have requested the applicant responsible for the application, in writing, for their names to be placed on the register; and

(c) all organs of state which have jurisdiction in respect of the activity to which the application relates. An applicant responsible for an application must give access to the register to any person who submits a request for access to the register in writing.

2.4.3. Laws related to land acquisition

Apart from environmental laws, the laws below ensure that land acquisition is done fairly and transparently without discriminating women, children, elderly, peri-urban farmers, indigenous people and persons with disabilities:

Townships and Division of Land Ordinance, 1963 (Ordinance 11 of 1963)

- This ordinance lays down the basic framework for the establishment and regulation of townships in Namibia.
- It outlines the procedures for the acquisition and subdivision of land for township purposes.
- The ordinance provides the process for the proclamation of a township and specifies how the land can be subdivided into plots for residential, commercial, and industrial purposes.

Local Authorities Act, 1992 (Act No. 23 of 1992)

- This Act provides the legal framework for the establishment and functioning of local authorities in Namibia, including municipalities and towns.
- Local authorities are responsible for managing and allocating urban land within their jurisdiction, subject to the laws governing land use and ownership.
- The Act gives local authorities the power to acquire land, regulate land use, and manage development in urban areas.
- Local authorities can acquire land either through direct purchase or expropriation (in cases of public interest or for development purposes).

Land Reform Act, 1995 (Act No. 6 of 1995)

- Although primarily concerned with rural land, the Land Reform Act has implications for town land acquisition as it deals with land ownership, redistribution, and tenure in Namibia.
- The Act provides the legal framework for the transfer of land from private individuals or entities to the government in cases where land reform or redistribution is necessary.
- It establishes mechanisms for land compensation and ensures that the acquisition of land is carried out transparently and fairly.

Deeds Registries Act, 1937 (Act No. 47 of 1937)

- This Act governs the registration of land and property transactions in Namibia.

Environmental Impact Assessment (EIA Report) Proposed Establishment of Evululuko Township

- It is crucial for the transfer of land ownership, including urban land, as it sets out the procedures for the registration of title deeds.
- All land transactions, including the acquisition of town land, must be recorded in the Deeds Registry to ensure that ownership is legally recognized.

National Planning Commission Act, 1994 (Act No. 15 of 1994)

- The National Planning Commission (NPC) is responsible for national development planning, including the allocation and zoning of land for urban expansion.
- The Act empowers the NPC to coordinate and manage the spatial planning of Namibia, which includes the management of town land acquisition for development purposes.

Regional Councils Act, 1992 (Act No. 22 of 1992)

- This Act deals with the administration and functions of regional councils in Namibia. Regional councils also play a role in the allocation and management of land, including town land, in their respective regions.
- The Act gives regional councils the authority to deal with land planning and zoning in accordance with the broader national land policy.

Urban and Regional Planning Act, 2018 (Act No. 5 of 2018)

- This Act provides the legal basis for urban and regional planning in Namibia and is central to managing urban land acquisition and development.
- It aims to promote sustainable development, regulate land use, and ensure that land is acquired, planned, and developed in a manner that benefits the public.
- The Act gives municipalities and regional councils the authority to plan urban areas and manage land allocation for residential, commercial, and industrial development.

Expropriation Act, 1975 (Act No. 63 of 1975)

- This Act allows for the expropriation of land for public purposes by the government or local authorities.
- The law sets out the procedures for expropriating land, including the payment of fair compensation to the landowner. It applies when land is acquired for infrastructure, urban development, or other public projects.

State Land Act, 2000 (Act No. 13 of 2000)

Environmental Impact Assessment (EIA Report) Proposed Establishment of Evululuko Township

- This Act provides the legal framework for the management of state land in Namibia.
- It allows the government to allocate state land for various uses, including urban development and urban land acquisition.
- The Act also provides guidelines for the leasing of state land and regulates the terms under which individuals or entities may lease urban land.

Namibia Housing Action Plan (NHAP) and the National Housing Policy

- While not a law in itself, the Namibia Housing Action Plan and the National Housing Policy provide important guidelines and strategies for land acquisition related to housing development.
- These policies aim to address urban housing shortages, promote affordable housing, and ensure that land acquisition for housing development aligns with the country's broader goals for economic and social development.

The Public Private Partnership (PPP) Policy

- This policy encourages cooperation between the government and private sector entities to acquire and develop land for urban purposes, including town land.
- PPPs may be used in situations where private developers are involved in the construction of residential or commercial properties on land acquired by local authorities.

Urban Land Acquisition Laws: In Namibia, the acquisition of urban land is primarily regulated through laws that govern land tenure, urban development, and the roles of local authorities and regional councils. Key laws include the Townships and Division of Land Ordinance, the Local Authorities Act, and the Urban and Regional Planning Act, which guide land allocation, planning, and development.

CHAPTER 3

3. DESCRIPTION OF APPROACH AND METHODOLOGY

3.1. Technical Approach and Methodology

The ESIA process was undertaken in a phased approach; comprised of **3 phases**. ESIA activities involved applications of various communication/research tools and methodologies including:

- Site visit.
- Knowledge management (literature review of documents, reports, legislations and sources of information).
- Information communication tools (newspaper adverts, email communications, telephonic conversation, etc).
- Field data collection Apps (administration of questionnaires, interviews, Teamscope, Open Data Kit, KoboToolbox, etc).
- Field data collection tools (administration of questionnaires, interviews, etc).
- Stakeholder engagement including stakeholder consultation and analysis, public meetings, information sharing and feedback sessions.
- Leopold Matrix Assessment method.

The above tools were used in an interactive manner involving the Technical Team, Consultants, relevant authorities and stakeholders.

3.2. EIA Process and Procedures

The EIA process and procedures are guided by the Environmental Management Act (No. 7 of 2007) and EIA Regulations of 2012 as illustrated in **Figure 1**.

Environmental Impact Assessment (EIA Report) Proposed Establishment of Evululuko Township

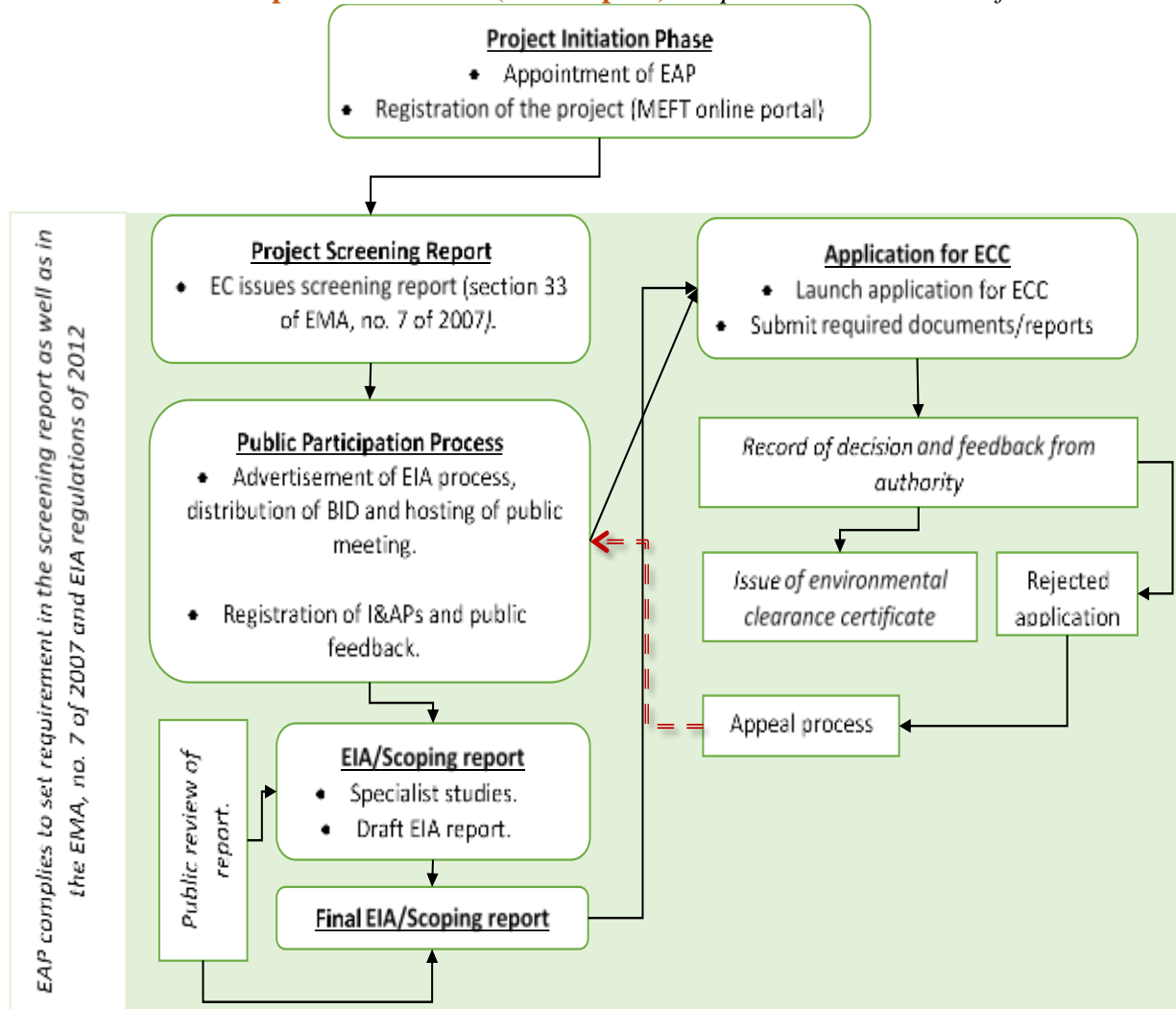


Figure 1: EIA Process and Procedures.

CHAPTER 4

4. THE RECEIVING ENVIRONMENT AND ENVIRONMENTAL SENSITIVITY

Introduction

The proposed construction of houses will take place within an urban setting that is already developed. Oshakati is situated in the Oshana Region of northern Namibia, serving as the regional capital and a significant commercial hub in the north.

The town is part of the Cuvelai-Etosha Basin, a unique ecological zone characterized by seasonally flooded *Oshanas*, which plays a crucial role in the region's hydrology and agriculture.

4.1. Physical and Environmental Conditions

4.1.1. Temperature

The Oshana Region experiences a semi-arid climate characterized by hot summers and mild winters. During the summer months, temperatures often exceed 35°C, with October being the hottest month. Winter occurs from May to August, with July being the coolest month, and average daytime temperatures ranging between 20°C to 25°C, dropping to around 10°C at night.

4.1.2. Wind

Moderate winds are present throughout the year, typically intensifying in the late afternoons. These winds occasionally result in dust storms, especially during the dry season, contributing to soil erosion and affecting visibility.

4.1.3. Geohydrology

Oshakati lies within the Cuvelai-Etosa Basin, characterized by its highly variable rainfall patterns and distinct wet and dry seasons. Rainfall occurs between November and April, peaking in January and February, with an annual average of 400-500 mm. However, extreme variations have been observed, with some years receiving over 1,000 mm of rainfall and others as little as 169 mm. The region's high evaporation rates often surpass rainfall levels, leading to water scarcity during dry periods. Floodplains, locally known as oshanas, recharge groundwater essential for boreholes and wells, though localized flooding during the rainy season poses challenges.

4.3. Flora Diversity

4.3.1. Trees

The region's vegetation primarily consists of drought-resistant species. Notable trees include Mopane (*Colophospermum mopane*), Camelthorn (*Vachellia erioloba*), Makalani palm (*Hyphaene petersiana*), and Marula (*Sclerocarya birrea*). These species hold cultural and economic significance, providing resources like food, shade, and materials for traditional crafts. They are protected under the Forest Act No. 12 of 2001 and the Nature Conservation Ordinance No. 4 of 1975, with a conservation status of Least Concern (LC) according to IUCN (2022).

4.3.2. Bushes and shrubs

Common shrubs include *Acacia mellifera* and *Grewia flava*, which are vital for local grazing and firewood.

4.3.3. Grass

Species such as *Dactyloctenium aegyptium* and *Setaria verticillata* thrive in the oshanas during the rainy season. These grasses support grazing, local crafts, and overall ecosystem health.

4.4. Fauna Diversity

4.4.1. Small mammals

Scrub hare (*Lepus saxatilis*) and common dwarf mongoose (*Helogale parvula*) are common near-endemic species protected under the Nature Conservation Ordinance.

4.4.2. Large mammals

Livestock like cattle, goats, and donkeys are economically significant, though not considered part of the region's conservation priorities.

4.4.3. Avifauna

Birds such as the grey-headed kingfisher (*Halcyon leucocephala*), little egret (*Egretta garzetta*), and squacco heron (*Ardeola ralloides*) inhabit the wetlands. Migratory birds further enhance biodiversity during the rainy season.

4.4.4. Fish

Seasonal wetlands support fish species that temporarily increase aquatic biodiversity, contributing to local livelihoods.

4.4.5. Insects

Pollinators like bees and various beetles play a critical role in maintaining plant diversity and supporting agriculture.

4.4.6. Reptiles & Amphibians

The region hosts reptiles like the puff adder (*Bitis arietans*) and the Kalahari tree skink (*Trachylepis spilogaster*), alongside amphibians such as the African bullfrog, particularly active during the rainy season.

While urban land development plays a role in habitat loss, other contributors such as agricultural expansion and commercial farming also exert pressure on local ecosystems. Additionally, climate change has a significant impact on fauna diversity and it is not directly driven by urban development.

At the proposed construction site, there are no known populations of wild animals, as the area has already been developed. As a result, the planned construction activities are not expected to have a detrimental effect on the region's fauna diversity.

CHAPTER 5

5. SOCIOECONOMICS AND GOVERNANCE SYSTEM

Introduction

Oshakati is a major economic and administrative center in the Oshana Region. Positioned strategically along the B1 highway, it serves as a key link between northern Namibia and neighboring Angola. Over the past decade, Oshakati has experienced notable population growth, rising from 36,541 in 2011 to an estimated 47,000 in 2023 (NSA, 2023). Factors contributing to this growth include urban migration, job opportunities, and the presence of higher learning institutions like UNAM (University of Namibia). As the population expands, there is increased demand for housing, which places additional pressure on essential services such as water supply, waste management, and electricity distribution.

5.1. Socio-economic setting

5.1.1. Population size and growth

According to the 2023 Population and Housing Census, the Oshana Region has a population of approximately 202,694 people. This population experiences minor fluctuations due to migration, seasonal labor, and natural population changes. The 2011 census recorded a population of 176,674 people, indicating steady growth. Despite its status as a regional economic center, parts of the Oshana Region remain underdeveloped, with a significant portion of the population residing in informal settlements.

Table 1: Population distribution in the Oshana Region.

Constituency	Population
Okaku	21,892
Okatana	19,974
Okatyali	4,502

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Ompundja	4,582
Ondangwa Rural	14,959
Ondangwa Urban	31,466
Ongwediva	44.166
Oshakati East	39,915
Oshakati West	30,665
Uukwiyu	13,033
Uuvudhiya	5,647

5.1.2. *Heritage sites*

The Oshana region and its surrounding regions are rich in cultural and liberation-era heritage sites, primarily focused on the history and traditions of the Ovambo people and the Namibian War of Independence:

1988 Bomb Blast Monument

• **Location:** Within Oshakati.

• **Significance:** The town itself has a few sites related to its history as a military base, including the **1988 Bomb Blast Monument**, which commemorates a significant event during the war of independence.

Other Notable Cultural Features min Oshakati

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- **The Oshakati Open-Air Market:** While not a "monument," it is the town's most vibrant cultural hub, offering an authentic experience of local food, crafts, and the Ovambo culture.

Nakambale Museum and Church

- **Location:** Olukonda, near Ondangwa (very close to Oshakati).
- **Significance:** This is a major cultural heritage site centered on one of the oldest Finnish mission stations in Namibia. It offers a rich insight into the **Ovambo culture and traditions**, showcasing the traditional homesteads and historical artifacts. The adjacent Nakambale Church is noted for its beautiful Finnish mission architecture.

Omugulugwombashe National Monument

- **Location:** Omusati Region (west of Oshakati).
- **Significance:** This site is a crucial national monument in Namibia's history. It is where the **Namibian War of Liberation and Independence officially started** on August 26, 1966, when the South African Police launched an assault on the SWAPO base.

Eenhana Shrine

- **Location:** Eenhana, Ohangwena Region (northeast of Oshakati).
- **Significance:** The site was a strategic military base for the South African Defense Force (SADF) during the apartheid era. It is now a place of **spiritual and cultural commemoration**, where human remains, potentially belonging to SWAPO members who were tortured, were found.
- **Onelungo Ponds:** These ponds are recognized as an archaeological and cultural monument important to the traditions of the Mbalantu people, supporting indigenous life and seasonal fishing rituals.

All sites highlighted above are far from the Evululuko informal settlement and will not be affected by the proposed establishment of Evululuko Township.

5.1.3. *Cultural Diversity*

Oshakati is predominantly inhabited by the Oshiwambo people. Traditional practices remain integral to daily life, and cultural ceremonies are still widely observed. The town also attracts people from other

Environmental Impact Assessment (EIA Report) *Proposed Establishment of Evululuko Township* regions and countries, contributing to its cultural diversity. The local economy is supported by retail trade, construction, and informal businesses, with a growing influence from the Angolan market.

5.1.4. *Data Gaps and Uncertainties*

While demographic and socio-economic data for Oshakati are available, there are notable data gaps in comprehensive studies on groundwater availability, climate resilience, and the long-term impacts of urban expansion. Additionally, detailed assessments of informal settlement growth and infrastructure demands are limited, making long-term urban planning challenging.

5.1.5. *Anticipated Changes and Development Activities*

Oshakati is undergoing significant urbanization, with ongoing housing developments, road upgrades, and plans for commercial centers. These projects aim to address the region's housing shortages, improve infrastructure, and stimulate economic growth. However, rapid urbanization may lead to increased demand for resources, traffic congestion, and pressure on public services, emphasizing the need for coordinated urban planning.

5.2. **Governance**

Governance in the Oshana Region aligns with Namibia's decentralized political framework, involving national and regional, local form of governance. These governance structures facilitate local decision-making and aim to improve service delivery.

5.2.1. *Regional Government Structure*

The Oshana Region is one of Namibia's 14 administrative regions, governed by the Oshana Regional Council. The Council oversees implementing national policies and coordinating regional development, consisting of elected Councilors from the region's constituencies. The Governor, appointed by the President, plays a central role in overseeing regional development projects and service delivery.

5.2.2. *Local Government and Town Councils*

Oshakati has an elected town council responsible for urban planning, infrastructure development, and service delivery, including water, sanitation, and electricity.

5.2.4. *Democracy and Local Participation*

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The Oshana Region is divided into 11 constituencies, each electing a representative (Councilor) to the Regional Council. These Councilors represent their communities' interests, enhancing public participation in governance. The governance framework follows the Local Authorities Act (No. 23 of 1992) and the Regional Councils Act (No. 22 of 1992).

The Oshana Region is divided into eleven constituencies as follows:

- Okaku
- Okatana
- Okatyali
- Ompundja
- Ondangwa Rural
- Ondangwa Urban
- Ongwediva
- Oshakati East
- Oshakati West
- Uukwiyu
- Uuvudhiya

5.2.5. Public Services and Infrastructure

The Regional Council collaborates with Oshakati Town Council (OTC) to provide healthcare, education, and infrastructure. While formal settlements Oshakati has better access to these services, informal settlements face challenges related to infrastructure, healthcare accessibility, and clean water. The central government supports large-scale projects, while OTC handles implementation.

5.2.6. Collaboration with National Government

The Oshana Region aligns its development efforts with national policies set by the Ministry of Urban and Rural Development (MURD), focusing on poverty reduction, health, education, and sustainable development.

5.2.7. Governance Challenges

The Oshana Region faces governance challenges, including unemployment, limited infrastructure development in informal settlements, and informal settlement growth. Climate change impacts, such as drought, affect agricultural productivity and water availability, further complicating governance.

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Collaborative efforts among regional authorities, local councils, and traditional leaders are essential to address these issues and enhance sustainable development.

CHAPTER 6

6. PROJECT ACTIVITIES AND DESCRIPTION

Introduction

Evululuko township establishment was a multi-phased process that entails a wide range of **activities** including: planning, legal compliance, stakeholder engagement, land preparation, installation of basic services and construction. These activities could be divided into 4 phases:

- a) **Planning, assessment and stakeholder engagement**
- b) **Legal and tenure formalization**
- c) **Infrastructure and physical upgrading**
- d) **Socio-economic and institutional development**

Furthermore, **activities** involved during some phases were beyond the scope of this assessment and therefore this ESIA Report will make reference to such **future activities** even if they were not completed yet when this report was completed.

6.1. Planning, assessment and stakeholder engagement

This initial phase establishes the needs, constraints and priorities based on robust data and stakeholder input.

- **Profiling and baseline data collection:** The OTC conducted detailed surveys to gather information on every household, including demographics, employment status, income, skills and physical conditions of structures and land.
- **Environmental impact assessment:** This was done to determine, evaluate and mitigate negative impacts that may arise from activities involved in establishing a this township.
- **Site suitability assessment:** OTC and Nghivelwa Planning Consultants performed technical and environmental evaluations (geotechnical surveys, flood risk analysis, topographical mapping) to determine if land was safe and suitable for permanent settlement.

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- **Participatory planning:** A stakeholder engagement process was completed by Nghivelwa Planning Consultants cc and it entailed extensive consultation sessions and a public meeting with community members, municipal officials and local leaders to define shared vision and identify priority needs.
- **Developing a phased development plan:** The OTC will create a long-term strategy that outlines incremental steps for investment, services delivery and legal formalization over several years, aligning with available funding.

6.2. Legal and tenure formalization

This proposed town establishment required converting Evululuko informal occupancy rights into formal, secure tenure, which will be crucial for residents to invest in their homes and access finance.

- **Statutory town planning:** Nghivelwa Planning Consultants cc executed the formal town planning process including rezoning, land subdivision, establishing street names and setting plot boundaries.
- **Security of tenure:** granting official land rights.
- **Legal recognition of residents:** Currently residents are not legally recognized and this formalization process will ensure the dwellers are legally recognized. This recognition is the basis for accessing municipal services and home-financing.
- **Re-blocking:** Where applicable, informal structures or shacks will be relocated in consultation with the owners. This will create space for essential infrastructure and services.

6.3. Infrastructure and physical upgrading

This will involve physical construction and installation of essential urban services.

- **Bulk services:** install structures that connect Evululuko settlement to OTC network (water reservoir, main sewer lines, sub-stations).
- **Reticulation network:** laying down the localized network, including:
 - Water and sanitation: install piped water to individual taps and establish sewer lines.
 - Electricity: Installing official electricity connections and lighting to replace illegal connections.
 - Roads and storm-water: construction of accessible roads (often starting with gravel access) and effective storm-water drainage system to prevent flooding and improve mobility and easy traffic congestion.
- **Housing consolidation:** Providing technical support and access to financing (e.g. microloans, subsidies) to help residents to improve their properties.

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- **Public facilities provision:** Identifying and reserving land for and eventually constructing, essential social amenities such as schools, clinics, community halls and public open/recreational spaces.

6.4. Socio-economic and institutional development

Upgrading of Evululuko informal settlement and establishment of Evululuko township is fundamentally about poverty alleviation. Therefore, the OTC will mainly focus on social integration, requiring targeted programs to enhance livelihoods.

- **Economic integration and job creation:** Developing local economic opportunities and micro-enterprises.
- **Capacity building and education:** Implement programs focused on health, financial literacy and environmental sustainability.
- **Institutional support:** Establishing and supporting community-based organizations.

CHAPTER 7

7. STAKEHOLDER ENGAGEMENT

6.1. Layout approval, township establishment and rezoning

Nghivelwa Planning Consultants cc submitted an application for layout, township establishment of Evululuko extension 3 and Rezoning of erf 5165 on 7 September 2025 (**see appendix F**).

6.2. Release of Background Information Document

The background information document was released on 8 September 2025 as part of the public participation process.

6.3. Site visit and Household Survey

A notice was released to notify the public about the formalization of the informal areas in Evululuko and that Nghivelwa Planning Consultants cc was appointed to facilitate the process.

A Site visit was combined with a household survey during period from 6-8 September 2025.

6.4. Notices in local newspapers

Notices about the proposed township establishment were published in two local newspapers, the New Era and Confidente as follows (**see appendix D**):

- *New Era newspaper: 19 September 2025 and 26 September 2025.*
- *Confidente newspaper: 19-26 September 2025 and 24-31 October 2025*

6.5. Placement of notices at sites and at various public places

6.6. Public meeting

A public meeting was held on 9 October 2025 in Oshakati (**see appendix D**).



Figure: Public meeting at Evululuko.

6.3. Stakeholder Engagement

The type of stakeholder engagement conducted was through a public meeting. A household survey was also undertaken.

6.3. Issues and Concerns

Below are the key issues and concerns raised by residents during the public meeting and the corresponding clarifications provided by the OTC. Issues and concerns raised were categorised into 3 broad categories and for each categories, consultants designed an Issue and Response Reports (IRRs) as presented below.

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Issue and Response Report: Land Use & Plot Management

Topic	Resident Question	Council Response
Agricultural Activities	Will small-scale agriculture be allowed within the formalised township?	Only with Council approval , typically limited to designated public open spaces or communal gardens. Backyard gardens are encouraged.
Erf Sizes	What will be the expected sizes of plots (erven)?	Sizes will vary , with some plots below 300 m² to support densification and service efficiency, adhering to Council standards.
Reduced Plot Sizes	What happens if alignment causes plot sizes to shrink?	Adjustments may occur to meet standards or servitudes. Council will apply fairness measures , such as equivalent allocations where feasible or prioritization in allocation processes.
Trees/Natural Features	Can trees crossing new boundaries after alignment be cut down?	Environmental preservation is encouraged. Removal requires due process and permission ; it is not allowed without mitigation.

Issue and Response Report: Process, Timeline & Evictions

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Topic	Resident Question	Council Response
Formalisation of Efundja	When will the Efundja Settlement be addressed by Council?	It is included in the Council's Strategic Plan . Timing depends on budget availability , sequencing, and progress on current projects.
Evictions	Concerns about landlords removing occupants during formalisation.	The status quo on occupation remains . Evictions are not permitted outside lawful processes. Relocations required for alignment will be formally communicated by Council.
Timeline to Completion	How long will the entire formalisation process take?	The indicative timeline from layout approval to alignment is approximately 6–12 months , subject to necessary approvals, surveying, and budget cycles.
What Alignment Involves	Clarification on what "alignment" means at the household level.	Alignment involves pegging and boundary marking , with guided structure shifts within the same stand where possible. Notices and assistance will be provided by Council.

⚡ Issue and Response Report: Infrastructure and Servitudes

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Topic	Resident Question	Council Response
Service Rollout	When will water, sewer, and electricity services be installed?	Services will be delivered after the formalisation process is completed and is budgeted for by Council.
MTC Tower	Why is the existing MTC tower shown on its own plot (erf)?	Utilities and towers are regularized on dedicated erven or servitudes to ensure safety, maintenance access, and compliance.
NamWater Pipeline	The existence of a NamWater pipeline traversing certain plots.	This has been noted and will be addressed . A NamWater servitude will need to be registered over the affected area.

CHAPTER 7

7. ENVIRONMENTAL AND SOCIAL IMPACTS DESCRIPTION

There were 4 key phases involved in the **establishment of Evululuko township** as follows:

- a) **Planning, assessment and stakeholder engagement**
- b) **Legal and tenure formalization**
- c) **Infrastructure and physical upgrading**
- d) **Socio-economic and institutional development**

The phase that will have the **highest environmental impact** during the formalization process is the **Infrastructure and Physical Upgrading**. These impacts will mainly be on the **physical environment**.

7.1. Environmental and Social Impact Description: *Physical environmental impacts*

This phase involves concrete, on-the-ground construction activities that directly alter the natural environment and generate significant waste and resource demands. The primary negative environmental impacts stem from:

- **Habitat Loss and Land Alteration:** The construction of new roads, utility trenches (for water, sewer, and electricity), and the creation of formalized plots require extensive **earthworks**, including clearing vegetation and moving large amounts of soil. This permanently changes the topography, can lead to **soil erosion**, and results in the **loss of local biodiversity**.
- **Pollution from Construction:**
 - **Air Pollution:** Generated by construction vehicles, heavy machinery, and **dust** from earth-moving and grading activities.
 - **Water Pollution:** Sediment-laden runoff from construction sites can contaminate local streams or drainage systems. Chemicals and fuels from equipment also pose a risk to surface and groundwater.

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- **Resource and Waste Generation:** This phase demands significant raw materials (cement, aggregates, steel, piping) and energy. It also generates a large volume of **construction and demolition waste (C&D waste)**, which must be managed properly to avoid environmental contamination.

7.2. Environmental and Social Impact Description: *Social environmental impacts*

Displacement of Residents

- **Gentrification:** Physical upgrading can lead to the gentrification of an area, where rising property values push out low-income or long-standing residents who can no longer afford to live there. While this can result in cleaner, safer, and more desirable neighborhoods, it can also result in the loss of affordable housing and the uprooting of communities.
- **Forced Evictions:** In some cases, physical upgrades may require the demolition of existing homes or businesses, leading to forced evictions. This can cause emotional and financial distress for families who have lived in these communities for generations.

Loss of Social Networks

- **Community Bonds:** Many communities that are being physically upgraded have long-standing social ties. People may rely on neighbors for emotional support, childcare, or employment. When these communities are displaced, those social networks can break down, leading to feelings of isolation and alienation for individuals.
- **Cultural Identity:** In some areas, physical upgrading can result in the loss of cultural heritage. For example, neighborhoods with unique cultural identities may lose the spaces (homes, shops, parks) that are central to their sense of belonging. This can erode the community's cultural cohesion and history.

Long-Term Social Impacts

- **Psychological Impact:** The trauma of displacement, loss of home, and disruption of social ties can have long-lasting psychological effects. People who are displaced may experience stress, anxiety, and a sense of loss. Children, in particular, can suffer from changes in school environments, loss of friendships, and instability.
- **Fragmentation of Communities:** The breaking apart of established neighborhoods can result in a lack of social cohesion in the long term. People might be scattered to different parts of the city or even beyond, making it harder for them to re-establish close-knit community ties.

Environmental Impacts

- **Environmental Justice Issues:** Often, marginalized communities are the ones that bear the brunt of upgrading initiatives. They may be located in areas that are targeted for redevelopment, but lack the resources to resist or fight against it. Additionally, if upgrading projects do not consider the environmental vulnerabilities of a displaced community (e.g., new areas being more prone to flooding or pollution), these efforts can inadvertently lead to greater environmental inequality.
- **Sustainability and Green Spaces:** In some cases, physical upgrades may introduce environmental improvements, such as green spaces, improved air quality, and enhanced infrastructure. However, if the process causes displacement, it can negate the benefits, as the displaced individuals may end up in areas with worse environmental conditions.

Positive Long-Term Effects (if managed well)

- **Community Rebuilding:** If the displaced residents are able to return to upgraded areas or are offered housing in nearby neighborhoods with sufficient support systems, physical upgrading can eventually lead to more cohesive and vibrant communities.
- **Access to Better Resources:** Sometimes, displacement can result in better access to employment opportunities, education, and healthcare if the upgraded area is better connected to the city or has improved amenities.

CHAPTER 8

8. ENVIRONMENTAL IMPACT EVALUATION

8.1. Introduction

Physical upgrading (e.g., infrastructure improvement, housing redevelopment, road and drainage construction) has both **immediate (I)** and **long-term social (L)** and environmental impacts.

This evaluation assesses those impacts — both **positive and negative** — and provides insights into the overall sustainability of the establishment of Evululuko township in Oshakati town.

8.2. Objectives of the Evaluation

- To evaluate the **environmental impacts** (e.g., air quality, waste management, ecosystem effects).

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- To identify and assess the **social impacts** (e.g., displacement, social cohesion, community well-being).
- To determine whether mitigation measures are effective.
- To recommend strategies for sustainable upgrading and community resilience.

8.3. Methodology

Method	Description	Purpose
Baseline & Follow-up Surveys	Surveys conducted before and after upgrading	Compare pre- and post-project living conditions
Focus Group Discussions (FGDs)	Small-group discussions with residents	Capture social perceptions and emotional impacts
Key Informant Interviews (KIIs)	Interviews with local leaders, NGOs, and officials	Gather policy and management perspectives
Environmental Monitoring	Air, water, waste, and green space measurements	Assess physical environmental changes
Observation & Participatory Mapping	Community-led field observation	Identify changes in social and physical space

8.4. Findings and Evaluation

8.4.1. Environmental Impacts

Aspect	Positive Impacts	Negative Impacts	Evaluation Summary
Air Quality	Reduced open burning; improved traffic flow	Dust and emissions during construction	Short-term negative; long-term improvement.
Water Resources	Improved drainage and reduced flooding	Risk of contamination during construction	Positive if proper drainage is maintained.
Solid Waste Management	New collection systems, bins, and awareness	Poor waste segregation habits persist	Positive, but behavior change programs needed.

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Aspect	Positive Impacts	Negative Impacts	Evaluation Summary
Green and Open Spaces	Creation of parks and trees improves air and recreation	Limited maintenance of green spaces	Positive impact if sustained by community management.
Noise Pollution	—	Increased noise during construction	Temporary, but manageable with mitigation measures.
Climate Resilience	Better drainage, green roofs, solar lighting	Some materials not sustainable	Moderately positive; further green innovations encouraged.

8.4.2. Social Impacts

Aspect	Positive Impacts	Negative Impacts	Evaluation Summary
Housing and Living Conditions	Improved housing quality; better sanitation and safety	Temporary relocation stress; increased living costs	Overall positive, though affordability remains a challenge.
Displacement and Relocation	Some households gained access to improved housing	Loss of homes, temporary shelters far from jobs/schools	Negative for displaced families; need stronger right-to-return policy.
Social Networks and Community Cohesion	Improved public spaces promote social interaction	Disruption of traditional networks; weakened social ties	Mixed: physical spaces improved but social bonds weakened.
Health and Well-being	Better drainage and waste management reduced disease	Dust and noise during construction; stress from relocation	Moderate improvement in long-term health outcomes.
Livelihoods	New economic opportunities (markets, shops)	Loss of informal businesses during construction	Positive if supported by business assistance programs.

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Aspect	Positive Impacts	Negative Impacts	Evaluation Summary
Safety and Security	Better street lighting and roads reduced crime	Short-term insecurity during relocation	Largely positive after completion.

8.4.3. Summary of Overall Impacts

Impact Category	Net Impact	Duration	Significance
Social Cohesion & Community Networks	⚠ Mixed	Long-term	High
Housing & Infrastructure Quality	☑ Positive	Long-term	Very High
Environmental Quality (Air, Water, Waste)	☑ Positive	Long-term	High
Displacement & Livelihood Disruption	✗ Negative	Short- to Medium-term	High
Health & Well-being	☑ Positive	Long-term	Moderate
Cultural Identity & Heritage	⚠ Mixed	Long-term	Moderate

8.4.4. Effectiveness of Mitigation Measures

Mitigation Measure	Evaluation of Effectiveness	Comments
Community participation in planning	Effective	Helped reduce resistance and increased local ownership
Relocation assistance & compensation	Partially effective	Some households still faced affordability issues
Affordable housing provision	Limited	Not all displaced residents qualified
Green infrastructure inclusion	Effective	Improved environment and aesthetics

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Mitigation Measure	Evaluation of Effectiveness	Comments
Livelihood restoration programs	Moderate	More long-term support needed for small businesses
Noise and dust control during construction	Partially effective	Enforcement inconsistent

8.4.5. Conclusions

- The **physical upgrading project** significantly improved **infrastructure quality, public health, and environmental sustainability**.
- However, **social challenges** remain, particularly related to **displacement, loss of community cohesion, and economic adjustment**.
- Long-term benefits outweigh short-term negatives, **provided** that mitigation measures continue post-upgrading.
- The project demonstrates that **inclusive, environmentally conscious urban upgrading** can enhance both quality of life and environmental resilience when community engagement is prioritized.

8.4.6. Recommendations

Strengthen Social Safeguards

- Guarantee the *right to return* for displaced residents.
- Implement social integration programs to rebuild community networks.

Improve Environmental Management

- Establish local committees to maintain drainage, green spaces, and waste systems.
- Encourage green technologies (solar, rainwater harvesting).

Support Livelihood Recovery

- Provide microfinance, business training, and job placement for displaced workers.

Enhance Monitoring and Evaluation

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- Regularly track social and environmental indicators.
- Conduct participatory reviews with local residents every 6–12 months.

Promote Long-Term Community Ownership

- Encourage resident associations to take part in managing upgraded facilities.

Overall	Impact	Rating:
Social: Moderate to High	(Positive, with some negative displacement effects)	
Environmental: High	(Positive, sustainable improvements).	

Table 1: Sensitivity.

Impacts	SENSITIVITY RATING					Air	Land	Noise	Flora and fauna	Labor working conditions	Development induced displacement and resettlement	Community health and safety	Cultural heritage	Resource efficiency, pollution prevention and management	Governance
	1	Negligible													
	2	Low													
	3	Medium													
	4	High													
	5	Very high													
1. Increase in inequality															
2. Sustainable cities, communities, human settlement development and planning															
3. Climate change mitigation and adaptation and urban economies															
4. Water use and demand															
5. Waste generation and management															
6. Energy consumption and demand															
7. Transport system and traffic congestion															
8. Air quality and emission of GHGs															

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Table 2: magnitude.

Impacts		Air	Land	Noise	Flora and fauna	Labor working conditions	Development induced displacement and resettlement	Community health and safety	Cultural heritage	Resource efficiency, pollution prevention and management	Governance
0	No observable impact										
1	Low impact										
2	Tolerable impact										
3	Medium high impact										
4	High impact										
5	Very high impact										
1.	Increase in inequality	1	3	3	2	1	3	1	1	1	1
2.	Sustainable cities, communities, human settlement development and planning	3	3	3	3	1	2	1	1	1	1
3.	Climate change mitigation and adaptation and urban economies	2	2	2	2	1	2	1	1	1	1
4.	Water use and demand	1	1	1	1	1	1	1	3	1	1

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5. Waste generation and management	1	1	1	1	1	1	1	1	1	1	3
6. Energy consumption and demand	1	1	1	1	1	1	1	1	1	1	1
7. Transport system and traffic congestion	1	1	1	1	1	1	1	1	1	1	1
8. Air quality and emission of GHGs											

Table 3: duration.

Impacts	Air	Land	Noise	Flora and fauna	Labor working conditions	Development induced displacement and resettlement	Community health and safety	Cultural heritage	Resource efficiency, pollution prevention and management	Governance
1. Increase in inequality	1	1	1	1	1	1	1	1	1	1

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2. Sustainable cities, communities, human settlement development and planning	1	1	1	1	1	1	1	1	1	1
3. Climate change mitigation and adaptation and urban economies	1	1	1	1	1	1	1	1	1	1
4. Water use and demand	1	1	1	1	1	1	1	1	1	1
5. Waste generation and management	1	1	1	1	1	1	1	1	1	1
6. Energy consumption and demand	1	1	1	1	1	1	1	1	1	1
7. Transport system and traffic congestion	1	1	1	1	1	1	1	1	1	1
8. Air quality and emission of GHGs	1	1	1	1	1	1	1	1	1	1

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Table 4: coverage.

Impacts		Air	Land	Noise	Flora and fauna	Labor working conditions	Development induced displacement and resettlement	Community health and safety	Cultural heritage	Resource efficiency, pollution prevention and management	Governance
L	Localized impacts or limited to location										
O	Impact of importance to municipality										
R	Regional impacts										
N	National impact										
I	International										
Increase in inequality		1	1	1	1	1	1	1	1	1	1
Sustainable cities, communities, human settlement development and planning		1	1	1	1	1	1	1	1	1	1
Climate change mitigation and adaptation and urban economies		1	1	1	1	1	1	1	1	1	1
Water use and demand		1	1	1	1	1	1	1	1	1	1
Waste generation and management		1	1	1	1	1	1	1	1	1	1
Energy consumption and demand		1	1	1	1	1	1	1	1	1	1
Transport system and traffic congestion											
Air quality and emission of GHGs		1	1	1	1	1	1	1	1	1	1

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Table 5: probability.

Impacts											
LP	Low probability (possibility of impact occurring is low, below 25%).										
P	Probable (there is a distinct possibility that it will occur, approximately 50%).										
HP	Highly probable (the impact is most likely to occur, 75%).										
D	Definite (the impact will occur, 100%).										
		Air	Land	Noise	Flora and fauna	Labor working conditions	Development induced resettlement	Community health and safety	Cultural heritage	Resource efficiency, pollution prevention and management	Governance
Increase in inequality		1	1	1	1	1	1	1	1	1	
Sustainable cities, communities, human settlement development and planning		1	1	1	1	1	1	1	1	1	
Climate change mitigation and adaptation and urban economies		1	1	1	1	1	1	1	1	1	
Water use and demand		1	1	1	1	1	1	1	1	1	
Waste generation and management		1	1	1	1	1	1	1	1	1	
Energy consumption and demand		1	1	1	1	1	1	1	1	1	

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Transport system and traffic congestion										
Air quality and emission of GHGs	1	1	1	1	1	1	1	1	1	1

Table 6: significance.

Impacts	Air	Land	Noise	Flora and fauna	Labor working conditions	Development induced displacement and resettlement	Community health and safety	Cultural heritage	Resource efficiency, pollution prevention and management	Governance
Increase in inequality	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Sustainable cities, communities, human settlement development and planning	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Climate change mitigation and adaptation and urban economies	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Water use and demand	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Waste generation and management	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Energy consumption and demand	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Transport system and traffic congestion	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5
Air quality and emission of GHGs	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5	2/5

CHAPTER 9 CONCLUSIONS, RECOMMENDATIONS AND INTRODUCTION TO ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

Introduction

The overall goal of the formalization of Evululuko informal settlement and establishment of Evululuko Township Extension 3 in Oshakati is to substitute the ongoing, severe environmental hazards (poor sanitation, uncontrolled waste) with a single, controlled phase of high-impact construction that ultimately delivers **sustainable long-term environmental benefits**.

Findings from this Environmental and Social Impact Assessment (ESIA) Report suggest that the proposed formalization of Evululuko informal settlement into Evululuko Township Extension 3 was more viable from both environmental and social perspectives, provided that the recommended mitigation measures are strictly implemented and that the Oshakati Town Council does deviate away from the original proposal during the implementation stage.

Based on this ESIA Report, **4 key phases** were identified in the formalization of Evululuko informal settlement including: **1)** Planning, assessment and stakeholder engagement, **2)** Legal and tenure formalization, **3)** Infrastructure and physical upgrading and **4)** Socio-economic and institutional development.

- Critically, the ***infrastructure and physical upgrading*** phase requires the most detailed impact assessment and the strictest mitigation measures to control short-term negative effects on the **physical environment**.

9.1. Physical environmental impacts

This phase involves physical, on-the-ground construction activities that will directly alter the natural environment and generate significant waste and resource demands. The primary negative environmental impacts stem from:

- **Habitat Loss and Land Alteration:** The construction of new roads, utility trenches (for water, sewer, and electricity), and the creation of formalized plots require extensive **earthworks**, including clearing vegetation and moving large amounts of soil. This permanently changes the topography, can lead to **soil erosion**, and results in the **loss of local biodiversity**.
- **Pollution from Construction:**

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- **Air Pollution:** Generated by construction vehicles, heavy machinery, and **dust** from earth-moving and grading activities.
- **Water Pollution:** Sediment-laden runoff from construction sites can contaminate local streams or drainage systems. Chemicals and fuels from equipment also pose a risk to surface and groundwater.
- **Resource and Waste Generation:** This phase demands significant raw materials (cement, aggregates, steel, piping) and energy. It also generates a large volume of **construction and demolition waste (C&D waste)**, which must be managed properly to avoid environmental contamination.

9.2. Social environmental impacts

The other 3 phases constitute minimal environmental impacts and by observation, these phases had or will have long-term **social environmental impacts** such as:

- **Improved Sanitation:** Installing formal sewer systems eliminates uncontrolled discharge of human waste, drastically reducing **water** and **soil contamination**.
- **Formal Waste Management:** Implementing municipal solid waste collection stops open dumping and burning, significantly improving **public health and local environmental quality**.
- Increased **demand on municipal services, resource consumption**, and **potential disruptions** to the local community's social structure.

9.3. Recommendations

To ensure the success and sustainability of the project, the following recommendations are made:

- Develop an Environmental and Social Management Plan (ESMP) for the proposed development.
- Strict implementation of mitigation measures: It is crucial that all mitigation measures be followed diligently throughout both the construction and operational phases to minimize any environmental and social harm.
- Ongoing Monitoring and Evaluation: Regular monitoring and assessment should be conducted to evaluate the project's impacts. This will ensure that any emerging issues are addressed promptly to maintain a balance between development and environmental/social integrity.
- Inclusive Stakeholder Engagement: Regular and meaningful engagement with all stakeholders, including local communities, traditional leaders, and municipal representatives, is essential for

Environmental Impact Assessment (EIA Report) *Proposed Establishment of Evululuko Township* maintaining transparency, inclusivity, and trust. Addressing the concerns of residents and other stakeholders will help ensure community buy-in and reduce opposition to the project.

- Collaboration with Oshakati Town Council: Close coordination with OTC's authorities is necessary to align the project with the town's urban planning strategies. This collaboration will help reduce pressure on existing infrastructure and ensure that the development complements Oshakati's long-term growth plans.
- Maximizing Local Economic Benefits: Efforts should be made to prioritize local employment, offer skills training programmes, and involve local suppliers throughout the project lifecycle. This will help ensure that the development benefits the local economy and contributes to the livelihoods of Oshakati's residents, fostering community ownership of the project.
- Addressing Social Impacts on Local Communities: Given Oshakati's rapid urbanization, it is important to consider the potential social impacts, such as displacement or disruption to the local community structure. Effective communication and support services should be provided to mitigate these impacts and help the community adapt to the changes brought by the development.

9.2. INTRODUCTION TO ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

Development of the ESMP is hereby being initiated and the detailed ESMP shall be developed and implemented as a **legally binding** document:

- ✓ **To minimize negative environmental and social impacts, measures shall be implemented as part of the ESMP.**

Below is a summary of these measures. A detailed ESMP will be developed to guide the proponent better.

9.3. Physical Environmental Measures

Soil Disruption

- Implement erosion control measures like silt fences and vegetation buffers.
- Limit excavation to designated areas and rehabilitate disturbed areas promptly.
- Schedule construction activities during the dry season to minimize runoff.

Habitat Degradation

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- Minimize vegetation clearance and retain native plants where possible.
- Avoid construction activities during breeding or nesting seasons for local wildlife.
- Create designated pathways to reduce trampling and disturbance.

Air Quality Impacts

- Regularly water exposed soil to reduce dust generation.
- Use dust suppressants on unpaved roads and construction sites.
- Ensure that machinery and vehicles are well-maintained to minimize emissions.

Noise Pollution

- Limit construction activities to daylight hours to reduce disturbances.
- Use sound barriers or mufflers on noisy equipment.
- Inform nearby communities about construction schedules to manage expectations.

Water Contamination

- Store hazardous materials in designated, secure areas to prevent spills.
- Install spill containment systems and provide training on spill response.
- Properly dispose of wastewater and avoid discharging it into natural water bodies.

Landscape Alteration

- Design construction plans that integrate with the existing landscape.
- Restore altered areas with native vegetation after construction.
- Create visual screens like trees or fencing to reduce visual impacts.

Waste Generation

- Implement waste segregation and recycling programmes on-site.
- Properly dispose of construction waste at authorized facilities.
- Minimize material wastage through efficient procurement and inventory management.

Public Health Risks

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- Provide adequate sanitary facilities and waste management for workers.
- Conduct health awareness sessions on communicable disease prevention.
- Regular health screenings for workers to monitor and address potential health issues.

Traffic Disruptions

- Create designated entry and exit points to reduce traffic congestion.
- Use traffic signs and flag personnel to guide vehicles safely.
- Coordinate construction schedules to minimize peak-hour disruptions.

9.4. Social Environmental Measures

Housing Pressure

- Provide temporary housing solutions for construction workers to prevent overcrowding.
- Collaborate with local authorities to ensure affordable housing options.
- Enforce zoning regulations to prevent the development of informal settlements.

Strain on Water and Sanitation Services

- Upgrade existing infrastructure to handle increased demand.
- Introduce water conservation measures and awareness campaigns.
- Ensure construction sites have adequate sanitation facilities to reduce strain on public resources.

Disruptions to Informal Livelihoods

- Conduct stakeholder engagement to identify affected groups, such as street vendors.
- Provide alternative vending spaces or temporary relocation assistance.
- Establish compensation programmes where necessary to offset economic losses.

Influx of Workers Leading to Social Tensions

- Implement community engagement programmes to foster cultural integration.
- Ensure fair recruitment practices so employment opportunities benefit locals.
- Set up a grievance mechanism to address conflicts before they escalate.

Road Safety Risks

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- Install road signage and speed control measures near construction areas.
- Provide safe pedestrian crossings and enforce traffic regulations.
- Conduct public awareness campaigns on road safety for both workers and the community.

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