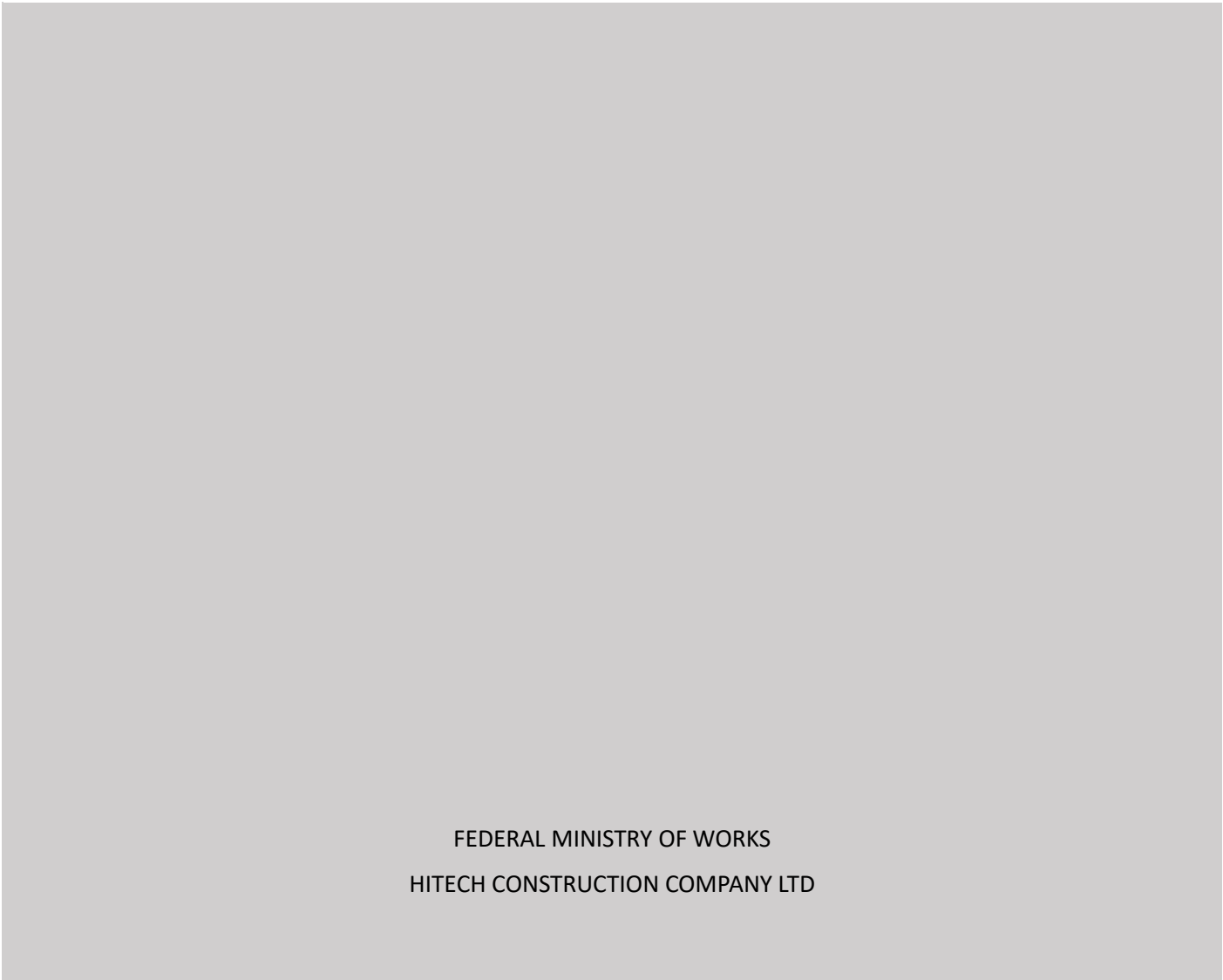




NON TECHNICAL SUMMARY

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

LAGOS CALABAR COASTAL HIGHWAY PROJECT
SECTION 1 (EKO ATLANTIC TO ELEKO – 47.5)

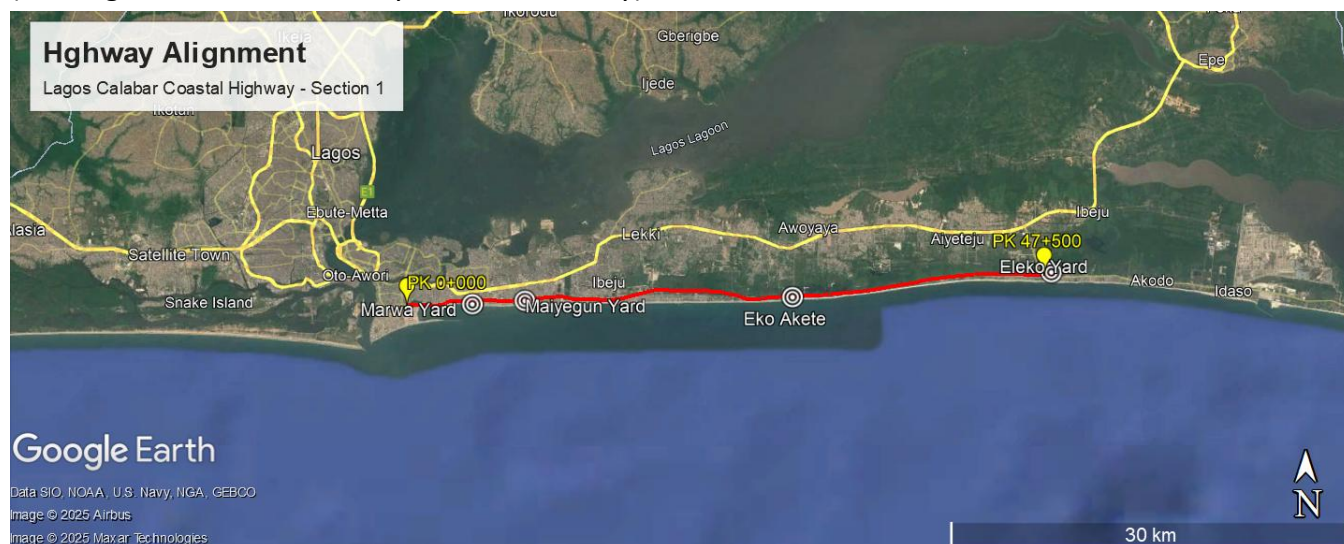


FEDERAL MINISTRY OF WORKS
HITECH CONSTRUCTION COMPANY LTD

1 Executive Summary

1.1 Brief project description

The Lagos Calabar Coastal Highway (LCCH) Project is a pivotal infrastructure development designed to enhance transportation and economic connectivity along approximately 700 kilometers of Nigeria's coastline. Spanning from Lagos to Calabar, this project is structured to boost regional integration and economic growth across multiple states. The construction of the LCCH is segmented into 9 phases, with the initial Section 1 covering a 47-kilometer stretch from Victoria Island, Lagos (starting at Ahmadu Bello Way, Eko Atlantic City) to Eleko.



The LCCH is implemented under an Engineering, Procurement, Construction, and Financing (EPC+F) contract, managed by Hitech Construction Africa Limited (Hitech), with the Federal Ministry of Works (FMWorks) as the Project Proponent.

Construction commenced in March 2024 with preparatory site clearance and demolition activities initiating in May 2024. The project is anticipated to require a workforce of approximately 1000 during the construction phase, which will include the establishment of several construction yards such as the Plant Yard, Marwa Yard, Maiyegun Yard, Eko Akate Yard, and Eleko Yard, along with three sand borrow pits. The Environmental Impact Assessment (EIA) has received approval, with certification issued by the Federal Ministry of Environment (FMEnv) on 08 November 2024. Hitech also developed a Supplementary ESIA in October 2024 to align the project with international standards.

The project incorporates Continuous Reinforced Concrete Pavement (CRCP) technology, recognized for its durability and suitability in coastal environments. This technology offers resilience against harsh climatic conditions, heavy loads, and minimal maintenance needs, making it ideal for the coastal highway's requirements. The construction also involves sand filling, earthworks, infrastructure installations such as water systems and road drainage enhancements, and the erection of critical waterway crossings including causeways, culverts, and bridges.



Once operational, the highway is set to transform the transportation landscape of the region, enhancing the movement of goods and people, reducing travel times, and promoting socio-economic development. Regular maintenance and safety monitoring will ensure long-term functionality and reliability of the highway.

The project is scheduled for completion within 36 months, with all construction and commissioning activities aimed to conclude by December 2027.

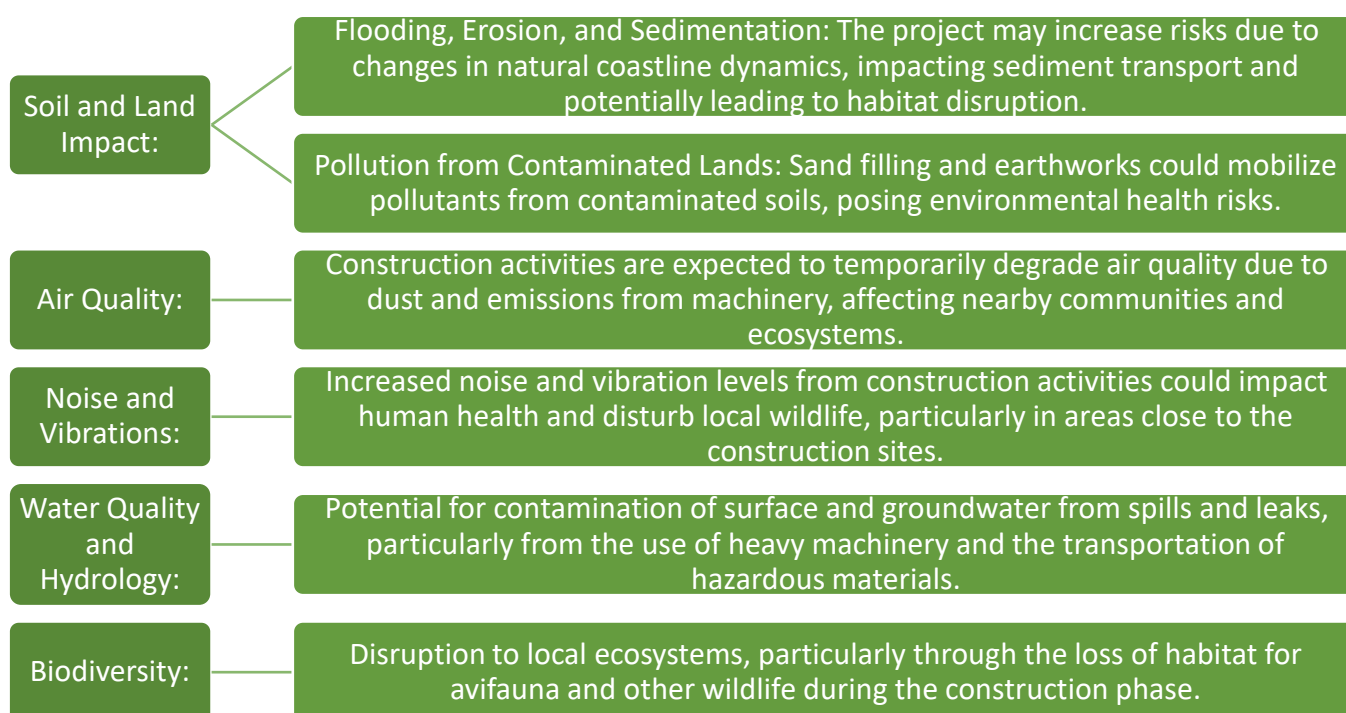
1.2 Key findings of the ESIA

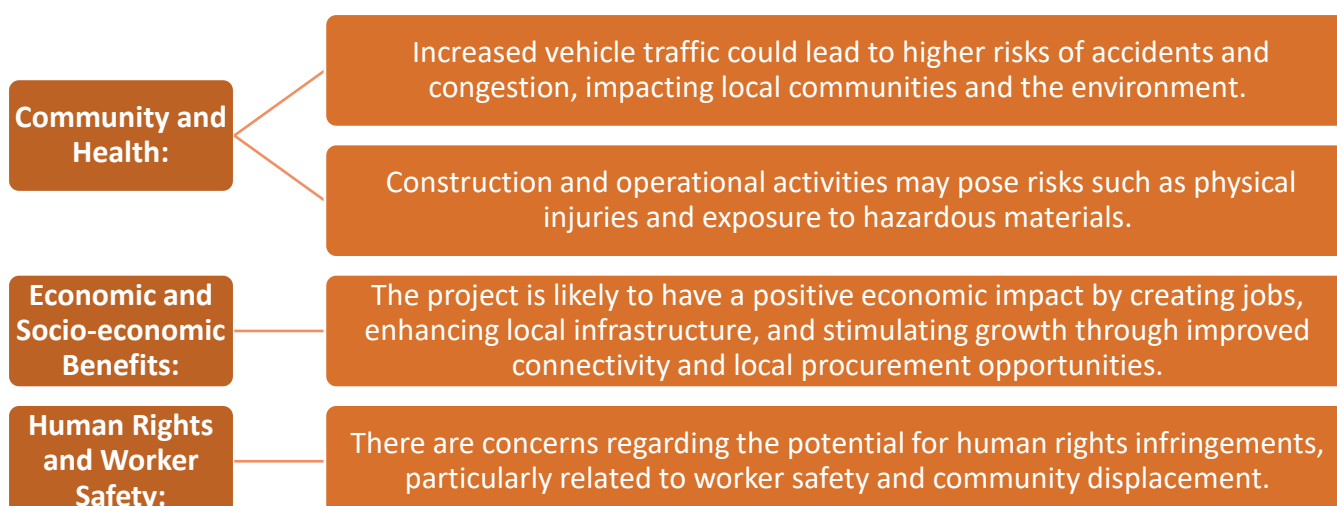
An Environmental and Social Impact Assessment (ESIA) study was prepared for the project, which is an evaluation process that analyzes the potential environmental and social impacts associated with a proposed highway. It aimed to identify, the likely consequences of the project on the natural environment, human health, and socio-economic conditions.

Soil	Air Quality	Noise and Vibrations	Hydrology	Biodiversity	Social
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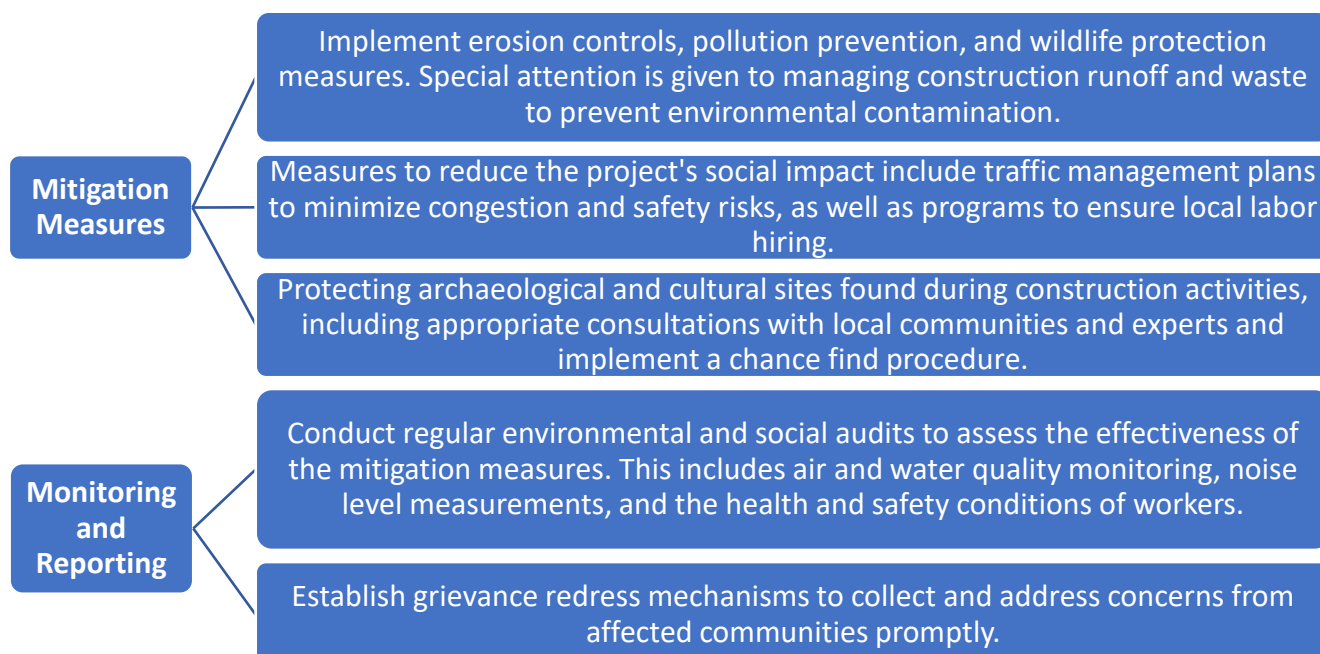
The ESIA included a detailed examination of the environmental and socio-economic baseline conditions, as a base for assessing the potential impacts and defining effective mitigation measures. This included site inspections, measurements of noise and vibrations, soil and water analysis, biodiversity surveys, socioeconomic surveys and public consultations. The technical methodology, and detailed description is included in the Supplementary ESIA report. Below is an overview of the significant impacts identified.

Environmental Impacts:



Social Impacts:**1.3 Summary of the ESMP**

Hitech has developed an Environmental and Social Management Plan (ESMP) for the Project, aimed at ensuring compliance with the IFC Performance Standards, Equator Principles IV, and local Nigerian regulations. The ESMP is designed to monitor and manage environmental and social impacts through a system that tracks compliance and indicators, enabling adjustments as needed. Strategies include implementing detailed mitigation measures to minimize environmental degradation and social disruption—covering air quality, noise, waste management, and biodiversity conservation. Additionally, the plan emphasizes the protection of community and worker safety through stringent safety protocols and emergency response measures, while also prioritizing stakeholder engagement to maintain lines of communication, facilitating community and stakeholder involvement throughout the project lifecycle.



The ESMP is designed to ensure that the Lagos Calabar Coastal Highway Project is executed in an environmentally sustainable and socially responsible manner

2 Project Description

The Lagos Calabar Coastal Highway (LCCH) Project represents a significant infrastructural development spanning approximately 700 kilometers along Nigeria's coastline, from Lagos in the southwest to Calabar in the southeast. This monumental project aims to bolster transportation and economic connectivity across multiple states, fostering regional integration and economic growth throughout the region. The project is structured into nine distinct phases, with the first segment, Section 1, encompassing a 47-kilometer stretch from Victoria Island, Lagos (starting at Ahmadu Bello Way, Eko Atlantic City) to Eleko.

The LCCH is executed under an Engineering, Procurement, Construction, and Financing (EPC+F) contract, meticulously managed by Hitech Construction Africa Limited (Hitech), one of the leading construction firms in the region. The Federal Ministry of Works (FMWorks) serves as the Project Proponent, overseeing the project's strategic direction and compliance with national objectives.

The table below provides an overview of the proposed highway project.

Aspect	Details
Project Components	<ul style="list-style-type: none"> • Road surface (paved or graded) and Road reserve ("hard shoulder"). • Crossings (e.g. bridges, culverts), Drainage and erosion control structures. • Safety and security measures (e.g. barriers and fencing).
Project Length	<ul style="list-style-type: none"> • Approximately 700 kilometres with 47.5km along section 1 from Eko Atlantic's Ahmadu Bello Road and terminates at Eleko
Highway Width	<ul style="list-style-type: none"> • 59.3m with a rail median of 20m • 33.5m with a median of 4.5 for Lighting Schemes
Rail Integration	<ul style="list-style-type: none"> • For Km 10, a width of 20m median is proposed along the highway for rail provision that will be designed and developed at a future stage.
Highway Speed	<ul style="list-style-type: none"> • 50 km/h from PK 0+000 to PK 10+000. • 100 km/h from PK 10+000 to end of project
Road footprint	<p>The first phase of the highway covers a 47.5kilometer section starting from Victoria Island in Lagos. This section is also divided in 3 subsection for internal management and coordination purposes:</p> <ul style="list-style-type: none"> ○ Section 1a: From Eko Atlantic to Okun Ajah ○ Section 1b: From Okun Ajah to Akete ○ Section 1c: From Akete to Eleko
Highway Features:	<ul style="list-style-type: none"> • Five lanes on each side of the dual carriageway, with a train track running through the middle. • 7 bridges for traffic circulation • 50 culverts designed to discharge the total runoff towards the north side or inland/river side, to avoid erosion of coastal front. • Drainage system for a 10-year return period storm using manholes connected by RCC pipes with diameters between 600 mm and 1,200 mm every 20m to collect runoff through inlet structures. • Solar powered lighting system using LED lamps of single arm and double arm columns, solar panel, charge controller and batteries located every 25m.
Alignment Considerations:	<ul style="list-style-type: none"> • Eko Atlantic's Ahmadu Bello Road: The alignment starts here, running parallel to the coastline • Cross-State Connection: Extends across Ogun, Ondo, Delta, Bayelsa, Rivers, and Akwa Ibom States, terminating in Calabar, Cross River State.

Aspect	Details
	<ul style="list-style-type: none"> • Trans West African Highway Connection: Links with the Lagos-Benin-Enugu-Abakiliki-Ikom-Cameroon-Mombasa route. • Avoidance of infrastructures/utilities like Telecommunication corridor and pipelines that are existing along the proposed corridor.
Infrastructure and Utilities	<ul style="list-style-type: none"> • The relocation works for the existing Electrical and Telephone networks shall include relocation or construction of new networks to replace existing networks obstructing new road alignments, in coordination with the relevant authorities whenever needed. • Crossings ducts of 4x160mm at spacing of 0.5km along the road and at every crossing and junctions of the road, for future extension of the electrical network. • Crossings ducts of 4x110mm at spacing of 1km along the road for future extension of the telecom network.

Construction officially commenced in March 2024, with preparatory activities including site clearance and demolition starting in May 2024. The project anticipates the engagement of approximately 1000 workers during the construction phase, a critical factor in the project's contribution to local employment and skills development.

Construction Yards

During construction activities Hitech will establish the Marwa Yard, Maiyegun Yard, Eleko Yard, and Eko Akete Yard, which serve multiple functions that support the project's execution. These yards are strategically located along the route to facilitate easy access to the construction site, storage of materials, equipment, and vehicles. They include operational facilities including workshops for equipment maintenance, temporary offices for project management, security, and essential utilities like water and power supply. Additionally, these yards manage waste disposal and provide areas for the assembly and preparation of concrete structures.

Environmental Compliance and Standards

The Environmental Impact Assessment (EIA) for the project was rigorously evaluated and subsequently approved, with certification granted by the Federal Ministry of Environment (FMEnv) on 8 November 2024. In a proactive measure to align with global best practices, Hitech developed a Supplementary ESIA in October 2024. This supplementary assessment ensures that the project adheres to international environmental and social standards, reflecting Hitech's commitment to sustainable construction practices. Both reports have been publicly disclosed.

Construction activities

The initial phase involves demolition and clearing activities, which are conducted by the government. This includes a government-led resettlement process where affected individuals are compensated according to the Nigerian Land Act. Following this, Hitech undertakes vegetation clearance as needed before proceeding with sand filling to prepare the ground for the concrete pavement of the highway. The sand required for the LCCH Project is sourced from two key locations to ensure a consistent supply of material for the construction and stabilization of the roadway, particularly in swampy areas. The first source is an offshore borrow pit as part of the Eko Atlantic Land Reclamation project, while the second involves three designated inland sand borrow pits located in Akawdo, Omui, and near the Lekki Lagoon. These sources provide the necessary volumes of sand essential for the project's fill requirements.

Transportation of sand to the construction site is efficiently managed through trucks that transport the material from these borrow pits directly to the project route. Upon arrival at the site, the sand is used to fill and stabilize the swampy land, creating a solid foundation for the highway. This technique

of land filling with sand is a common developmental practice in the region, to address the challenges posed by the soft and often unstable ground conditions typical of Nigeria's coastal and deltaic environments.



A key technological aspect of the LCCH Project is the adoption of Continuous Reinforced Concrete Pavement (CRCP) technology, renowned for its durability and suitability for coastal environments. CRCP's design includes continuous steel reinforcement, which helps prevent cracks from forming and spreading, thus providing a long-lasting, low-maintenance pavement solution ideal for the heavy loads and harsh climatic conditions characteristic of the Nigerian coastline.



In addition the project involves earthworks necessary to prepare the foundation for the highway. The construction plan also includes the installation of advanced water systems and the enhancement of road drainage systems to manage the area's hydrology effectively. Moreover, the project requires the erection of critical waterway crossings, such as causeways, culverts, and bridges, designed to ensure the resilience and integrity of the highway across various aquatic

environments. During operation, regular maintenance and safety monitoring are planned to ensure the long-term functionality and reliability of the highway.

The project is scheduled for completion within 36 months, targeting all construction and commissioning activities to conclude by December 2027.

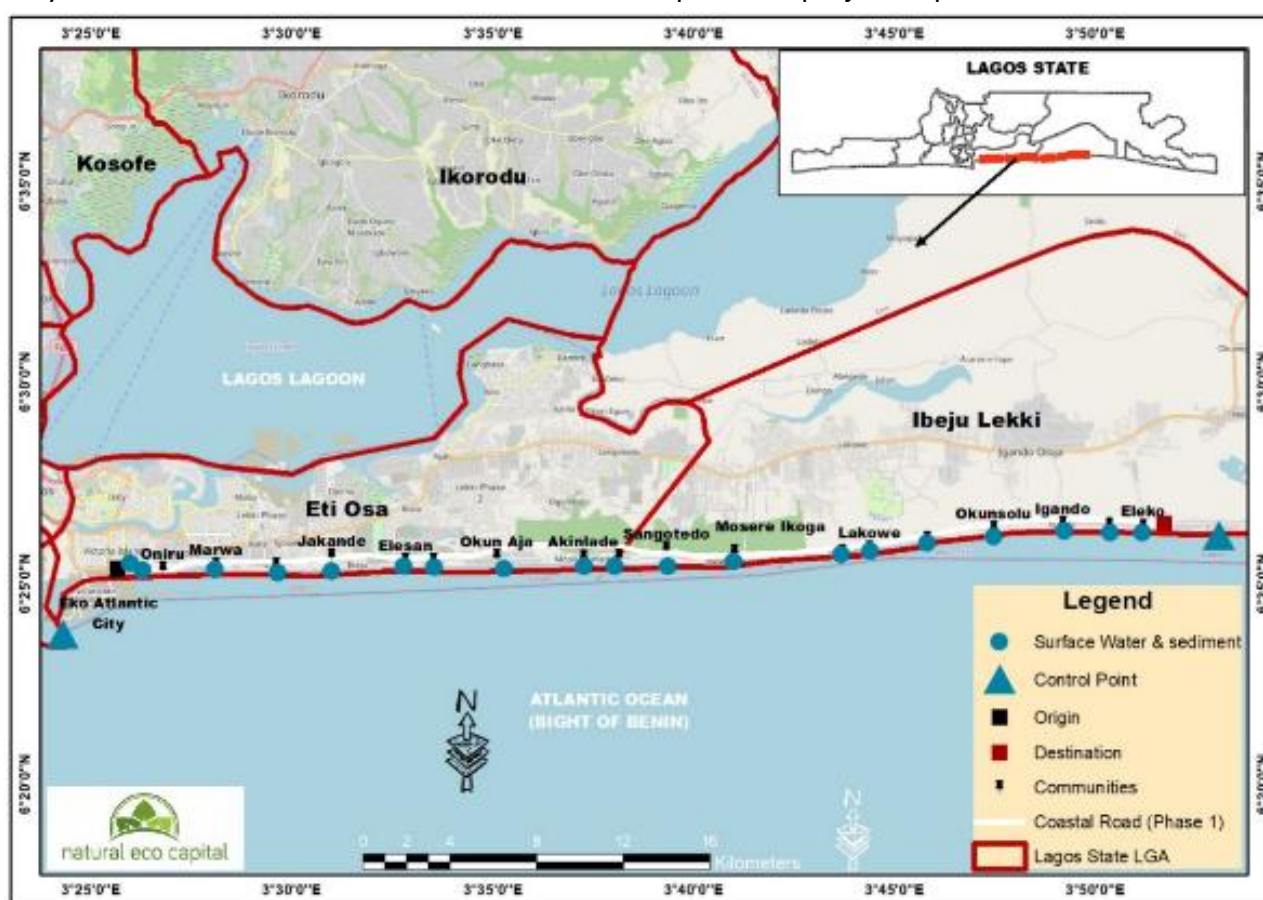
3 Environmental and Social Baseline

This chapter aims to provide an understanding of the physical, biological, socio-economic, and cultural heritage aspects within the Area of Influence (AoI) of the LCCH Project. It focuses on identifying the principal environmental and social receptors that may be affected by the project, utilizing baseline data collected from literature reviews, stakeholder engagements, and extensive field surveys and investigations.

By having detailed initial assessments, Hitech can effectively track the environmental and social changes that occur as a result of construction activities. This ongoing monitoring is integral to evaluating the effectiveness of the Environmental and Social Management System (ESMS) implemented for the project. The ESMS outlines the strategies and measures Hitech uses to mitigate adverse impacts on the environment and local communities.

3.1 Methodology

The AoI is crucial for assessing the potential impacts of the proposed Lagos-Calabar Coastal Road project. This area extends primarily along the project's 47.5-kilometer route from Victoria Island to Eleko in the Ibeju-Lekki area. The zone of influence stretches approximately 500 to 1000 meters from the centerline of the proposed road, encompassing varied landscapes including developed urban areas and natural coastal environments. The methodology employed involves a delineation of the study area, with detailed environmental and social sampling at identified points along the proposed highway. Environmental components such as air quality, soil, groundwater, and surface water were analyzed to understand their current conditions and potential project impacts.



3.2 Air Quality

Sampling across key community locations showed generally acceptable levels of air pollutants but highlighted areas where industrial and traffic emissions could pose risks. By establishing baseline air quality, Hitech can continuously monitor changes and trends caused by construction activities. This ongoing surveillance helps identify any deviations from expected levels, assess the efficacy of dust suppression measures, and adapt strategies as needed to ensure compliance with environmental standards and minimize impacts on local communities.

The air quality is generally good and within acceptable limits set by national and international standards. Key pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), volatile organic compounds (VOCs), and particulate matter (PM_{2.5} and PM₁₀) were mostly recorded at low levels,

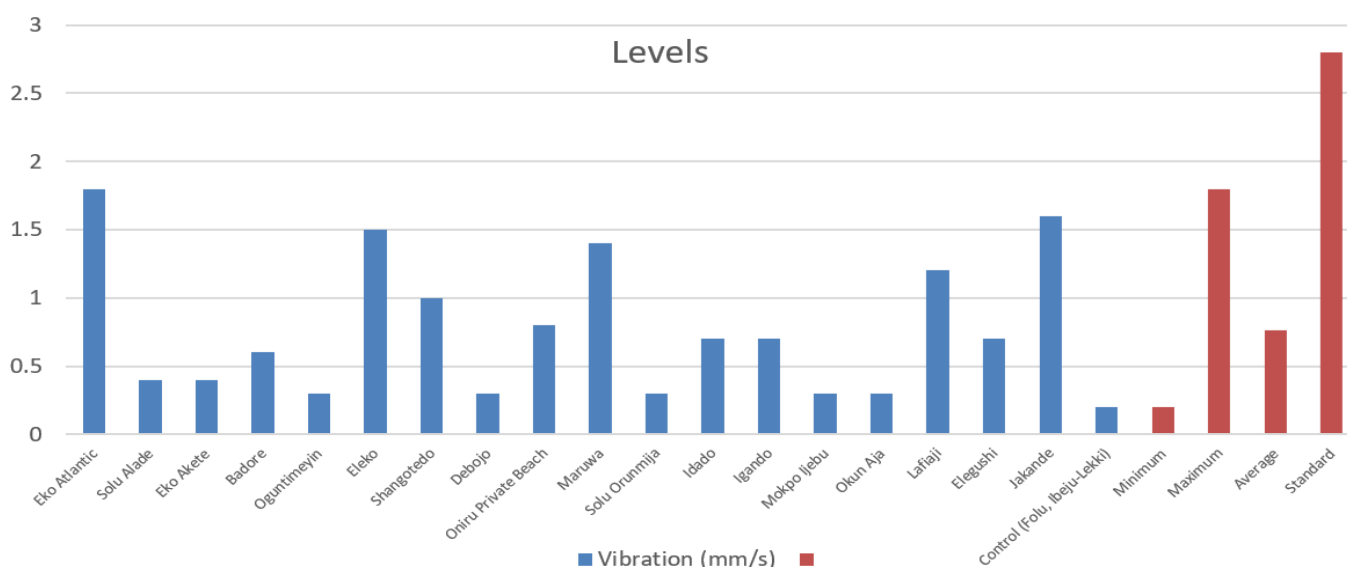
indicating minimal pollution at the time of sampling. While a few locations like Eko Atlantic, Eleko, and Maruwa showed slightly elevated values—likely due to construction activity and vehicle emissions—the overall concentrations remained below regulatory thresholds. Importantly, PM_{2.5} levels, which pose significant health risks, were found to be well below the World Health Organization’s recommended limits. These results provide a reliable baseline for monitoring air quality during construction and help ensure that mitigation measures are effectively implemented to protect community and environmental health.

3.3 Noise and Vibrations

From the noise measurements, existing levels exceed NESREA limits at all points (50dBA for commercial and 60dBA for residential). This could be attributed to several factors depending on the location. Notably, this evidence includes some of the ongoing construction activities and other development projects at some of the locations, proximity of others to roads and areas with commercial activities. The noise level will further increase during the road construction and after commissioning. These ranges provide insights into the variability of noise exposure across different monitoring locations.

S/N	Monitoring Locations	Land use	Noise (dBA) Av.	NESREA LIMITS
1.	Eko Atlantic	Commercial	65.2	60.0
2.	Solu Alade	Residential	62.5	50.0
3.	Eko Akete	Mixed Residential	61.7	55.0
4.	Badore	Residential	62.4	50.0
5.	Oguntimeyin	Residential	61.6	50.0
6.	Eleko	Commercial	67.5	60.0
7.	Shangotedo	Commercial	66.2	60.0
8.	Debojo	Residential	56.3	50.0
9.	Oniru Private Beach	Mixed Residential	62.6	55.0
10.	Maruwa	Commercial	70.6	60.0
11.	Solu Orunmija	Residential	53.1	50.0
12.	Idado	Residential	62.2	50.0
13.	Igando	Residential	57.3	50.0
14.	Mokpo Ijebu	Residential	56.6	50.0
15.	Okun Aja	Residential	66.5	50.0
16.	Lafiaji	Residential	57.9	50.0
17.	Elegushi	Mixed Residential	65.6	55.0
18.	Jakande	Mixed Residential	67.4	55.0
19.	Control (Folu, Ibeju-Lekki)	Residential	52.1	50.0

Vibration levels were determined for 1 hour at all sampling locations. The results of the vibrations in millimetres per second (mm/s). The levels of vibration were all contained within the regulatory limit of 2.8mm/s with the highest value obtained at Eko Atlantic where skeletal road construction activities (for the area where the proposed project will start from) were ongoing during the data gathering exercise.



Results of vibration assessment along the project corridor

3.4 Water Quality

Analysis of both surface and groundwater sources indicated variability in quality, with some locations showing contamination risks that may require management. The variability in water quality identified in the baseline study allows Hitech to implement targeted monitoring at specific locations where contamination risks were noted. Continuous testing of both surface and groundwater ensures that any negative changes can be swiftly addressed, and corrective actions can be taken to prevent harmful impacts on local water resources and community health.

The groundwater quality results from the project area indicate generally acceptable conditions, with some variation across sampling points. The pH values, ranging from 5.4 to 8.2 and averaging around 7.0, show that the water is mostly neutral, which is ideal for general use. Electrical conductivity values, which reflect the amount of dissolved salts and minerals, vary moderately, with higher readings in some areas suggesting mineral-rich water but still within manageable levels. Turbidity, or water cloudiness, averaged slightly above the preferred limit, indicating the presence of some suspended particles that may require filtration before use. Total Dissolved Solids (TDS) also varied, with an average that is considered suitable for most non-potable uses, though localized higher values could affect taste and require treatment if used for drinking. Overall, the groundwater is usable, but some locations may need light treatment depending on intended use.

3.5 Soil and Sediment analysis

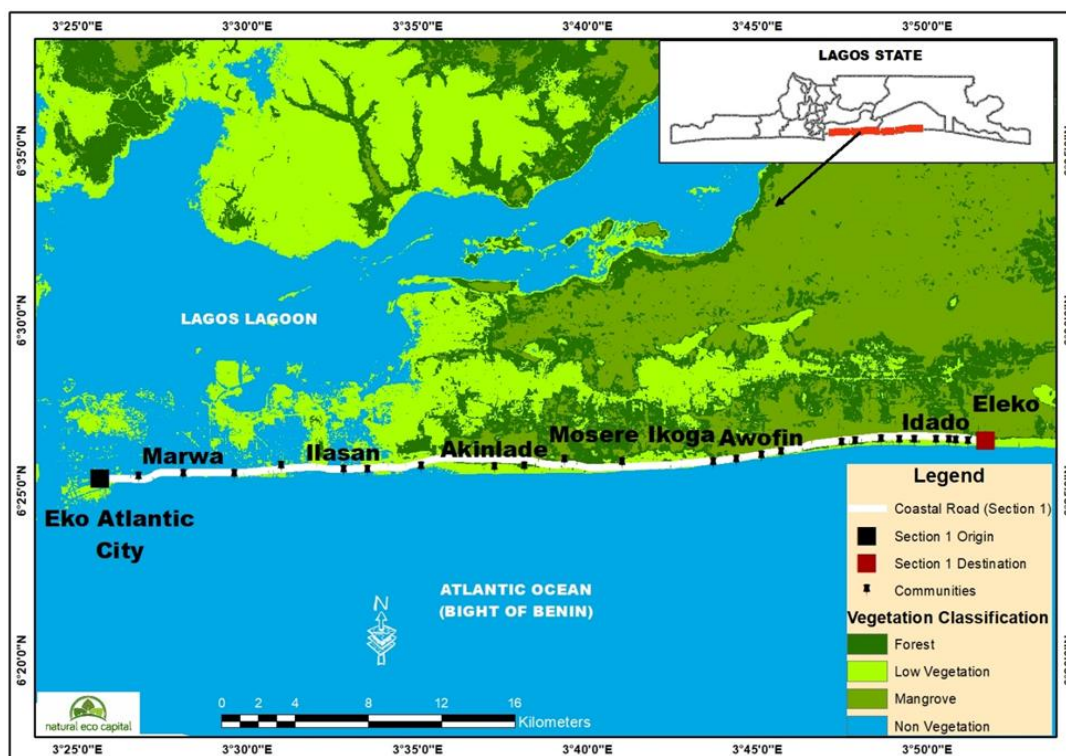
The soil analysis in the project area reveals a predominantly sandy composition, with pH levels ranging from slightly to strongly basic (7.2–9.2), supporting high soil aeration but also contributing to lower nutrient retention. The sandy texture, found in both surface and subsurface layers, influences water drainage and nutrient leaching, as confirmed by generally low electrical conductivity values. Organic carbon content varies significantly, likely due to differences in vegetation cover and rapid decomposition rates under tropical conditions. The presence of key nutrients such as calcium, magnesium, potassium, and sodium indicates moderate fertility, although the sandy nature may limit their availability. Anion levels, including nitrates and chlorides, are also present in moderate amounts. Traces of hydrocarbons and other organics were detected but remain within expected ranges, while heavy metals such as iron and zinc were recorded at typical background levels, with no alarming concentrations of toxic elements like cadmium or arsenic. These findings highlight the importance of tailored land management strategies to address the soil's limitations, especially for agriculture and infrastructure development.



Key findings also highlighted varying concentrations of heavy metals and other organics within the soil, which are critical considerations for environmental management and construction planning in the project area. Sand sourcing is also subject to analysis to avoid soil contamination during sand filling.

3.6 Biological

The biological baseline study presents a rich and diverse natural environment that includes coastal, freshwater, and forest ecosystems. The study considered field surveys and observations from biodiversity experts as well as desktop review from studies done in the region and databases such as the Integrated Biodiversity Assessment Tool (IBAT). The two primary ecosystems observed are freshwater swamp forest (95.2%) and mangroves (4.8%). These habitats support a wide variety of plant and animal life, some of which are of conservation concern.



In total, 125 plant species were identified, with families such as Asteraceae, Euphorbiaceae, and Rubiaceae being dominant. Common plants included *Aspilia africana*, *Chromolaena odorata*, *Alchornea cordifolia*, and food or economically valuable species like *Mangifera indica* (mango), *Zea mays* (maize), and *Elaeis guineensis* (oil palm).

Wildlife in the area is also highly diverse, with 58 animal species recorded. These include mammals like the Mona Monkey (*Cercopithecus mona*), Giant Rat (*Cricetomys emini*), and African Brush-tailed Porcupine (*Atherurus africanus*), as well as reptiles like the Central African Rock Python (*Python*

sebae) and the Gaboon Viper (*Bitis gabonica*). Bird species such as the Black-headed Oriole (*Oriolus larvatus*), Pied Crow (*Corvus albus*), the Little Egret (*Egretta garzetta*) and the endangered Grey Parrot (*Psittacus erithacus*) were observed.



The coastal and marine areas fall within the Guinea Current Large Marine Ecosystem (GCLME), a globally important marine zone that supports rich biodiversity including plankton, benthic organisms, and fish. Marine species potentially present near the project include the endangered Atlantic Humpback Dolphin (*Sousa teuszii*), African Manatee (*Trichechus senegalensis*), and several endangered sharks and rays like the Great Hammerhead (*Sphyrna mokarran*) and the Oceanic Manta Ray (*Mobula birostris*).

The project area lies near but does not directly impact protected areas such as the Lekki Conservation Centre and Omo Forest Reserve. These reserves are critical for biodiversity conservation in Nigeria and support rare species and important habitats. Additionally, while the African Grey Parrot was identified in the area, its population does not meet the IFC threshold for Critical Habitat.

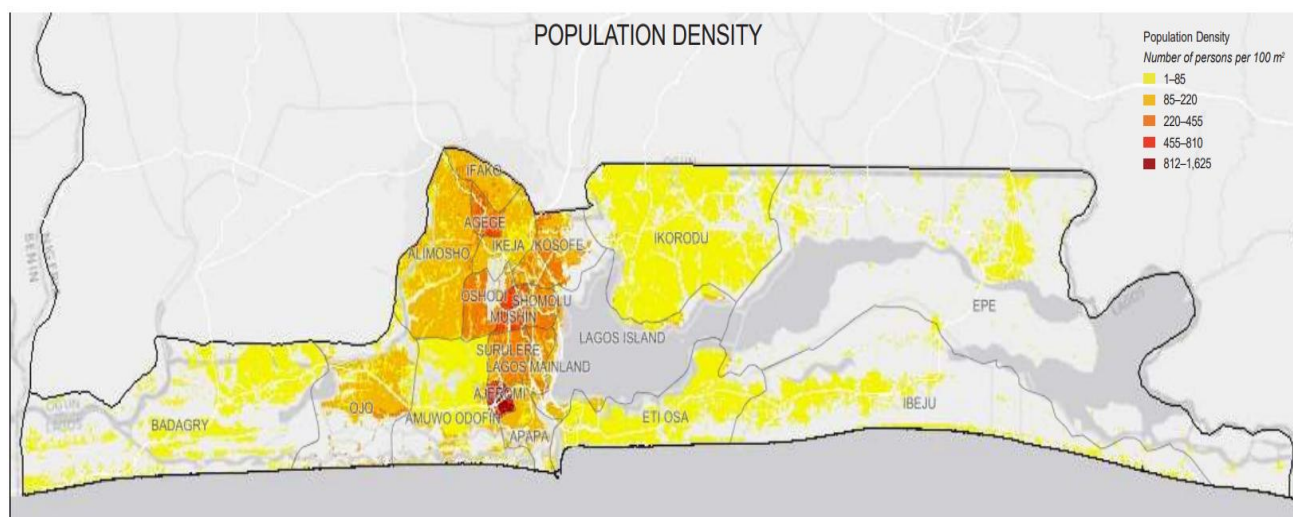
3.7 Socioeconomic

This section presents an overview of the socio-economic and cultural conditions within the project AOI covering Eti-Osa and Ibeju-Lekki Local Government Areas (LGAs) in Lagos State. The objective is to capture existing demographic, economic, and cultural dynamics to inform the ESIA study.



3.7.1 Demographic Characteristics

The AOI is experiencing rapid population growth driven by urbanization, migration, and industrial development. Based on the 2006 Census, Eti-Osa had a population of approximately 282,000 and Ibeju-Lekki about 118,000. However, current estimates suggest these figures have more than doubled, particularly in Ibeju-Lekki where infrastructure investments (such as the Lekki Deep Sea Port and Dangote Refinery) have attracted a surge in migrant workers and settlers. The population is youthful, with over 60% under the age of 35, reflecting both a potential labor force and a demographic prone to unemployment and social vulnerability. While the majority ethnic group is Yoruba, there is a strong presence of other Nigerian groups, as well as West African migrants from Benin, Togo, and Ghana, contributing to the area's diversity.



Lagos population density

3.7.2 Settlement Patterns and Land Use

Settlements within the AOI vary from dense urban neighborhoods in Lekki and Ajah to semi-urban and rural fishing and farming communities in areas like Ilado, Okun Alfa, and Idasho. Land tenure systems are primarily customary, with family and community ownership dominant. The increasing demand for land due to industrial projects and private developments has led to complex land disputes, speculative acquisition, and in some cases, involuntary displacement. Poor infrastructure persists across much of the AOI—especially in Ibeju-Lekki—characterized by unpaved roads, lack of drainage systems, poor waste management, and irregular power supply. Basic services such as water and sanitation remain inadequate in many communities.

3.7.3 Livelihoods and Local Economy

Livelihoods are shaped by proximity to the coast, lagoon systems, and urban centers. In rural and peri-urban areas, artisanal fishing and small-scale aquaculture are key activities, with communities depending on daily catches for income and sustenance. Farming is practiced, primarily subsistence in nature, involving crops like cassava, maize, vegetables, and fruit trees. However, land access challenges and soil salinity are reducing productivity. In urban and semi-urban zones, a growing informal economy dominates—trading, transport services, artisanship (e.g., carpentry, welding), and food vending. A significant proportion of the youth population remain unemployed or underemployed, particularly in Ibeju-Lekki. Despite the presence of large infrastructure projects, community members report limited access to decent jobs, exacerbating poverty and frustration.



3.7.4 Social Infrastructure and Services

Access to public services remains uneven across the AOI. While Eti-Osa benefits from more urban facilities, even these are stretched and often unaffordable. In both LGAs, public schools are

overcrowded and underfunded, and private schools dominate the education sector, leaving many children—particularly in low-income households—vulnerable to dropping out. Health services are similarly constrained, with many communities relying on small, often poorly equipped primary health centers or informal drug sellers. Water supply remains largely informal, with boreholes and sachet water the main sources. Sanitation infrastructure is underdeveloped, increasing the risk of waterborne diseases and environmental degradation.



3.7.5 Vulnerable Groups and Social Dynamics



Several vulnerable groups were identified in the AOI. Women face barriers to land ownership, secure employment, and financial independence, despite being active in petty trading and processing of fish and farm products. Children are at risk of child labor, especially in trading and fishing communities, due to economic hardship and gaps in educational access. Migrant communities, particularly those without formal documentation or property rights, live in precarious conditions with limited access to basic services and

heightened risk of eviction. Elderly residents often lack access to healthcare or social protection and are reliant on community or family support.

3.7.6 Cultural Heritage and Practices

A cultural heritage assessment was undertaken to identify and safeguard both tangible and intangible heritage elements within the 1 km on either side of the proposed road. This process involved desktop research, GIS mapping, field surveys, and extensive community consultations with traditional leaders, cultural custodians, and religious institutions. Through participatory mapping and validation workshops, the project documented sacred sites, shrines, ancestral tombs, places of worship, traditional markets, and festivals—many of which, while not formally registered, are culturally significant under IFC Performance Standard 8. Notably, spiritual practices along the coastline, such as water-based rituals performed by syncretic Christian and traditional Yoruba groups, were identified and respected through design adjustments.

Project design prioritized avoidance of culturally sensitive sites. Where avoidance was not feasible, proactive alignment modifications were implemented to minimize disruption. A total of seven sites were directly impacted, including the Celestial Church of Christ in Lafiaji and several ancestral shrines and tombs. In all such cases, culturally appropriate mitigation measures were adopted, including compensation, relocation in consultation with community elders, and the facilitation of traditional rites without interference. The Cultural Heritage Management Plan (CHMP), including a Chance Finds Procedure, was established to manage unexpected discoveries during construction. These actions underscore the project's strong commitment to preserving spiritual continuity and cultural identity throughout the corridor.



3.7.7 Technology and Innovation

Local communities along the Lagos-Calabar Coastal Highway corridor expressed a strong demand for enhanced ICT infrastructure, citing inconsistent internet connectivity as a barrier to education, business, and service delivery. Survey data confirmed high mobile phone ownership (85–92%) but revealed limited broadband access, especially in Ibeju-Lekki and Eleko. The Lagos State Government, through its “Making Lagos a 21st Century City” initiative, is working to unify fibre optic infrastructure to improve digital inclusion. Enhanced connectivity is expected to drive innovation, support e-learning, empower small businesses, and streamline government services in project-affected areas.

3.7.8 Infrastructure and Utilities

The existing infrastructure in Eti-Osa and Ibeju-Lekki LGAs faces multiple challenges, including irregular electricity, poor road conditions, and limited access to potable water. Community consultations emphasized the need for upgrades in water, sanitation, power supply, and digital networks. The project is supporting coordinated efforts with local authorities to advocate for infrastructure investments, including the Lekki-Epe Expressway upgrade. The State’s integration of fibre-optic networks, energy reforms, and multimodal transport systems (BRT, rail, water transport) reflects a strategic push toward improving mobility, resilience, and access across Lagos.

3.7.9 Waste Management

Lagos generates 13,000–15,000 tons of municipal solid waste daily, with major challenges in collection, recycling, and marine pollution. LAWMA manages solid and marine waste, construction debris, and operates recycling initiatives, but mismanaged waste, particularly plastics, often leaks into waterways and the Atlantic Ocean—posing health and environmental risks. Informal waste pickers play a key role in material recovery. With growing urbanization, the project’s environmental safeguards align with broader efforts to improve waste infrastructure, reduce plastic leakage, and promote a cleaner, sustainable city through education, policy reform, and infrastructure investments.

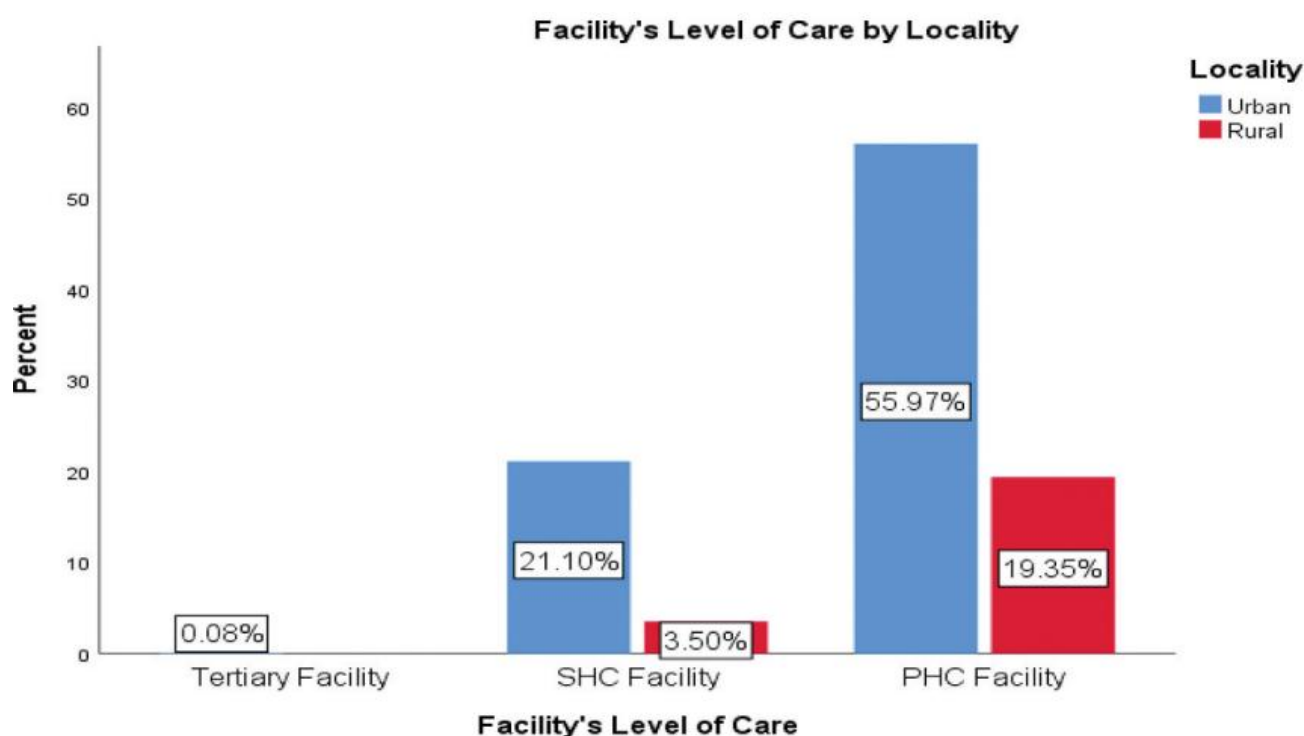
Collection		Disposal	
LAGOS STATE Waste generation 13,000 TPD	Collected by service providers	20% 2,644 TPD	Dumpsite - Official value by LBS - Lagos, year 2000 38% 3,726 TPD
	Informal collection	17% 2,252 TPD	Sorting for recovery 9% to 12% 1,170 to 1,560 TPD
	Uncollected	62% 8,104 TPD	Unmanaged 62% 8,104 TPD

Source: Original figure for this publication.

Note: TPD = tons per day.

3.7.10 Health Care Infrastructure

Lagos State hosts over 2,300 health facilities, but disparities remain in power access, emergency services, and equipment availability—particularly in rural areas like Ibeju-Lekki. Government-led initiatives, including LASHMA and the Lagos State Health Scheme, aim to ensure affordable healthcare and expand insurance coverage. The ESIA revealed gaps in emergency care, referral systems, and disease management, especially for malaria, HIV/AIDS, and non-communicable diseases. Facilities often lack transport, diagnostic equipment, and basic power, with public hospitals the most affected. Flood and erosion risks further threaten healthcare service delivery, reinforcing the need for climate-resilient, equitable health infrastructure.



4 Stakeholder Engagement

Stakeholder engagement has been a central part of ESIA process for the Project. During the ESIA process, public consultations were organized in both Eti-Osa and Ibeju-Lekki Local Government Areas to inform stakeholders about the project, gather local knowledge, understand concerns, and integrate community feedback into the project design. Consulted stakeholders included local residents, traditional leaders, women's groups, youth representatives, business owners, government agencies, and civil society organizations. All engagements were documented in a **Stakeholder Engagement Plan (SEP)** developed specifically for this project (**available upon request**).

Stakeholder feedback led to several design modifications, including a realignment of the proposed road corridor to avoid direct impacts on densely populated residential areas and sensitive community sites. This realignment significantly reduced the number of households and assets that would have otherwise required physical or economic resettlement. In particular, efforts were made to avoid vulnerable communities and areas of cultural significance, demonstrating the project's commitment to minimizing adverse social impacts.

Through early engagement and responsive design, the project has significantly reduced potential social disruption and strengthened community support. The **ESIA** and accompanying **Resettlement Action Plan (RAP)** reflect these adjustments, ensuring that affected persons are compensated fairly and transparently, in line with national and international standards.

Ongoing engagement activities are planned throughout the project lifecycle, including the establishment of a **Grievance Redress Mechanism (GRM)** and regular community consultations to ensure concerns are addressed promptly and transparently.



RAP Surveys along the ROW of the project, March 2024



Inventory of Assets and PAPs by RAP Team



Scoping Workshop for all stakeholder groups in April 2024

Public Consultation event in April 2024

Socioeconomic survey in Iwesu, June 2024



Focus Group Discussion with community representatives, May 2024



Field Meetings with Host Community members, May 2024



Stakeholder Engagement with representatives of impacted communities in May 2024



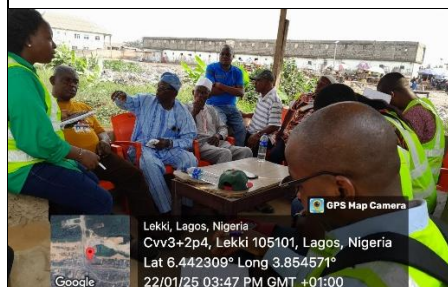
PAP Survey in Marwa, June 2024



Socioeconomic Survey in Iwerekun, June 2024



Survey at Akun Ajah in June 2024



Supplementary PAP Survey, February 2025



Supplementary PAP Survey, February 2025



Project Update Workshop with Stakeholders in February 2025



Public Event for Disclosure of Draft ESIA study in October 2024

4.1 Summary of Stakeholder Engagement Activities

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
1	<ul style="list-style-type: none"> Government Agencies Civil Society Organizations Media General Public 	ESIA Scoping – Public Consultation <ul style="list-style-type: none"> Inform stakeholders about the Lagos-Calabar Coastal Highway project and its proposed alignment. Present the scope and methodology of the Environmental and Social Impact Assessment (ESIA). Gather feedback and concerns from the public to inform the ESIA process Identify potential project impacts 	<ul style="list-style-type: none"> Scoping Workshop with presentation Focus Group Discussions Q&A sessions. Distribution of informational materials. Interactive discussions to solicit feedback. 	11 April 2024	Conference Room, Federal Ministry of Works, Tafawa Balewa Square (TBS), Lagos
2	Compensation Committee Members <ul style="list-style-type: none"> Federal Ministry of Works PAP Representatives State Officials Consultants 	Inaugural Compensation Committee <ul style="list-style-type: none"> To inaugurate the Compensation Committee for the Lagos-Calabar Coastal Highway Project and initiate coordination among members for compensation planning and implementation. Inaugural committee meeting chaired by the Federal Controller of Works; briefing on roles, responsibilities, and next steps 	<ul style="list-style-type: none"> Invitations shared by written to all community representatives and those that expressed interest during the ESIA Scoping Session Focused Group Discussions 	18 April 2024	Conference Room, Federal Ministry of Works, Tafawa Balewa Square (TBS), Lagos
3	<ul style="list-style-type: none"> Government Agencies Civil Society Organizations Media General Public 	Public Consultation <ul style="list-style-type: none"> Introduce the Lagos-Calabar Coastal Highway project and its objectives. Engage stakeholders on the Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) for the Lagos-Calabar Coastal Highway project Engage stakeholders in discussions to gather input and address concerns. Ensure transparency and foster collaboration among stakeholders. 	<ul style="list-style-type: none"> Workshop with presentations, slides and videos Focus Group Discussions Q&A sessions. Distribution of informational materials. Interactive discussions to solicit feedback. 	20 April 2024	Eko Hotel and Suites, Lagos, Nigeria
4	Project Affected People and communities along the AOI	Socioeconomic surveys and consultations <ul style="list-style-type: none"> Present the project scope and timeline, explain the ESIA process, and identify potential social, economic, and cultural impacts. Gather concerns, fears, and community recommendations. 	<ul style="list-style-type: none"> Socioeconomic surveys Household surveys Stratified sampling Individual consultations. Focus Group Discussions 	January – March 2024	Along the entire project alignment and in designated consultation zones within the AOI

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
		<ul style="list-style-type: none"> Conduct detailed surveys to develop the socioeconomic baseline Conduct site inspections for data collection 	<ul style="list-style-type: none"> Key Informant Interviews (KII) – Consultations with community leaders, government officials, and other stakeholders Direct observations 		
5	<ul style="list-style-type: none"> Project-Affected People (PAPs), Business Owners, Landowners, and Institutions Enumerators 	Enumeration and Valuation Survey for Compensation <ul style="list-style-type: none"> To enumerate and assess structures, crops, and unexhausted improvements for compensation along the first 12km of the LCCH alignment. To ensure transparent and GPS-based valuation in accordance with Nigerian and international standards. 	<ul style="list-style-type: none"> Individual consultations Reconnaissance survey with federal and contractor engineers Asset identification and valuation using GPS Structure measurement, coding, and photographic documentation One-on-one engagement with property owners Application of Depreciated Replacement Cost (DRC) method per Land Use Act and World Bank/IVSC standards 	2-13 May 2024	Frist 12km of the ROW
6	<ul style="list-style-type: none"> PAPs, Traditional Settlers, Estate Developers, and Community Members between Km 12+000 – Km 24+000 Enumerators 	Enumeration and Valuation Survey for Compensation <p>To identify and value affected structures, land, and unexhausted improvements for compensation purposes in alignment with national regulations and global valuation standards. To document conditions in dense swamp zones, traditional settlements, and gated estates.</p>	<ul style="list-style-type: none"> Individual consultations Reconnaissance survey with federal and contractor engineers Asset identification and valuation using GPS Structure measurement, coding, and photographic documentation One-on-one engagement with property owners Application of Depreciated Replacement Cost (DRC) method per Land Use Act and World Bank/IVSC standards 	May 11–17 June 10–12 July 22–23 October 4–5, November 4, 2024	Chainage Km 12+000 to Km 24+000
7	<ul style="list-style-type: none"> PAPs, Traditional Settlers, Estate Developers, and Community Members between Km 24+000 – Km 47+500 Enumerators 	Enumeration and Valuation Survey for Compensation <p>To identify and value affected structures, land, and unexhausted improvements for compensation purposes in alignment with national regulations and global valuation standards. To document conditions in dense swamp zones, traditional settlements, and gated estates.</p>	<ul style="list-style-type: none"> Individual consultations Reconnaissance survey with federal and contractor engineers Asset identification and valuation using GPS Structure measurement, coding, and photographic documentation 	August 2024	Chainage Km 24+000 to Km 47+500

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
			<ul style="list-style-type: none"> One-on-one engagement with property owners Application of Depreciated Replacement Cost (DRC) method per Land Use Act and World Bank/IVSC standards 		
8	<ul style="list-style-type: none"> Local Communities Hitech PMs and Site Admins 	Community Engagements To foster transparency, promote early dialogue, and establish sustainable communication channels with local communities along the project corridor. <ul style="list-style-type: none"> Provide updates on the Lagos-Calabar Coastal Highway (LCCH) Section 1 project scope, timeline, and impacts. Answer questions and manage expectations regarding compensation, construction activities, and environmental and social safeguards. Initiate trust-building measures to ensure smooth implementation of the project and avoid security tensions or misinformation. 	<ul style="list-style-type: none"> Hitech formally introduces its team, including key personnel involved in site coordination Preliminary discussions with local stakeholders are held regarding potential job opportunities for skilled and unskilled laborers. Hitech aligns with traditional authorities to avoid misunderstandings or resistance, particularly concerning right-of-way access and resettlement. Such outreach also helps in reducing potential security risks, a standard practice among Nigerian contractors working in sensitive areas. 	Ongoing and further dates to be arranged once alignment is clear 23 May 2024 29 October 2024	Community Town Halls
9	<ul style="list-style-type: none"> PAPs Communities Along the ROW 	Project Update and Community Feedback session To provide project updates, verify affected persons and assets, clarify alignment changes, explain compensation procedures, and gather feedback on resettlement-related issues. <ul style="list-style-type: none"> Notify Project-Affected Persons (PAPs) about compensation and resettlement eligibility Collect and verify supporting documentation for compensation (e.g., ID, property proof) Clarify alignment adjustments and updated project footprint impacts Address grievances and ensure transparency in the resettlement process Maintain direct engagement with affected communities and property owners Fulfill national and international requirements for stakeholder consultation and disclosure 	<ul style="list-style-type: none"> One-on-one consultations Focus Group Discussions Document verification Public notices and in-person clarification Alignment updates and ROW mapping reviews 	<ul style="list-style-type: none"> 18 Apr 2024 May 17, 2024 5 June 2024 15 Jul 2024 16 Jul 2024 8 Aug 2024 10 Sep 2024 6Nov 2024 7 Nov 2024 26 Nov 2024 	Federal Ministry of Works, Tafawa Balewa Square, Lagos. Nigeria

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
10	Federal Ministry of Works (FMWorks) and Other Relevant Government Agencies	Coordination Meetings To ensure continuous alignment on project planning, coordination, resettlement implementation, technical approvals, RAP, and stakeholder engagement progress. These meetings aim to jointly resolve operational issues, assess alignment changes, and maintain compliance with national and lender standards. <ul style="list-style-type: none"> • Technical planning sessions • Joint review of compensation status, design updates, and ESMP/ESIA milestones • Structured meetings with government representatives. • Keep agencies informed about project progress. • Collaborate on project milestones and approvals. 	<ul style="list-style-type: none"> • Regular planned meetings • 1 to 1 discussions • Ad hoc regulatory briefings and document validations 	Ongoing/ at least monthly	Primarily at FMWorks Headquarters, Abuja or Hitech HQ in Eko Atlantic
11	Civil Society Organizations (CSOs) including environmental NGOs, human rights groups, women's organizations, and social development advocates	To involve CSOs in reviewing and monitoring environmental and social safeguards, supporting community-based development, ensuring inclusion of vulnerable groups, and enhancing transparency in project implementation. Their participation helps inform independent oversight, build local trust, and strengthen adaptive management of impacts. <ul style="list-style-type: none"> • Discuss environmental impact assessments, mitigation, and monitoring. • Collaboration on community awareness, grievance resolution, and social auditing • Participatory monitoring of environmental and livelihood restoration measures • Joint review of RAP/LRP strategies, especially for at-risk populations • Gather CSO input on specific topics. • Partner with CSOs for community development. 	<ul style="list-style-type: none"> • Focus group discussions on gender, displacement, and community well-being • Workshops • 1 to 1 meetings and consultations • Public briefings to promote accountability • Additional sessions to be held in communities and virtual platforms as needed 	Initial engagement on May 17, 2024, with follow-up sessions planned throughout the project lifecycle	FMWorks, Tafawa Balewa Square, Lagos. Nigeria
12	Media	Disseminate accurate project information and manage public perception.	<ul style="list-style-type: none"> • Share project updates and milestones. • Provide insights to journalists. • Regular communication with media outlets. 	Ongoing	TV Stations and News and News from other media and

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
13	General Public	Engage with the broader public to create awareness, manage expectations, and address concerns	<ul style="list-style-type: none"> • Use billboards, radio, and social media to inform the public about the project's benefits, timelines, and potential disruptions. • Organize town hall sessions where residents can voice their opinions and ask questions. • Set up hotlines, email addresses, or online forms for public inquiries and feedback. Conduct workshops on road safety, environmental impact, and project updates. 	Ongoing as part of general consultation	TV Stations and News from other media and face to face
14	<ul style="list-style-type: none"> • Federal Ministry of Environment • ESIA Review Panel • Federal Ministry of Works • Local Government Representatives • Community Stakeholders • Civil Society Organizations 	ESIA Panel Review <ul style="list-style-type: none"> • Review and assess the draft Environmental and Social Impact Assessment (ESIA) report for the Lagos-Calabar Coastal Highway project. • Address identified deficiencies and areas of concern within the ESIA draft. • Engage with stakeholders to gather feedback and ensure that environmental and social considerations are adequately integrated into the project planning • Present the E&S optimization approach in the ROW alignment to reduce impacts 	<ul style="list-style-type: none"> • Technical Presentation • Public participation to all stakeholders • Technical panel review for the ESIA and RAP for section 1 • Q&A session with participants 	29 Oct 2024	Eko Hotel, Lagos, Nigeria.
15	<ul style="list-style-type: none"> • International Stakeholders • Media Agency 	Monitor and utilize international media coverage (e.g., Reuters, BBC Africa, Al Jazeera, Bloomberg) and industry-specific publications (e.g., Infrastructure Journal, African Business) to track how the Lagos-Calabar Coastal Highway project is being perceived globally. Use these insights to guide public relations strategy, address reputational risks, and ensure that international stakeholders—including investors, donors, and development finance institutions—receive accurate, timely, and balanced information about the project's objectives, environmental and social safeguards, and progress.	<ul style="list-style-type: none"> • Diplomatic Channels: Collaborate with relevant embassies and consulates to keep international stakeholders informed. • International Conferences and Forums: Participate in global infrastructure events to share project progress and seek partnerships. • Project Updates on International Platforms: Use international media outlets, industry journals, and online platforms to disseminate information. 	On weekly basis	<ul style="list-style-type: none"> • Virtual meetings • international conferences • embassy briefings • media platforms

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
			<ul style="list-style-type: none"> Bilateral Agreements: If applicable, negotiate agreements with neighbouring countries to ensure smooth cross-border transportation. 		
16	<ul style="list-style-type: none"> General Public, PAPs Hitech FMWorks 	Project Update and Community Feedback session To formally engage with stakeholders and community leaders along Section 1 of the Lagos-Calabar Coastal Highway. The Honourable Minister of Works will present updates, address community concerns, and discuss project alignment, compensation, and expectations.	<ul style="list-style-type: none"> Public meeting with presentations and videos Q&A session, feedback from participants 	23 February 2025	Eko Hotels, Lagos, Nigeria
17	<ul style="list-style-type: none"> Community representatives Vulnerable groups PAPs Community populations Hitech 	Expanded Community Engagement and GRM Establishment Following earlier, limited engagements by Hitech? primarily focused around construction yards-adjacent communities, there was a recognized need to systematically extend outreach to all affected settlements along the Right-of-Way. The previous interactions, while helpful in setting, lacked continuity. This prompted a more comprehensive initiative led by the Community Relations Manager (CRM) to build stronger, lasting communication channels and proactively manage community expectations. <ul style="list-style-type: none"> Establish the project GRM in each of the 19 identified communities along the project corridor. Strengthen community-company relationships through inclusive and transparent dialogue. Gather community needs and aspirations to inform the company's social investment and community development planning. Promote mutual accountability through the signing of Memorandums of Understanding (MOUs). 	<ul style="list-style-type: none"> Focus Group Discussions Public Meetings Introduction of the GRM framework to local leaders and community members. MOUs Signed with Communities: Through participatory dialogues, the CRM team gathered input on priority community needs, such as youth training, school renovations, health initiatives, or water access. Establishment of Communication Channels 	17 February to 14 March 2025	At every community town hall/palace – 19 communities of section 1
18	<ul style="list-style-type: none"> PAPs Members of each of the 19 communities 	Supplementary socioeconomic survey and PAPs identification To develop detailed socioeconomic profiles to support the Livelihood Restoration Plan (LRP), identify	<ul style="list-style-type: none"> One-on-one structured interviews with PAPs using validated survey tools 	20-25 January 2025	Within each of the 19 communities from Eko Atlantic

No	Group of Stakeholders	Objective	Engagement Methods	Date	Venue
		<p>physically and economically displaced persons not compensated under the government-led process, and assess community needs and post-clearance livelihood impacts.</p> <ul style="list-style-type: none"> Visual documentation of cleared zones and economic activities Identification of priority needs for LRP design and vulnerability analysis 	<ul style="list-style-type: none"> Focus group discussions (FGDs) with elders, youth, women, and informal workers in each community 		to Eleko (e.g., Jakande, Lafiaji, Sangotedo, Okun-Ajah, Eleko, etc.)
19	<ul style="list-style-type: none"> PAPs and community members Hitech CRM Assessors Government Representatives Press & Media (Beach TV + others) Bouncers/Security 	<p>Vocational Skills Pre-Screening</p> <p>To pre-screen community members for vocational training opportunities under Hitech's Livelihood Restoration Program</p>	<ul style="list-style-type: none"> training opportunities under Hitech's Livelihood Restoration Program Skills assessment across technical, livelihood, and soft skills Demonstrations by vocational experts MOUs with communities Media coverage to enhance transparency Government observation to validate process 	8 March 2025	Eti-Osa Local Government Secretariat Skill Acquisition Centre

5 Impacts and Mitigation Measures

5.1 Construction

N	Aspect	Potential Impact	Impact Significance	Mitigation Measures (Summary)	Residual Impact
1	Soil, Water & Coastal Morphology	Soil contamination, erosion, flooding, alteration of shoreline and marine habitats	Moderate	Controlled storage of materials and fuel, erosion controls, sustainable dredging, vegetation planting, and monitoring	Minor to Not Significant
2	Marine Ecosystems & Hydrology	Habitat destruction, water pollution, sediment disturbance	Moderate	Ecosystem-based planning, silt curtains, restoration, pollution control, stakeholder engagement	Minor
3	Air Quality	Dust, emissions, and impact on respiratory health	Moderate	Dust suppression, vehicle emissions control, community grievance mechanism, air quality monitoring	Not Significant
4	Noise & Vibration	Disturbance to communities, workers, and structures	Moderate	Noise barriers, restricted hours, quieter equipment, community communication, monitoring	Minor to Not Significant
5	Waste Management	Environmental and community risks from construction and hazardous waste	Moderate	Waste segregation, recycling, safe disposal, hygiene facilities, community grievance mechanism	Minor
6	Biodiversity	Disturbance to habitats, marine life, birds, and potential spread of invasive species	Minor to Moderate	Buffer zones, restoration programs, biosecurity protocols, species monitoring, habitat enhancement	Not Significant
7	Water Resources	Pollution from spills, increased turbidity, groundwater contamination	Moderate	Spill control, emergency response, monitoring, refueling protocols, chemical handling and containment	Minor
8	Traffic and Transport	Accidents, congestion, community disruption	Moderate	Traffic management plan, speed controls, driver training, safe walkways, engagement with communities	Moderate
9	Occupational Health & Safety	Worker accidents, hazardous exposure, physical risks	Moderate	PPE use, training, monitoring, emergency response, hazard prevention, health protocols	Not Significant
10	Community Health & Safety	Public exposure to hazards, disease spread, road safety	Minor	Signage, air/dust control, community health education, emergency planning, hygiene promotion	Not Significant
11	Workers' Rights	Risk of labor exploitation or unsafe conditions	Moderate	Fair labor practices, HR management, grievance mechanisms, no child/forced labor, safety training	Minor
12	Socio-economic Opportunity	Job creation, skills development, local procurement	Positive	Local hiring, SME engagement, procurement from local vendors, training and upskilling	Positive

N	Aspect	Potential Impact	Impact Significance	Mitigation Measures (Summary)	Residual Impact
13	Population Influx	Pressure on services, cultural tensions, inequality	Moderate	Access to healthcare, social integration programs, vocational training for both migrants and host communities	Not Significant

5.2 Operations Phase

N	Aspect	Potential Impact	Impact Magnitude	Mitigation Measures (Summary)	Residual Impact
1	Soil, Surface and Water Quality	Fuel spills may contaminate soil and groundwater	Minor	Spill prevention protocols, containment systems, regular inspections	Not Significant
2	Waste	Improper waste disposal may degrade soil and introduce heavy metals or pesticides	Minor	Regulated disposal, soil restoration, recycling, replanting, community grievance mechanism	Not Significant
3	Air Pollution	Emissions from trucks and machinery can deteriorate air quality	Moderate	Green buffer zones, low-emission technologies, air quality monitoring	Not Significant
4	Noise and Vibrations	Operational noise may disturb nearby residents and cause stress	Moderate	Sound barriers, timing controls, community involvement	Not Significant
5	Climate Change Impact	Road vulnerable to sea level rise, storm surges, and extreme weather	Moderate	Climate-resilient design, evacuation planning, early warning systems	Not Significant
6	Traffic Congestion	Overloaded infrastructure and intersections	Moderate	Infrastructure upgrades, coordinated traffic planning, regular maintenance	Not Significant
7	Social Disruption	Ignored community concerns may lead to unrest or protests	Moderate	Active community engagement and response to local business needs	Not Significant
8	Health Risks	Air pollution and hazardous material exposure may affect workers and residents	Moderate	Water sprays, regular health checks	Not Significant
9	Chemical Hazards	Handling hazardous materials and contaminated soils pose health risks	Moderate	Regular monitoring, use of cleaner fuels and emission controls	Not Significant
10	Human Rights Impacts	Risks to workers' rights, land rights, and community relations	Moderate	Stakeholder engagement, legal compliance, impact monitoring	Not Significant

N	Aspect	Potential Impact	Impact Magnitude	Mitigation Measures (Summary)	Residual Impact
11	Road O&M Sustainability	Weak post-handover capacity may lead to environmental and safety risks	Moderate	Capacity-building program, structured systems, training for ministry staff	Not Significant
12	Maintenance Oversight	Poor supervision may cause infrastructure degradation and environmental non-compliance	Moderate	Institutional strengthening, O&M training, audits, sustainable sourcing, predictive maintenance	Not Significant

5.3 Decommissioning

N	Aspect	Potential Impact	Impact Magnitude	Mitigation Measures (Summary)	Residual Impact
1	Soil, Surface and Water Quality	Turbidity and sediment runoff from site clean-up and equipment removal	Minor	Use silt curtains, sediment traps, vegetation cover, and proper sediment disposal	Minor
2	Saline Water Intrusion	Dewatering could lead to saltwater intrusion into freshwater aquifers	Minor	Maintain natural groundwater flows, manage effluent, monitor salinity, and promote recharge	Minor
3	Soil Erosion and Runoff	Bare soil after structure removal increases runoff and pollutant mobilization	Minor	Stabilize soil with vegetation, grade surfaces, build sediment basins	Not Significant
4	Surface Runoff and Pollution	Pollutants mobilized by runoff during decommissioning activities	Minor	Use erosion controls, proper hazardous material handling, routine maintenance, and water quality monitoring	Minor
5	Social	Disruption to roads, local businesses, and dust impacts on nearby residents	Minor	Schedule activities to reduce disruption, use dust suppression, notify communities	Not Significant
6	Occupational Health and Safety	Risks from physical, chemical, and confined space hazards	Not Significant	Provide PPE, training, safe handling, and dust/noise protection	Not Significant
7	Socio-Economic Impacts	Job losses or vendor income disruption during demobilization	Minor	Communicate job changes, offer retraining and redeployment, support vendors	Not Significant
8	Decommissioning & Transition of Assets	Poor planning could lead to safety and environmental risks from stranded or unmanaged road infrastructure	Moderate	Develop decommissioning plan, train Ministry staff, define closure criteria	Not Significant

6 Monitoring, Reporting and Auditing

To ensure that environmental and social (E&S) commitments are fully implemented throughout the project lifecycle, a robust system of monitoring, reporting, and auditing has been established.

Monthly Monitoring is led by Hitech's HSE Unit and includes progress on mitigation measures, incident and grievance tracking, training logs, stakeholder engagement activities, and performance indicators. Findings are compiled into a **Monthly HSE Performance Report**, shared with NESREA and internal leadership.

Quarterly Internal Audits are conducted by the HSE Manager, in collaboration with project and department managers. These audits assess the effective implementation of environmental and social management plans and track progress on previous recommendations, including those from Independent E&S Consultants (IESC).

Independent Monitoring by Lenders and IESC is conducted at least twice a year. These visits review self-monitoring reports and assess the project's compliance with IFC Performance Standards and Equator Principles. Outcomes are documented in formal IESC Monitoring Visit Reports, with required corrective actions.

An **Audit Program** is also embedded in the ESMP. Audits are conducted quarterly and on an ad hoc basis as needed, either internally or through third-party experts. Each audit is planned in advance, with a clear scope based on risk, regulatory obligations, and past findings. Audit results are classified into Non-Conformities (requiring corrective action), Improvement Opportunities, or Best Practices. All findings are tracked digitally, with evidence reviewed to ensure timely and meaningful resolution. Together, these systems ensure transparency, continual improvement, and accountability in managing environmental and social risks and impacts throughout project implementation and decommissioning.