ENVIRONMENTAL SCOPING REPORT FOR THE FOLLOWING PROJECT:

PROPOSED ECO-TOURISM CAMPSITE WITHIN MAYUNI CONSERVANCY (MASAMBALA ISLAND) ZAMBEZI REGION

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1. Executive Summary

The proposed Masambala Tourism Project entails the development of a low-impact eco-tourism facility within the Mayuni Conservancy and Bwabwata National Park in the Zambezi Region of Namibia. The project is centered on Masambala Island along the Kwando River and aims to establish a small, semi-permanent tented camp complemented by limited campsites. The facilities will be designed to blend into the natural landscape and to promote eco-tourism activities such as guided game drives, birdwatching, canoeing, boating, walking safaris, and catch-and-release fishing. Services will be supported through a combination of solar power and grid supply, potable water abstraction and treatment from the Kwando River supplemented by borehole water, and environmentally sound waste management systems, including bio-digesters and strict separation with off-site disposal.

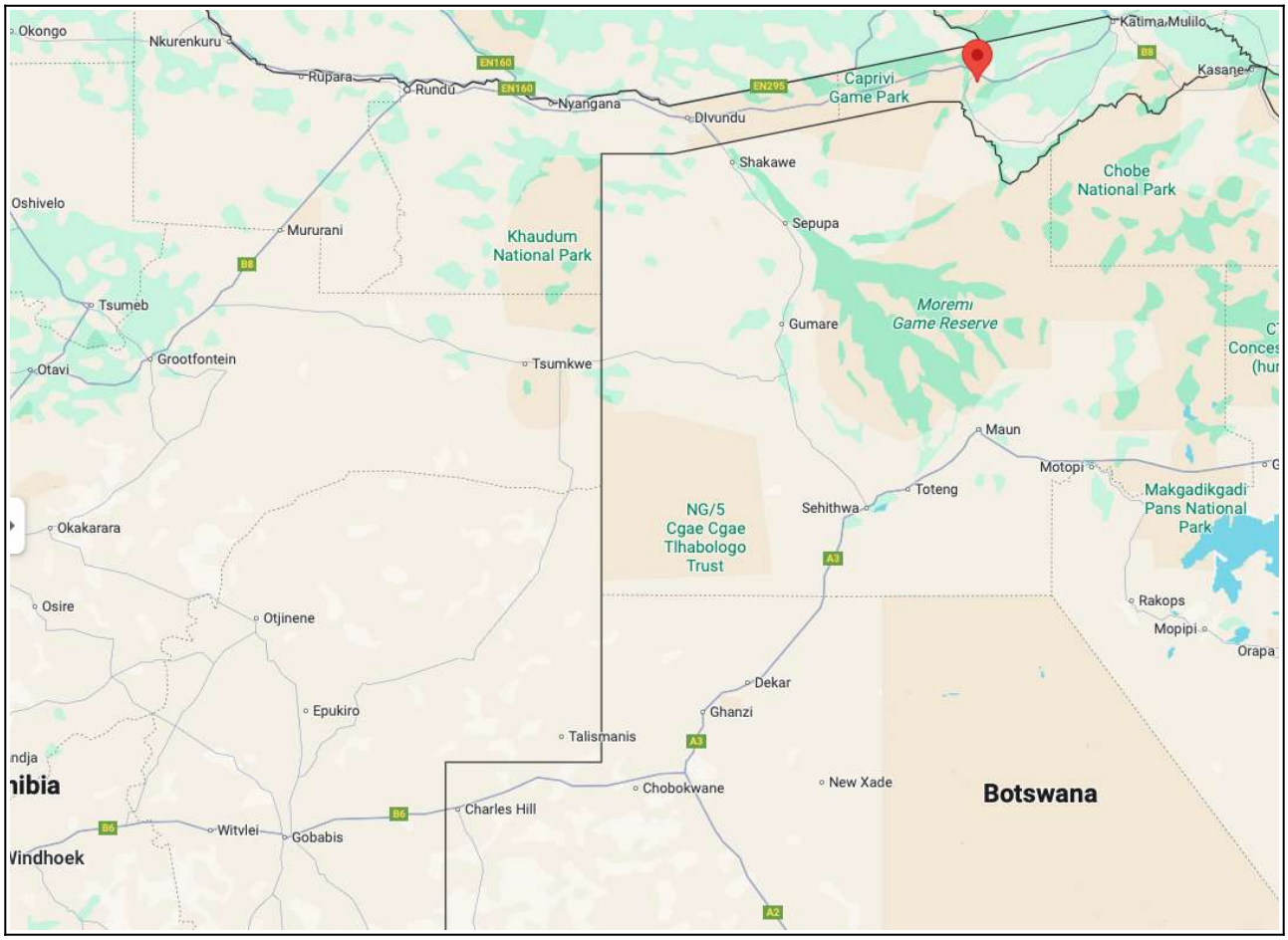

Figure 1: Location of the proposed project Google Maps.

The receiving environment is ecologically sensitive, encompassing the floodplains of the Kwando River, riparian forests, and Baikiaea-dominated sandveld woodlands. These habitats provide refuge to a wide range of species of conservation concern, including elephants, hippos, sitatunga, and several Important Bird Area (IBA) avifauna. Key environmental considerations include potential impacts on groundwater, surface water quality, vegetation clearance, wildlife disturbance, and the seasonal flood pulse that sustains the ecosystem. Socially, the project is aligned with community-based natural resource management (CBNRM) principles and is expected to generate tangible

benefits through local employment, skills development, and procurement opportunities, while strengthening the Mayuni Conservancy's revenue base.

The legal framework governing the project is provided by the Environmental Management Act (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations (2012), complemented by other relevant legislation, including the Water Resources Management Act, the Nature Conservation Ordinance, and the Public and Environmental Health Act. The scoping process has identified both potential negative impacts, such as habitat disturbance, pollution risks, and visitor pressure, and positive impacts, such as enhanced tourism, community benefits, and environmental awareness. Through the implementation of a comprehensive Environmental and Social Management Plan (ESMP), including strict buffers to water bodies, proper sewage management, speed and noise controls, spill prevention, and heritage chance-find procedures, most negative impacts can be reduced from high or moderate significance to minor or acceptable levels.

Overall, the scoping assessment concludes that the Masambala Tourism Project is environmentally acceptable and socio-economically beneficial, provided that mitigation and monitoring measures are fully implemented. With proper environmental governance, the project will contribute to sustainable tourism development in the Zambezi Region and strengthen the integration of conservation with community livelihoods.

2. Introduction

This Environmental Impact Assessment (EIA) has been prepared to evaluate the potential environmental and social impacts of a proposed eco-tourism campsite on Masambala Island within the Mayuni Conservancy in the Zambezi Region of Namibia. The purpose of this assessment is to ensure that the development complies with Namibia's Environmental Management Act (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 of 2012), as well as other relevant sectoral legislation. These include the Water Act for river abstraction, the Nature Conservation Ordinance for biodiversity protection, the Labour Act for employment standards, and Namibia Tourism Board requirements for tourism facilities. The project proponent is JTH Safaris CC, and the appointed Environmental Assessment Practitioner (EAP) is Rian du Toit (Enviro Management Consultants Namibia).

3. Project Description

The proposed eco-tourism campsite is located on Masambala Island within the Mayuni Conservancy in the Zambezi Region of Namibia. There are currently some tented camps and camping facilities at the site but the plan is to expand on the existing infrastructure. This communally managed camp forms part of the Kavango–Zambezi Transfrontier Conservation Area (KAZA TFCA), a vast conservation landscape spanning five Southern African countries. The Mayuni Conservancy is well known for its rich biodiversity, pristine riverine habitats, and vibrant cultural heritage. Masambala Island itself lies within or adjacent to the Kwando River floodplain, offering panoramic views, seasonal flood dynamics, and high wildlife visibility. The selected site is carefully positioned to minimise environmental disturbance while maximising guest experience, with consideration given to accessibility, flood risk, vegetation cover, and visual integration into the natural surroundings.

Figure 2: An example of the existing tented accommodation,

The development will offer a low-impact, high-quality eco-tourism experience combining semi-permanent tented accommodation with self-catering camping facilities. Five spacious safari-style tents will be constructed, each with comfortable furnishings, an en-suite or dedicated private bathroom, and a veranda overlooking the river. In addition, three to five demarcated self-catering campsites will cater to independent travelers, providing defined camping areas for tents or vehicles, a braai/fireplace facility, and access to shared ablution blocks. Communal infrastructure will include ablution facilities for campers with water-efficient flush toilets, solar-heated showers, and wash basins, a small reception and information point that may also serve as a curio display area for locally made crafts, and a dining and lounge lapa for guests in the semi-permanent tents. Staff accommodation for up to eight employees will be located discreetly away from guest areas and equipped with appropriate sanitation facilities.

Figure 3: The road to the project as well as the Power line to the existing site.

Power for the campsite are drawn from the NORED electricity grid if feasible and available, supplemented by solar power systems for water heating and backup generation to reduce reliance on fossil fuels. Water for general use is abstracted from the Kwando River under permit and treated through filtration and purification to meet health standards, while a supplementary borehole on Masambala Island provides potable drinking water. Water conservation is actively promoted through the use of low-flow fixtures and, where practical, grey water recycling.

Waste management follow a comprehensive strategy of separation, reuse, recycling, and safe disposal. Organic waste is composted, recyclables such as glass, plastic, and metal are recovered, and non-recyclable waste is transported to approved disposal sites. Wastewater from ablutions and kitchens are treated through eco-friendly septic systems or bio-digesters in compliance with Namibia's General Effluent Standards (GN 363 of 2012).

The planned expansion of the eco-tourism offerings will be complemented by a variety of nature-based activities, all conducted under strict environmental guidelines and led by trained guides. Motorised boat game rides along the Kwando River will provide opportunities to view elephants, hippos, crocodiles, and a range of antelope and bird species. Traditional mukolo canoe excursions will offer a low-impact, quiet way to explore the riverine environment. Guided game drives will be offered into the nearby Nkasa Rupara and Mudumu National Parks, while birdwatching excursions will cater to the Zambezi Region's exceptional avifauna. Additional activities will include guided nature walks within the conservancy, focusing on local ecology and cultural plant uses, and strictly catch-and-release fishing trips to maintain sustainable fish populations.

A strong community benefit component will underpin the project's operations. Employment will prioritise members of the Mayuni Conservancy wherever possible, from management and guiding positions to campsite attendants and maintenance staff. Comprehensive training programs will be provided to enhance hospitality, guiding, environmental management, and maintenance skills, creating long-term career opportunities. A transparent revenue-sharing agreement will be established with the Mayuni Conservancy to channel direct financial benefits into community development and conservation projects. Goods and services will be sourced locally wherever feasible, further contributing to the regional economy.

From inception, the design and operation of the Masambala campsite will adhere to a low-impact, conservation-first approach. Sensitive habitats will be avoided during site selection and layout. Resource management will prioritise energy efficiency, water conservation, and responsible waste handling. Wildlife-friendly operational practices will be strictly enforced, visitor behavior guidelines will be implemented, and the entire facility will operate under a "leave no trace" philosophy. In this way, the project aims to deliver a sustainable tourism product that enhances conservation outcomes and maximises socio-economic benefits for the Mayuni Conservancy and its members.

4. Legislative and Policy Framework

The proposed eco-tourism campsite on Masambala Island will be developed in full compliance with Namibia's environmental and tourism-related legal framework. The principal governing law is the Environmental Management Act, 2007 (Act No. 7 of 2007), which provides the legal basis for environmental protection, sustainable development, and the requirement to obtain an Environmental Clearance Certificate (ECC) prior to the commencement of any listed activities.

The associated Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012) detail the procedures for undertaking an EIA, including the need for public participation, stakeholder engagement, and formal submission to the Ministry of Environment, Forestry and Tourism (MEFT) (Refer to Figure 4).

Given the location within a sensitive riparian and floodplain environment, the Water Act, 1956 (Act No. 54 of 1956), although largely superseded by the Water Resources Management Act, 2013 (Act No. 11 of 2013, not yet fully in force), remains applicable. The project will require authorisation from the Ministry of Agriculture, Water and Land Reform (MAWLR) for the abstraction of water from the Kwando River and for the operation of the existing borehole. Water quality standards as prescribed by national guidelines must be adhered to.

The National Heritage Act, 2004 (Act No.27 of 2004) requires that any disturbance to archaeological or cultural heritage sites (such as graves, sacred groves, or historic fishing structures) must be formally cleared with the National Heritage Council of Namibia.

Biodiversity conservation is regulated under the Nature Conservation Ordinance, 1975 (Ordinance No. 4 of 1975), which governs the protection of wildlife and vegetation. Since the project is situated within the Mayuni Conservancy, a registered communal conservancy under Namibia's Community-Based Natural Resource Management (CBNRM)framework, it must align with conservancy management plans and ensure that tourism activities support conservation objectives.

Tourism operations are also guided by the Namibia Tourism Board Act, 2000 (Act No. 21 of 2000), which requires the registration of all tourism accommodation establishments and adherence to minimum standards. This will apply to both the semi-permanent tented accommodation and the self-catering campsites.

Waste management and pollution control fall under the Public and Environmental Health Act, 2015 (Act No. 1 of 2015), which mandates the safe handling, treatment, and disposal of solid and liquid waste to prevent environmental and public health hazards.

For sensitive floodplain settings, waste management must explicitly comply with the General Effluent Standards (GN 363 of 2012), which are referenced later in mitigation.

In addition, the Atmospheric Pollution Prevention Ordinance, 1976 provides requirements for preventing and mitigating dust and smoke emissions, which may be relevant during construction activities.

Any clearing of protected tree species (e.g. Baikiaea plurijuga, Pterocarpus angolensis) requires a Forestry Permit from MEFT's Directorate of Forestry. This should be clearly flagged as a listed activity under GN 29 of 2012 (Forest Act, 2001 (Act No. 12 of 2001)).

Employment practices for staff will comply with the Labour Act, 2007 (Act No. 11 of 2007), ensuring fair working conditions, adherence to occupational health and safety standards, and prioritisation of local employment, especially from the Mayuni Conservancy.

Because the Zambezi Region lies within the Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA), regional conservation agreements and tourism cooperation principles may also influence operational best practices, especially regarding cross-border tourism marketing and wildlife management.

Finally, the project will take into account relevant international conventions ratified by Namibia, such as the Convention on Biological Diversity (CBD), the Ramsar Convention on Wetlands of International Importance (relevant to the Kwando River floodplains), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Table 1: Legislation and Policy Compliance Matrix – Masambala Island Eco-Tourism Campsite

No.	Legislation / Policy	Relevant Provisions	Project Compliance Measures
1	**Environmental Management Act, 2007 (Act No. 7 of 2007)**	Requires EIA for listed activities; promotes sustainable development; mandates ECC before commencement.	EIA conducted by a registered EAP; ECC to be obtained from MEFT prior to construction; mitigation and monitoring measures to be implemented via ESMP.
2	**EIA Regulations, 2012 (GN 30)**	Specifies procedures for public participation, information disclosure, and impact assessment.	Full stakeholder engagement process undertaken; BID distributed; public notices placed; issues and responses report compiled.
3	**Water Act, 1956 (Act No. 54 of 1956)**	Regulates abstraction and use of surface and groundwater; requires permits.	Apply for water abstraction permit from MAWLR for Kwando River and borehole; install water meters; conduct water quality testing.
4	**Nature Conservation Ordinance, 1975**	Protection of wildlife and vegetation; regulates activities within conservancies.	Align project with Mayuni Conservancy management plan; enforce wildlife-friendly operational practices; avoid habitat disturbance.
5	**Namibia Tourism Board Act, 2000**	Requires registration of tourism accommodation establishments and compliance with minimum standards.	Register campsite with NTB; design facilities to meet or exceed minimum accommodation and service standards.
6	**Public and Environmental Health Act, 2015**	Governs waste management, sanitation, and prevention of environmental health hazards.	Implement waste segregation, composting, and off-site disposal; provide safe ablutions; maintain hygiene standards.
7	**Atmospheric Pollution Prevention Ordinance, 1976**	Control of dust, smoke, and emissions.	Apply dust suppression during construction; avoid open burning of waste; ensure generators comply with emission standards.
8	**Labour Act, 2007**	Fair labour practices; occupational health and safety.	Prioritise employment from Mayuni Conservancy; provide safe working conditions; comply with Namibian OHS standards.
9	**CBNRM Policy**	Guides tourism development in communal conservancies; ensures benefits to local communities.	Revenue sharing with Mayuni Conservancy; employ local guides; source goods and services locally where possible.
10	**KAZA TFCA Treaty**	Promotes conservation and tourism cooperation across borders.	Ensure operations support conservation objectives; promote cross-border eco-tourism packages where feasible.
11	**Convention on**	Conservation and sustainable	Protect sensitive habitats; maintain

	Biological Diversity (CBD)	use of biodiversity.	native vegetation; avoid introduction of invasive species.
12	**Ramsar Convention**	Protects wetlands of international importance.	Implement measures to avoid pollution of Kwando River; maintain buffer zones along the riverbank.
13	**CITES**	Controls trade in endangered species.	Prohibit sale or display of products from endangered species; train staff in CITES awareness.

In accordance with the Environmental Management Act (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations (Government Notice No. 29 of 2012), certain project activities are classified as listed activities that may significantly affect the environment. The proposed Masambala Tourism Project falls within this regulatory framework and therefore requires an Environmental Clearance Certificate (ECC) from the Ministry of Environment, Forestry and Tourism (MEFT) prior to commencement. In addition, related sectoral legislation such as the Water Resources Management Act, the Forest Act, and the Public and Environmental Health Act impose further permitting obligations. The table below outlines the specific listed activities triggered by the project, the applicable legislation, the responsible authority, and the corresponding permits or approvals required to ensure full legal compliance.

Table 2: Legal Compliance Requirements for the Masambala Tourism Project

Listed Activity (GN 29 of 2012)	Trigger in Project	Relevant Law / Regulation	Authority	Permit / Approval Required
Activity 6: Tourism development – The construction and operation of resorts, lodges, camping and caravan sites	Establishment of tented camp and camping facilities on Masambala Island	Environmental Management Act (No. 7 of 2007) & EIA Regulations (GN 29 of 2012)	Ministry of Environment, Forestry and Tourism (MEFT)	Environmental Clearance Certificate (ECC)
Activity 8.1: Forestry related – Clearance of forest areas, deforestation, timber harvesting, afforestation, reforestation	Vegetation clearing for camp infrastructure and access	Forest Act (No. 12 of 2001) & EMA 2007	Directorate of Forestry (MEFT)	Forestry Permit (for tree/vegetation removal)
Activity 8.1: Water use and resource developments – Abstraction of ground or surface water for industrial or commercial purposes	Abstraction of Kwando River water for potable supply and supplementary borehole water	Water Resources Management Act (No. 11 of 2013)	Department of Water Affairs (MAWLR)	Water Abstraction and Use Permit
Activity 11.2: Infrastructure – Construction	Development of facilities on	EMA 2007; Nature	MEFT – Directorate of	ECC; Park entry/operating

Listed Activity (GN 29 of 2012)	Trigger in Project	Relevant Law / Regulation	Authority	Permit / Approval Required
of infrastructure within or close to national parks, wetlands, floodplains, watercourses and water bodies	Kwando River floodplain, inside Bwabwata National Park and Mayuni Conservancy	Conservation Ordinance (No. 4 of 1975)	Parks and Wildlife Management	approval

The Masambala Tourism Project clearly triggers several listed activities under the Environmental Impact Assessment Regulations of 2012, necessitating an ECC from the Ministry of Environment, Forestry and Tourism. While the ECC will serve as the overarching approval for the project, certain sector-specific permits—such as forestry clearance, water abstraction, and waste management authorisations—must be secured concurrently to ensure compliance with Namibian law.

It is therefore essential that the project proponent maintains a permit tracker and implements ongoing compliance monitoring throughout the planning, construction, and operational phases. This approach will not only satisfy statutory requirements but also provide assurance to stakeholders that environmental and social safeguards are being fully respected.

The following flow chart indicates the required process for the ECC application from MEFT:

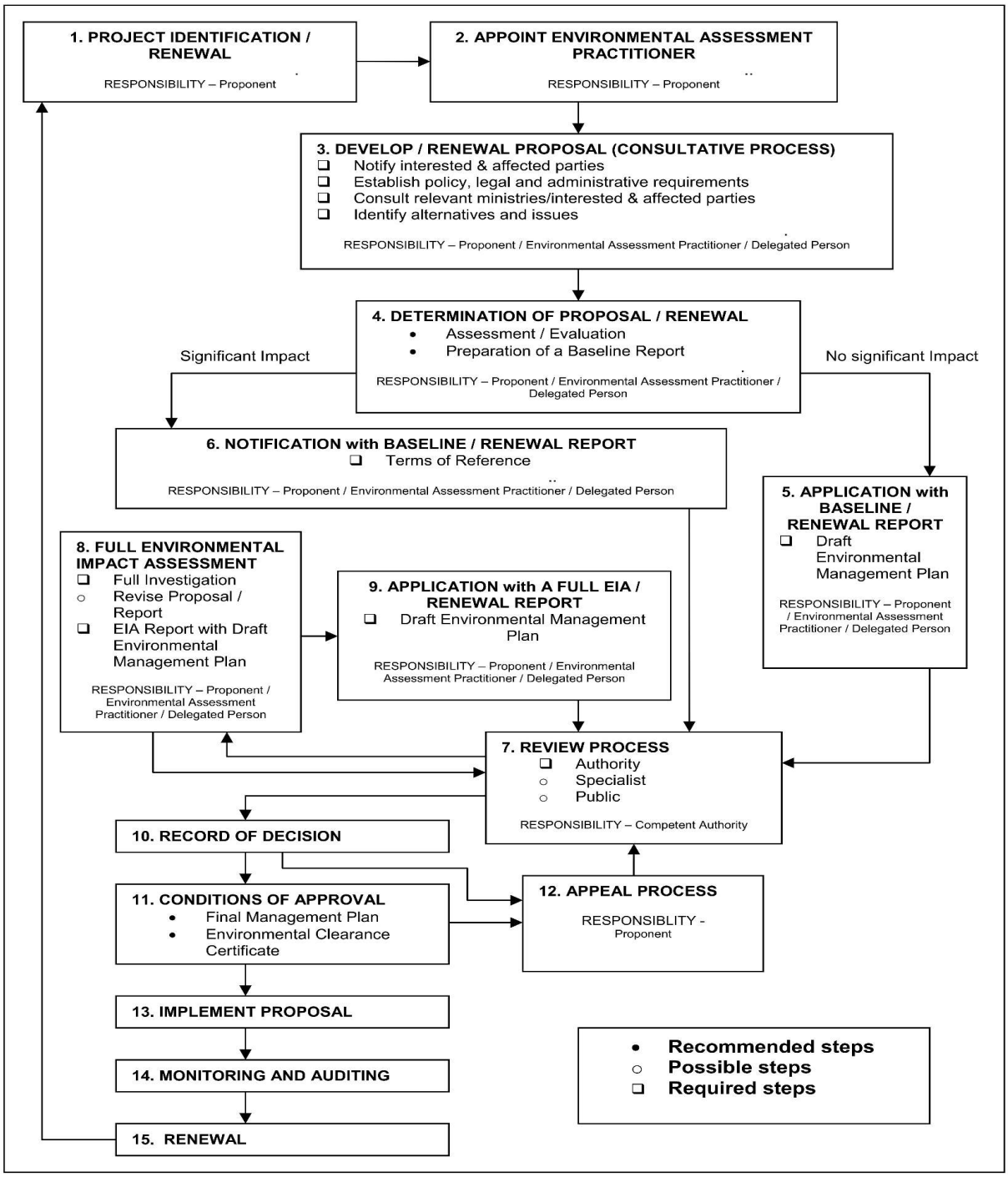

Figure 4: A flowchart indicating the entire Scoping/EIA process

5. Alternatives Analysis (Regulation 15, GN 30 of 2012)

The Environmental Management Act (2007) and its Regulations require that alternatives be considered, including the "no-project" option. The current Scoping Report presented the chosen site as a given; therefore, this section provides a simplified assessment of reasonable alternatives.

5.1. Site / Location Alternatives

No-Go alternative: The development does not proceed. This would avoid all environmental impacts but also forego local employment, skills transfer, and conservancy revenues.

Alternative location within Mayuni Conservancy: Relocation to a different sand ridge or mainland area would reduce flood risk but require new clearance of undisturbed woodland and increase access infrastructure.

Preferred site: The proposed Masambala Island location uses already-disturbed areas, maintains tourism value (riverfront setting), and limits additional clearance.

5.2. Design Alternatives

Clustered camp with buffers and boardwalks (preferred): Compact footprint in existing disturbed nodes, raised walkways across wet areas, and 50–100 m riparian buffers.

Linear riverfront layout: Higher risk of bank erosion and wildlife disturbance; not preferred.

Seasonal tent platforms: Lower impact but more costly and operationally complex.

5.3. Technology Alternatives

- Energy:
    - 100% solar with battery storage (lowest emissions; preferred).
    - Grid + solar hybrid (baseline option).
    - Diesel generator backup only (least preferred).
- Water supply:
    - River abstraction under permit, with borehole supplement (preferred).
    - Borehole only (risk of drawdown).
    - Trucked-in water (costly; contingency only).
- Wastewater:
    - Bio-digester or package plant with monitoring (preferred, GN 363 of 2012 compliant).
    - Simple septic tanks (high risk with shallow groundwater; not recommended).

5.4. Preferred Alternative

The preferred option is the current Masambala site, with a clustered design on already disturbed nodes, solar-based power, river abstraction with supplementary borehole, and a bio-digester or compliant package plant for wastewater. This option balances environmental protection with socio-economic benefits, while the no-project option remains the baseline for comparison.

6. Details of the Applicant and Consultant

6.1 Details of the Applicant

Applicant	Mr. Karel Grunschloss
Contact Person	Mr. Karel Grunschloss
Contact: **Cell:**	P.O. Box 90782 Windhoek +264 81 464 6174

Table 3: Details of the Applicant

6.2 Details of the Environmental Consultant

The environmental project team from EMCN is led by Rian du Toit. He is an Environmental Assessment Practitioner with more than twenty years' working experience in the field of Environmental Management.

Name	Role in the Project	Qualifications and Experience
Rian du Toit	Environmental Assessment Practitioner	M.A. Environment and Society (University of Pretoria) with more than 23 years' experience in the field of environmental management, mostly related to roads, services, transmission lines and mining right applications.

Table 4: Details of the Environmental Consultant and Proponent

7. Methodology for the Investigation

The environmental scoping investigation followed a systematic approach in line with the Environmental Impact Assessment Regulations (GN No. 30 of 2012) under the Environmental Management Act (Act No. 7 of 2007). The objective of the investigation was to gather, assess, and interpret relevant environmental and social information to inform the impact assessment and decision-making process. The following methodology was adopted:

7.1 Site Visit and Baseline Observation

A reconnaissance-level site visit was conducted to assess the biophysical and socio-economic characteristics of the proposed project area. The site inspection focused on identifying sensitive environmental features that may be affected by the construction and operation of the tourism camp. Particular attention was given to:

- Vegetation types and conservation status;
- Wildlife habitats and migration corridors;
- Surface water proximity and hydrological features;
- Soil types and erosion susceptibility;
- Land use and surrounding infrastructure.

Photographic documentation, field notes, and geospatial observations were recorded. The site visit also allowed for ground-truthing of desktop information and verification of project layout elements.

7.2 Literature Review

A desktop review of existing secondary sources was undertaken to complement field observations and ensure alignment with regional environmental data. Sources consulted included:

- Relevant legislation, policies, and guidelines (e.g., EMA 2007, Water Resources Management Act 2013, Forest Act 2001);
- Published environmental and biodiversity studies relevant to the Zambezi Region and the Kwando River system;
- Conservation zoning maps, vegetation maps, and satellite imagery;
- Socio-economic data published by the Namibia Statistics Agency (NSA, 2023);
- Existing reports on tourism, hydrology, wildlife, and heritage resources in the project region.

This review informed the development of the baseline environment and helped identify potential risks and sensitive receptors.

7.3 Specialist and Team Inputs

Inputs were obtained from various technical team members with expertise in:

- Environmental management and impact assessment;
- Biodiversity and ecological analysis;
- Hydrology and groundwater considerations;
- Socio-economic planning;
- Wastewater and infrastructure design.

Their professional insights guided the identification and evaluation of potential impacts, and the formulation of appropriate mitigation measures.

7.4 Impact Identification and Significance Assessment

Environmental impacts were identified using a combination of:

- Field observations;
- Stakeholder inputs;
- Literature-based sensitivity analysis;
- Professional judgement based on similar developments in comparable environments.

Impacts were assessed using a standard impact rating system that considers criteria such as extent, duration, intensity, probability, and reversibility. The significance of each impact was evaluated both before and after mitigation.

8. Bio-physical and Socio-economic Baseline

This section will present detailed baseline conditions following field surveys and desktop studies. It will describe the physical environment, including topography, soils, climate, and hydrology; the biological environment, including flora, fauna, and sensitive habitats; the socio-economic setting of the Mayuni Conservancy; and any cultural or heritage resources that could be affected.

8.1 Physical Environment

8.1.1. Climate

The Masambala project area lies within the tropical savanna climate zone (Köppen classification Aw), characterised by a distinct wet and dry season. The mean annual rainfall is approximately 600–800 mm, with most precipitation occurring between November and April (Mendelsohn et al., 2002). Average maximum temperatures range from 28 °C in June to 34 °C in October, while minimum temperatures vary from 6–10 °C during winter months to 18–22 °C in summer (Dirkx et al., 2008). Humidity levels are generally high during the rainy season, with relative humidity exceeding 70% in January. Evapotranspiration rates, however, remain high year-round, which influences water availability in non-flooded areas (MET, 2015).

The project location experiences periodic flooding linked to the Kwando River's seasonal flow regime, with peak discharge typically occurring between February and April, driven by upstream rainfall in the Angolan highlands (Mendelsohn et al., 2009). Such flood pulses sustain the wetland ecology and support fish migration and breeding cycles.

8.1.2 Topography and Geology

The Masambala area lies within the Kwando River floodplain of the Zambezi Region, characterised by low-lying, flat terrain at an average elevation of approximately 950–970 m above sea level (Mendelsohn et al., 2002). The topography is dominated by seasonally inundated alluvial plains, interspersed with slightly elevated sand ridges that remain dry during flood periods. These ridges, known locally as "sandveld islands", support woody vegetation adapted to well-drained soils (Simmons, 2010). Geologically, the region is part of the Kalahari Basin, underlain by unconsolidated aeolian and alluvial deposits of Quaternary age (Miller, 2008). The floodplain sediments comprise fine sands, silts, and clays derived from upstream erosion, with high organic content in

Figure 5: Topography of the area.

backwater lagoons and oxbow lakes (Ashton & Neal, 2003). Beneath these superficial deposits, the bedrock is composed primarily of Karoo Supergroup sediments and volcanic rocks, although these are seldom exposed due to thick overlying Kalahari sands (Miller, 2008).

8.1.3 Soils

Soils in the Masambala project area vary according to micro-topography and flooding patterns.

- Alluvial clay-loam soils occur along the active river channels and floodplain depressions. These soils are nutrient-rich but often waterlogged during the wet season, supporting grasses and sedges adapted to prolonged inundation (Mendelsohn & el Obeid, 2004).
- Arenosols dominate the sand ridges, characterised by deep, well-drained, nutrient-poor sands with low water-holding capacity. These support drought-tolerant woodland species such as Baikiaea plurijuga and Guibourtia coleosperma (Burgess et al., 2004).
- Hydromorphic soils are found in back-swamp areas and oxbow lakes, often with a high organic matter content and anaerobic conditions, creating specialised wetland habitats (FAO, 2001).

Figure 6: Typical clay to sandy soils.

Soil erosion risk is generally low on the flat floodplain, but sand ridge soils are susceptible to wind erosion when vegetation cover is removed (Thomas & Shaw, 1991).

8.1.4 Flora

The Masambala project area, situated along the Kwando River floodplain, supports a mosaic of vegetation types shaped by seasonal flooding, soil variation, and micro-topography. Riparian zones adjacent to the main river channel are dominated by tall reed beds (*Phragmites australis*) and papyrus swamps (*Cyperus papyrus*), interspersed with sedge meadows (*Cyperus* spp.) and floating aquatic vegetation (*Nymphaea nouchali, Nymphoides indica)* (Mendelsohn et al., 2009).

Slightly elevated alluvial terraces and sand ridges support riparian woodlands characterised by *Faidherbia albida* (Anna Tree)*, Acacia nilotica* (Scented thorn)*, and Combretum imberbe* (Leadwood*)*. These areas provide important dry-season forage for wildlife and livestock, as *F. albidasheds* its leaves during the wet season, enriching soils with nitrogen (Timberlake & Chidumayo, 2011).

Figure 7: Purple-pod Terminalia (Terminalia prunioides) are common in the area.

The surrounding sandveld vegetation is dominated by *Baikiaea plurijuga* (Zambezi teak) forests, with associated species including *Guibourtia coleosperma* (False mopane)*, Pterocarpus angolensis* (Kiaat)*,* and *Schinziophyton rautaneni* (Manketti)*i* (Curtis & Mannheimer, 2005). These woodlands are of high conservation and economic value due to their hardwood timber, slow regeneration rates, and sensitivity to over-harvesting.

Seasonally flooded grasslands occur in back-swamps and floodplain depressions, dominated by *Echinochloa pyramidalis, Oryza longistaminata*, and *Hyparrhenia rufa*, providing key grazing areas for wildlife and cattle during the flood recession (Turpie et al., 1999).

8.1.5 Fauna

The Kwando River floodplain supports a rich assemblage of wildlife, many of which are dependent on the seasonal flood dynamics. Large mammals include *Loxodonta africana* (African elephant), *Syncerus caffer* (African buffalo), *Hippopotamus amphibius* (hippopotamus), and *Tragelaphus spekii* (Sitatunga), the latter being a wetland specialist (Skinner & Chimimba, 2005).

Figure 8: The female Tragelaphus spekii (Sitatunga).

The area is an Important Bird Area (IBA) due to its high avian diversity, including species of conservation concern such as *Anastomus lamelligerus (*African openbill)*, Mycteria ibis (*yellow-billed stork)*, E*phippiorhynchus senegalensis *(saddle-billed st*ork), and the vulnerable *Balearica regulorum* (grey crowned crane) (Simmons, 2010).

Reptilian diversity is high, with notable species including *Crocodylus niloticus* (Nile crocodile) and *Varanus niloticus*(Nile monitor), while amphibians such as *Pyxicephalus adspersus* (African bullfrog) breed explosively during the early rainy season (Branch, 1998).

Table 5: Protected, Sensitive, or Species of Conservation Concern in the Masambala Area

Common Name	Scientific Name	IUCN Red List Status	Namibian Status*	Habitat Association
African elephant	*Loxodonta africana*	Endangered	Specially Protected	Riparian woodland, floodplain margins
African buffalo	*Syncerus caffer*	Least Concern	Protected	Floodplain grasslands, swamp edges
Grey crowned crane	*Balearica regulorum*	Vulnerable	Protected	Floodplain grasslands, shallow wetlands
Sitatunga	*Tragelaphus spekii*	Least Concern	Protected	Papyrus swamps, flooded grasslands
Zambezi teak	*Baikiaea plurijuga*	Near Threatened	Protected Plant	Sandveld woodlands
African wild dog	*Lycaon pictus*	Endangered	Specially Protected	Open woodland, grassland near water
Nile crocodile	*Crocodylus niloticus*	Least Concern	Protected	Main river channel, oxbow lakes
Saddle-billed stork	*Ephippiorhynchus senegalensis*	Least Concern	Protected	Shallow floodplain wetlands
Papyrus sedge	*Cyperus papyrus*	Not Assessed	N/A	Permanent swamps, river margins

*Namibian conservation status as per Nature Conservation Ordinance 4 of 1975 and subsequent amendments.

8.1.6 Hydrology

The Kwando River is a perennial watercourse forming part of the larger Zambezi River Basin. Its flow regime is strongly seasonal, driven by rainfall in the Angolan highlands, with peak flooding from February to April and low flows in September–October (Ashton & Neal, 2003). The river meanders through an extensive floodplain system, creating oxbow lakes, backwater channels, and seasonal pans. Floodwaters recharge adjacent wetlands and groundwater systems, maintaining biodiversity and supporting local livelihoods (Turpie et al., 1999).

Figure 9: Boat rides on the Kwando River.

Surface water quality in the Kwando River is generally high, with low turbidity except during peak floods when suspended sediment loads increase. Water chemistry is typically soft, with low dissolved solids due to limited mineralisation in the catchment (Ashton & Neal, 2003).

However, localised nutrient enrichment may occur from livestock access points and small-scale agriculture along the floodplain margins (Simmons, 2010).

8.1.7 Hydrogeology

The project area overlies the Kalahari Aquifer System, an extensive unconfined aquifer hosted in unconsolidated sands and gravels. Shallow groundwater is typically encountered at depths of 1–5 m in the floodplain and 10–20 m in adjacent sandveld areas (Murray et al., 2018). Groundwater is recharged annually during the wet season through flood infiltration and direct rainfall. Water quality is generally suitable for domestic use, with low salinity, but can vary seasonally due to evapo-concentration in isolated pans (Ashton & Neal, 2003).

Borehole yields in the floodplain are moderate to high, whereas yields from deeper Kalahari sands on ridges are more variable. Sustainable abstraction requires careful monitoring to avoid drawdown effects on floodplain wetlands and riparian vegetation (Murray et al., 2018).

8.1.8 Air Quality and Noise

Baseline air quality in the Masambala area is generally good due to the absence of significant industrial activities and low population density (MET, 2015). Ambient dust levels can increase during the dry season as a result of wind erosion on exposed sandy soils and unpaved roads, particularly during land preparation for agriculture. Biomass burning, both natural and anthropogenic, is a seasonal source of particulates and trace gases, especially between August and October (Crutzen & Andreae, 1990).

Noise levels in the area are typically low, dominated by natural sounds from fauna and wind through vegetation. Occasional noise sources include motorboats on the Kwando River, community activities, and small-scale agricultural operations.

8.2 Sensitive Habitats and Protected Areas

The Masambala project area lies within the Kwando River floodplain, a complex wetland system forming part of the Kwando–Linyanti–Chobe River system, which is a critical component of the Kavango–Zambezi Transfrontier Conservation Area (KAZA TFCA) (Mendelsohn et al., 2009). This ecosystem supports exceptionally high biodiversity, including numerous species of conservation concern, and provides vital ecosystem services such as water purification, flood regulation, and fisheries production (Turpie et al., 1999).

8.2.1 Floodplain and Wetland Habitats

The floodplain comprises permanent and seasonal wetlands, including papyrus (*Cyperus papyrus*) swamps, reed beds (*Phragmites australis*), shallow pans, oxbow lakes, and backwater channels. These habitats are hydrologically linked to the seasonal flooding regime of the Kwando River, which drives nutrient cycling and supports high primary productivity (Ashton & Neal, 2003).

Figure 10: Flood plains.

Riparian woodlands along slightly elevated terraces provide crucial dry-season refuge for herbivores and are important for maintaining connectivity between terrestrial and aquatic systems. These woodlands also serve as migratory corridors for large mammals, including *Loxodonta africana* and *Lycaon pictus* (Simmons, 2010).

8.2.2 Protected Areas

The Masambala area is located within the Bwabwata National Park, a multi-use conservation area that integrates biodiversity protection with community-based natural resource management. The park forms part of the KAZA TFCA, linking wildlife corridors between Angola, Botswana, Namibia, Zambia, and Zimbabwe (MET, 2015).

The Kwando Core Area of Bwabwata National Park is particularly significant for elephant conservation, forming part of one of the largest remaining contiguous populations of African elephants (Chase et al., 2016). It is also an Important Bird Area (IBA) due to the presence of globally threatened and near-threatened bird species (Simmons, 2010).

8.2.3 Conservation Value and Sensitivities

Key sensitivities in the Masambala area include:

- Dependence of wetland biodiversity on the natural seasonal flood pulse.

- Vulnerability of *Baikiaea plurijuga* woodlands to logging and land conversion.
- Potential disturbance to breeding colonies of waterbirds in papyrus swamps.
- High conservation value of the area as part of regional wildlife migration corridors.

The presence of multiple Red List species and the area's role in transboundary conservation elevate its conservation importance. Any alteration to hydrology, vegetation cover, or habitat structure could have significant ecological consequences, both locally and across the wider KAZA landscape.

8.3 Socio-Economic Environment

8.3.1 Demographics and Settlement Patterns

The Masambala project area lies within the Zambezi Region of Namibia, which had an estimated population of approximately 90,000 people in 2022, representing about 3.4% of Namibia's total population (NSA, 2023). Population density in the Zambezi Region is significantly higher than the national average, with 6–8 persons per km² compared to the national average of 3 persons per km² (Mendelsohn et al., 2002).

Settlements along the Kwando River, including Masambala, are typically small rural villages with scattered homesteads organised in extended family units. Houses are constructed primarily from locally sourced materials such as timber poles, thatch, and mud bricks. Population growth in the area is driven by high fertility rates and rural-urban migration is relatively limited compared to other Namibian regions, due in part to subsistence farming and fishing opportunities (NSA, 2023).

8.3.2 Land Use and Tenure

Land in the Masambala area falls under communal tenure, administered by traditional authorities in accordance with the Communal Land Reform Act, 2002 (Act No. 5 of 2002). The predominant land use is subsistence agriculture, with households cultivating crops such as maize (Zea mays), millet (*Pennisetum glaucum*), and sorghum (*Sorghum bicolor*) during the rainy season. Livestock rearing, particularly cattle (*Bos taurus indicus*), goats (*Capra hircus*), and poultry, is an important economic and cultural activity (Mendelsohn et al., 2002).

Fishing in the Kwando River and associated floodplain lagoons is a critical source of protein and household income, with species such as *Clarias gariepinus* (African sharptooth catfish) and *Oreochromis andersonii* (three-spot tilapia) being commonly caught (Hay et al., 2000). Natural resource use also includes harvesting reeds, papyrus, and thatching grass for construction, as well as fuelwood and medicinal plants from surrounding woodlands.

8.3.3 Economic Activities

The formal economy in the Masambala area is limited, with most households dependent on subsistence livelihoods supplemented by government social grants, including old-age pensions and child support grants (NSA, 2023). Small-scale trading, craft production, and tourism-related employment provide additional income opportunities. The proximity of Bwabwata National Park and the KAZA TFCA supports community-based tourism initiatives, such as conservancies and joint-venture lodges, which generate revenue through wildlife viewing and sport hunting under controlled quotas (MET, 2015).

8.3.4 Infrastructure and Services

Infrastructure provision in Masambala is limited. Access roads are mostly gravel or sand tracks, with seasonal flooding affecting connectivity during the wet season. Basic education is provided by local primary schools, while secondary schools and health facilities are located in larger settlements such as Kongola. Water supply is predominantly sourced from communal boreholes and river abstraction points, while sanitation infrastructure is minimal, with pit latrines being the most common facility (NSA, 2023). Electricity access is limited, with most households relying on firewood and paraffin for cooking and lighting.

8.3.5 Archaeological and Cultural Heritage

The Kwando River floodplain has been inhabited for centuries by Lozi, Subiya, and Mbukushu communities, and the area contains cultural heritage sites including ancestral graves, sacred groves, and traditional fishing structures (Pendleton, 1996). Oral histories and archaeological surveys indicate that the floodplain was historically an important trading and migration route, linking interior southern Africa with the Zambezi River corridor (Mendelsohn et al., 2009). These cultural resources are protected under the National Heritage Act, 2004 (Act No. 27 of 2004), which requires consultation with the National Heritage Council prior to any disturbance.

8.3.6 Gender and Demographic Structure

According to the Namibia Statistics Agency (NSA, 2023), women constitute approximately 52% of the Zambezi Region's population, with female-headed households accounting for nearly 47% of households. Gender roles in the Mayuni Conservancy are strongly linked to natural resource use: women are primarily responsible for water collection, firewood harvesting, and subsistence crop production, while men are more involved in fishing, livestock herding, and wage-based employment. This division of labour means that women are disproportionately affected by changes in access to natural resources and are also less likely to secure formal employment opportunities within the tourism sector unless targeted measures are introduced.

8.3.7 Vulnerable Groups

The socio-economic profile also reveals the presence of vulnerable groups, including the elderly, widows, youth without formal education, and landless households who rely heavily on seasonal work and natural resources. Vulnerability is heightened by high unemployment rates (estimated at over 30% in rural Zambezi) and by exposure to climate-related risks such as floods and droughts. Without deliberate safeguards, such groups may be excluded from the benefits of tourism development or bear a disproportionate share of negative impacts such as land competition or resource restriction (NSA, 2023; MET, 2015).

8.3.8 Community Resource Dependency

Livelihoods in the Mayuni Conservancy remain heavily dependent on natural resources. Subsistence farming (maize, millet, and sorghum) provides staple food security, while fishing in the Kwando River is a critical protein source, with surveys showing that up to 70% of households participate in small-scale fisheries at least seasonally (Hay et al., 2000). Firewood, reeds, and thatching grass are widely harvested for both household use and small-scale trade. The cultural and spiritual value of certain sites (e.g., sacred groves, burial grounds) further deepens community dependency on land and natural resources beyond purely economic terms.

8.3.9 Benefit Distribution and Equity Considerations

While the report notes that employment will prioritise members of the Mayuni Conservancy, it does not assess how benefits will be distributed across gender, age groups, or socio-economic classes. Experience from other conservancy-based tourism projects in Namibia has shown that without clear benefit-sharing mechanisms, financial returns often accrue to a narrow group of committee members or elites, while vulnerable households remain marginalised (Mendelsohn et al., 2009). Equitable participation—through transparent revenue-sharing agreements, gender-balanced hiring, and youth training programmes—should therefore form part of the baseline assessment and subsequent management plan.

9. Public Participation Processes

The public participation process was undertaken in accordance with the principles and requirements of the Namibian Environmental Management Act, No 7 of 2007 and associated Regulations. The approach to the public participation process was open and participatory with the full involvement of Interested and Affected Parties (IAPs). This approach ensured that reasonable measures were taken to identify stakeholder issues and concerns.

The Methodology for the Public Participation was as follows: The proposed project was advertised twice in two different newspapers as to comply with the Environmental Management act No.7 of 2007 and the applicable Environmental Regulations.

The advertisements were placed as follows: The **Market Watch sections** of the Allgemeine Zeitung, Republikein and Daily Sun newspapers on the following dates:

1. 25 August 2025 and
2. 1 September 2025.

Please refer to the following pages for the proof of placements of the newspaper notices.

There were NO responses received during the comment period.

The Mashi Traditional Authority is the custodian of the area. There are no people living close to the proposed area. The Mayuni Conservancy is responsible for the management of the area where the camp is. The Khuta of Sifanu at Kayuwo was also contacted and gave consent for the development.

There were no objections received by any Authority or Interested or Affected Party.

Please find attached the consent letters received from all above mentioned parties (Page 31 - 33).

THE NOTICE THAT WAS PUBLISHED IN THE NEWSPAPERS

NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT

THE PROPOSED ECO-TOURISM CAMPSITE AT MASAMBALA ISLAND (MAYUNI CONSERVANCY) - ZAMBEZI REGION

The proposed campsite on Masambala Island within Mayuni Conservancy represents a unique opportunity to develop a high-quality, sustainable eco-tourism product that benefits both visitors and the local community. By combining comfortable, low-impact accommodation with diverse nature-based activities and a strong commitment to environmental stewardship and community empowerment, this venture aims to be a model of responsible tourism in the Zambezi Region.

Enviro Management Consultants Namibia is appointed to undertake an Environmental Impact Assessment (EIA) and prepare an Environmental and Social Management Plan (ESMP) in accordance with the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations, 2012 (Government Notice No. 30 of 2012). The completed documents will be submitted to the Environmental Commissioner for review and consideration in support of an application for an Environmental Clearance Certificate (ECC) for the proposed project.

All Interested and Affected Parties (I&AP's) are hereby invited to register as stakeholders in terms of the environmental assessment process and to give input, comments or opinions regarding the intended project before the 15th of September 2025.

For further information, and to register as an I&AP please contact:

Enviro Management Consultants Namibia
Contact: Mr. Rian du Toit
Fax: 088 626968 | Email: enviromc@iway.na

PROOF OF PLACEMENT OF NOTICES

NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT

THE PROPOSED ECO-TOURISM CAMPSITE AT MASAMBALA ISLAND (MAYUNI CONSERVANCY) - ZAMBEZI REGION

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Enviro Management Consultants Namibia
Contact: Mr. Rian du Toit
Fax: 088 626968 | Email: enviromc@iway.na

WESTAIR AVIATION

***Westair Aviation (Pty) Ltd** has the following vacancy available and invite all suitably qualified candidates to apply before or on 31 August 2025.*

Management Accountant Graduate Program

We are looking for skilled Management Accountants who will contribute to analyzing key financial data and making critical business decisions based on the analysis results. You will help to ensure business growth and company's long-term success. Your duties will also include overseeing accounting procedures and preparing forecasts, budget reports, and risk analysis.

A successful candidate must be good in mathematics and at the same time have a business-oriented thinking. We also expect you to be responsible, proactive and able to work both as a strategist and a decision maker.

Qualifications & Experience:

- Undergraduate qualification in Finance (BCom Management Accounting) with a Postgraduate BCOM honours in Management Accounting as a prerequisite
- Enrolment with CIMA as a prerequisite
- Exemptions with CIMA as a prerequisite
- Knowledge of Namibia and South Africa Tax and VAT legislation
- Have an interest in aviation and transport logistics industry
- Computer literacy with extensive knowledge in Excel
- Have the ability to set and achieve high standards
- Fluency in English

CVs can be submitted via our recruitment platform using the following link:

https://westairgroupofcompanies.breezy.hr/p/93696f3e03e8

Only short listed candidates will be contacted. No walk-ins or unsolicited calls will be accepted.

Westair Aviation is an equal opportunity employer.

REPUBLIC OF NAMIBIA — **AFRICAN DEVELOPMENT BANK**

MINISTRY OF AGRICULTURE, FISHERIES, WATER AND LAND REFORM

NAMIBIA WATER SECTOR SUPPORT PROGRAM (NWSSP)
PUBLICATION OF ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT & MANAGEMENT REPORTS

A. General
The Government of the Republic of Namibia through the Ministry of Agriculture, Fisheries, Water and Land Reform (MAFWLR) has received financing from the African Development Bank (AfDB) to implement the Namibia Water Sector Support Program (NWSSP). The program is supporting the construction and extension of water supply systems and sanitation facilities (nationwide). NWSSP appointed D&P Engineers and Environmental Consultants and Enviro Dynamics to undertake Environmental and Social Impact Assessment (ESIA) studies for the listed projects and obtained Environmental Clearance Certificates.

B. Description of the Projects

1. **Ruacana South Phase 1 and the Reservoir in Omusati Region:** The project comprises extension and upgrading of booster pumps, reservoirs and pipeline network to supply water to communities in the area. This pipeline ex tends southwards from Olushandja Water Purification Plant to Ruacana Waterfalls.
2. **Katima Mulilo – Ngoma Phase 3, 4 and the Reservoir in Zambezi Region:** Phase 3 starts from Bukalo via Kabbe, Lusese to Ikumwe and Phase 4 starts from Bukalo and stretches towards southerly direction to Muyako and via Ibbu to Ngoma.
3. **Katima Mulilo – Kongola Water Supply Project Phase 3 in Zambezi Region:** The phases of pipeline construction are composed of offtake points to be provided along the pipeline route to cater for communities in the area. The pipeline covers 110km from Kongola along the C49 to Linyanti.

C. Compliance with environmental and social safeguards provisions and procedures
To fulfil the requirements of the Namibian Environmental Management Act, No. 7 of 2007, and the environmental and social Operational Safeguards (OS) of AfDB, NWSSP appointed consultants to prepare mandatory environmental and social management documents for the listed projects. Similarly, stakeholder consultations have been conducted with all affected stakeholders to present project information. The specific objectives of the ESIA studies are respectively to:

- assess all environmental and social risks and impacts (negative and positive) of the project;
- adopt measures, activities and mechanisms to be implemented to avoid or minimize E&S risks and negative impacts;
- adopt measures, activities and mechanisms to be implemented to maximize/optimize the positive E&S impacts of the project;
- assess the risks of damage/loss to physical assets (land, real estate) and sources of income, etc.;
- adopt participatory mechanisms to compensate for damage and loss of physical property and livelihoods;

In compliance with national legislation on environmental and social assessments, and the E&S requirements of the African Development Bank (AfDB) mentioned above, the Environmental Commissioner at the Ministry of Environment, Forestry and Tourism has approved the said documents and accompanying management measures proposed there. To this effect, Environmental Clearance Certificates have been issued for the respective projects.

D. Availability and accessibility of documents approved by the Government
The approved environmental and social reports are available for public review and consultation at the following locations/addresses:

- Ministry of Agriculture, Fisheries, Water and Land Reform, (https://mawlr.gov.na/documents)
- Ministry of Environment, Forestry and Tourism, (https://eia.met.gov.na/web/cleared);
- Ruacana Town Council Offices, Freedom Street, Oshifo
- Zambezi Regional Council Offices, Katima Mulilo

2025 -08- 19

Republic of Namibia
Ministry of Agriculture, Water and Land Reform

Teofilus Nghitila (Mr.)
Executive Director & Accounting Officer

Chevron partners with Palms for Life to address food insecurity in Namibia

Helping hand

Chevron's support builds on Palms for Life's established presence in Namibia and leverages existing Early Childhood Development Centres, which will expand into Community Protection Centres.

STAFF REPORTER

Representatives from the Office of the President, Chevron and Palms for Life at the recent signing ceremony to help address food shortages.

Harmattan Energy (Chevron) announced its support for a two-year Emergency Food Support Programme in Namibia to address acute food insecurity and malnutrition. The programme, developed by Palms for Life and local partners in collaboration with the Office of the Vice President, will run from September 2025 to September 2027 in eight regions across the country.

The initiative will provide daily nutritious meals for 3 150 highly vulnerable people, including children under five, pregnant and breastfeeding women, and marginalised groups. With shared household consumption, the programme is projected to benefit 15 750 people each year.

"Seeing nutritious school meals being provided to preschoolers in a remote community highlighted the initiative's role in supporting education and demonstrating the government's efforts against malnutrition," said Beatrice Bienvenu, Chevron Namibia and West Africa country manager, after visiting Palms for Life's Early Child Development Centre in Farm Uitkomst.

Bienvenu also visited the community clinic to learn about initiatives to fight malnutrition cases and met with community representatives.

"This programme is a prime example of Chevron's commitment to strengthening communities where we operate by working with trusted partners that can deliver both immediate assistance and lasting pathways toward food security," Bienvenu said.

Chevron's support builds on Palms for Life's established presence in Namibia and leverages existing Early Childhood Development Centres, which will expand into Community Protection Centres. These centres will serve as hubs for food distribution, nutrition education and parenting groups, with the possibility of establishing small-scale community gardens to strengthen long-term resilience.

The programme is fully aligned with the government's national priorities, ensuring sustainability and complementarity with public-sector efforts. By addressing urgent needs while supporting community development, Chevron and Palms for Life are helping protect the health, food security, dignity and the future of thousands of Namibian families.

Chevron has an 80 per cent-owned and operated interest in petroleum exploration licence (PEL) 90 (Block 2813B) in the Orange Basin and in PEL82 (Blocks 2112B and 2212A) in the Walvis Basin, offshore Namibia.

Capricorn Group Changemakers celebrate community heroes in honour of Heroes' Day

STAFF REPORTER

Over 40 community heroes gathered to share stories, games and laughter, a recognition at the Heroes' Day celebration.

In celebration of Heroes Day, more than 40 Capricorn Group Changemakers participated in an event to recognise community and project leaders and volunteers from different projects, centres and organisations. This initiative celebrated the outstanding efforts of local charity leaders as community heroes who tirelessly strive to meet ongoing community needs through their selfless actions.

The event took place on Thursday, 28 August 2025, featuring more than 40 community heroes representing various community initiatives and charitable organisations. The day was dedicated to recognising and celebrating the contributions of caregivers, employees and volunteers, those unsung heroes who consistently go above and beyond, often without recognition or rewards.

The Capricorn Changemakers honoured their remarkable achievements in community service, as they strive to change lives and create a positive impact by supporting at-risk youth, children, the elderly, abandoned animals and more.

The celebration highlighted the strong collaboration between Capricorn Group and the communities it serves. The event featured a warm and engaging experience with various activities, including a motivational talk by John Kamati. The honoured heroes participated in group games, shared meals and enjoyed beverages.

They also had moments of relaxation at manicure and pampering stations, engaging in friendly conversations throughout the event. The atmosphere was filled with gratitude and camaraderie, creating a platform for Changemakers and community heroes to connect on a deeper level.

"As we honour those who helped build our nation, we also want to recognise the important work of our community heroes who make progress possible. We are committed to strengthening our communities, and the unsung heroes among us make it possible to reach those in greatest need, as they consistently engage at the grassroots level. Collaborating with these individuals provides us with better access to our communities.

"This initiative reflects our dedication to promoting kindness and driving positive change," said Marlize Horn, group chief brand and corporate affairs officer of Capricorn Group.

Sharnay Botha from the African Child Development Trust (ACDT) thanked the Capricorn Group for their significant support in reaching vulnerable students across Namibia.

"We distribute educational materials across Namibia. The Capricorn Group has funded us since its launch, and together we have been able to distribute more than 14 million books, reaching the most vulnerable and those who do not have access to education. We distribute the books in 11 languages, and the feedback from the community, teachers, parents, and children indicates that they are very happy to have materials available in their local language."

Changemaker Petrus Nujoma, a software engineer at the Capricorn Group, expressed his joy at making a difference in communities. "I believe with my skills and talent, I can do much more than just sit at a desk. It also means getting out there, reaching out, and giving people a hand with what they need, which means a lot to me as a human being. It makes me feel fulfilled."

OFFICIAL CORRESPONDENCE

MAYUNI CONSERVANCY

MAYUNI CONSERVANCY, P. O BOX 8011, MAYUNI, KATIMA MULILO, NAMIBIA

To

The Chairperson

Zambezi Regional land board

Katima Mulilo

Consent letter for Mazambala Tented Campsite

Dear Sir /Madam

To Whom It May Concern

Re: Recommendation letter for Mr Grunschlosss Karel

We, the management committee of Mayuni Conservancy is herewith confirm by signature below in its capacity is dully authorised to consent Mr Grunschlosss Karel I.D. 87122400255 for lease hold for 25 Years on Mazambala campsite

The management committee will be appreciate if this consent letter is going to be considered by your respected office.

Yours sincerely.

Opa Walubita	Musole zoricky	Fidel Mombela
Chairperson	Manager	Secretary
0818611404	0813948684	0810338144

MAYUNI CONSERVANCY
mayuniconservancy8011@gmail.com
13 DEC 2024
P.O.BOX 8011 MAYUNI POST OFFICE
KATIMA MULILO, NAMIBIA

Sifanu Sub-khuta
P. O. Box 8011
Mayuni
Katima Mulilo
09December2024

To whom it may concern

Dear Sir/Madam

Re-consent letter for Mazambala

The khuta of sifanu at Kayuwo Area is hereby consenting Mr. Karel Grunschloss ID No: 87122400255, as a new investor for the above mentioned: Mazambala Island. He is consented for 25 years of operation on the Mazambala Island, as a Tented campsite.

Therefore the khuta is recommending him for the new developments on the Island and are looking forward for the progress of planned Tented campsite.

Your cooperation in this regard will be highly appreciated.

Yours Faithfully

Area Headman: P. M.V.S. Assistant Headman: .....

Secretary: ..... Witness: .....

SIFANU SUB-KHUTA MAFWE MAMBUKUSHU
Po Box 8011
Mayuni
2024 -12- 09
Mashi Head Quarters
Zambezi Region
REPUBLIC OF NAMIBIA

Mashi Traditional Authority
Mafwe Headquarter
P.O.Box 8011, Mayuni, Zambezi Region, Namibia

To: **the Chairperson**
Zambezi Communal Land Board
Katima mulilo
Zambezi Region
Namibia

MASHI TRADITIONAL AUTHORITY
P.O BOX 8011
Mayuni Katima Mulilo
17 DEC 2024
Mafwe Head Quarters
REPUBLIC OF NAMIBIA

Dear sir/madam

The Mashi Traditional Authority hereby consents that:

Mr/Mrs./Ms/Dr: Karel Grunschloss ID NO: 87122400258
Resident of Kongola constituency has been authorized to register for.....hectares for Lease hold land right for the following purpose:

Tourism (mazambala island as a tented camp)

(If customary state whether residential or farming, if leasehold state the type of business):
The land is situated in the: Kongola constituency described as follows:

easten of kongola area, along the Trans-zambezi
High way, 4km to the @ tented camp

Signed by the secretary **Hon Ngambela** **Hon Chief. Mayuni**

10. Impact Assessment Process

During construction, potential impacts may include vegetation clearance, noise and dust generation, soil disturbance, and waste production. In the operational phase, key considerations will include boat activity-related noise, waste generation, wildlife disturbance, and sustainable water use. Decommissioning, though unlikely in the near future, could involve waste disposal and site rehabilitation. The assessment will rate each impact's significance and propose appropriate mitigation measures.

10.1. Impact Assessment Methodology

The impact assessment for the Masambala Project was conducted in accordance with the Environmental Management Act, 2007 (Act No. 7 of 2007) and its 2012 EIA Regulations, as well as the principles outlined in the International Finance Corporation (IFC) Performance Standards and Equator Principles.

The methodology follows a structured process designed to:

1. Identify potential environmental and socio-economic impacts during project construction, operation, and decommissioning.
2. Predict the magnitude, extent, and duration of these impacts.
3. Evaluate their significance using transparent and repeatable criteria.
4. Recommend mitigation and enhancement measures to reduce negative impacts and optimise positive outcomes.

10.1.1 Impact Identification

Impacts were identified through:

- Review of project design, activities, and schedules.
- Baseline environmental and socio-economic data from Section 7.
- Site visits and stakeholder consultations.

Analysis of similar projects in comparable environments.The following table indicate a summary of the potential impacts associated with this development:

Table 6: Summary of Potential Impacts – Masambala Project

Phase	Impact Category	Description of Potential Impact	Likely Nature	Sensitivity Context
Construction	Land use change & habitat loss	Clearing of riparian woodland, grassland, and wetland vegetation for project footprint, temporary camps, and access routes.	Negative	High biodiversity value area inside Bwabwata NP; several protected plant species present.
	Soil disturbance & erosion	Compaction, topsoil loss, and erosion during site clearing and earthworks.	Negative	Sandy soils on ridges highly erodible; wetland soils vulnerable to

Phase	Impact Category	Description of Potential Impact	Likely Nature	Sensitivity Context
				compaction.
	Surface water contamination	Sediment runoff, accidental hydrocarbon spills, and waste discharge into the Kwando River system.	Negative	River is lifeline for biodiversity and local communities; downstream transboundary importance.
	Groundwater contamination	Fuel/oil leaks from machinery and improper waste disposal infiltrating shallow aquifer.	Negative	Groundwater levels shallow; high connectivity with surface water.
	Disturbance to fauna	Noise, light, and human activity disrupting wildlife movement and breeding, particularly elephants and waterbirds.	Negative	Kwando floodplain is major migratory corridor and breeding site.
	Waste generation	Solid and liquid waste from construction workforce and camps.	Negative	Potential for pollution and attracting problem animals.
	Cultural heritage disturbance	Possible disturbance to graves, sacred groves, or archaeological sites.	Negative	Several sites of cultural significance in floodplain area.
	Local employment	Creation of short-term construction jobs for local residents.	Positive	Opportunity for skills transfer and income generation.
	Local business opportunities	Demand for goods and services during construction phase.	Positive	Potential for local supply contracts.
Operation	Hydrological changes	Alteration of natural floodplain water flow patterns due to permanent structures.	Negative	Could impact wetland vegetation and fisheries.
	Wildlife mortality & displacement	Increased vehicle movement and human activity causing wildlife collisions and avoidance of area.	Negative	High presence of large mammals and threatened species.
	Waste generation	Improper waste handling from operational activities leading to pollution.	Negative	Potential contamination of wetland and attraction of problem animals.
	Sewage system waste generation and disposal	Wastewater, sludge, and screenings from sewage treatment and disposal; risk of nutrient enrichment, pathogen contamination, and groundwater pollution.	Negative	High groundwater table and proximity to sensitive wetland habitats; potential public health risk.

Phase	Impact Category	Description of Potential Impact	Likely Nature	Sensitivity Context
	Disturbance from visitors	Tourism activities causing noise, light, and physical disturbance to wildlife.	Negative	High sensitivity due to nesting birds and wetland fauna.
	Tourism enhancement	Improved facilities or access potentially boosting eco-tourism activities.	Positive	Masambala lies within a tourism hotspot in Bwabwata NP.
	Boat game rides – noise and wake disturbance	Boat game rides – noise and wake disturbance	Negative	Kwando River is a core wildlife habitat and migratory route for aquatic and semi-aquatic species.
	Mukolo canoe excursions – wildlife disturbance	Close approach to birds or mammals potentially causing flushing or stress if not properly managed.	Negative	Some species, especially breeding birds, are highly sensitive to disturbance.
	Guided game drives – road disturbance	Soil compaction, dust generation, and disturbance to wildlife from off-road driving or repeated vehicle use.	Negative	Surrounding national parks and conservancies contain sensitive floodplain and woodland habitats.
	Birdwatching – disturbance to nesting areas	Approaching nests or breeding colonies can cause abandonment or reduced breeding success.	Negative	Several species of conservation concern nest along riverbanks and in floodplain vegetation.
	Nature walks – trampling of vegetation	Foot traffic causing damage to ground cover and sensitive wetland plants.	Negative	Localised damage can be significant in fragile riparian zones.
	Catch-and-release fishing – handling stress to fish	Improper handling increasing post-release mortality; potential littering from fishing tackle.	Negative	The Kwando River fishery is an important subsistence and tourism resource.
	Community benefits	Potential revenue sharing through conservancy agreements or park fees.	Positive	Supports local livelihoods and conservation incentives.
	Environmental education opportunities	Increased awareness through visitor engagement and interpretive materials.		

10.1.2 Assessment Criteria

Impacts are evaluated based on a significance rating system considering the following criteria:

Table 7: Assessment Criteria

Criterion	Description
Nature	Positive, negative, or neutral change caused by the project.
Extent	The geographical area affected: local (<5 km), regional (within Zambezi Region), or national/transboundary.
Duration	Period over which the impact will be felt: short-term (<1 year), medium-term (1–10 years), long-term (>10 years), or permanent.
Intensity	The degree to which the impact alters environmental or social components, from low to very high.
Probability	Likelihood of the impact occurring: unlikely, possible, probable, or definite.
Reversibility	Whether the impact can be reversed naturally or through mitigation.
Legal Compliance	Whether the activity complies with applicable laws and regulations.

Total score = (Extent + Duration + Intensity + Probability + Reversibility) × 10

10.1.3 Scoring and Significance Rating

Each criterion was assigned a numerical value according to a standard scale. The total score was calculated and translated into a significance category as follows:

Table 8: Scoring and Significance Rating

Total Score Range	Significance Rating	Interpretation
0–125	Minor	Impact is negligible or easily mitigated; low priority for management.
126–250	Moderate	Impact is measurable and requires mitigation but is not critical to project viability.
251–375	High	Impact is substantial; mitigation is essential and may influence project design.
>375	Critical	Impact may cause irreversible damage or serious legal non-compliance; may require major redesign or avoidance.

10.1.4 Mitigation Hierarchy

The assessment applies the internationally recognised mitigation hierarchy:

1. Avoid impacts by altering location, design, or timing.
2. Minimise impacts through improved technology or procedures.
3. Rehabilitate/restore affected environments after disturbance.
4. Offset/compensate for residual impacts that cannot be avoided.

The following tables indicate a summary of the impact significance identified and classifies according to the significance ratings. These are done for the Construction and Operational phases of the project.

Table 9: Impact Significance – ***Construction Phase***

Impact Category	Extent	Duration	Intensity	Probability	Reversibility	Pre-Mitigation Score	Pre-Mitigation Rating	Post-Mitigation Score	Post-Mitigation Rating
Land use change & habitat loss	2	3	4	4	3	160	Moderate	120	Minor
Soil disturbance & erosion	1	2	3	3	2	110	Minor	80	Minor
Surface water contamination	2	2	4	3	3	140	Moderate	100	Minor
Groundwater contamination	2	2	3	2	3	120	Minor	80	Minor
Disturbance to fauna	2	2	4	3	3	140	Moderate	110	Minor
Waste generation	1	2	3	5	2	130	Moderate	60	Minor
Cultural heritage disturbance	1	3	4	2	3	130	Moderate	80	Minor
Local employment	1	1	2	3	1	80	Minor (Positive)	100	Minor
Local business opportunities	1	1	2	3	1	80	Minor (Positive)	100	Minor

Table 10: Impact Significance – ***Operational Phase***

Impact Category	Extent	Duration	Intensity	Probability	Reversibility	Pre-Mitigation Score	Pre-Mitigation Rating	Post-Mitigation Score	Post-Mitigation Rating
Hydrological changes	2	3	3	3	3	140	Moderate	100	Minor
Wildlife mortality & displacement	2	3	3	3	3	140	Moderate	110	Minor
Waste generation	1	2	3	5	2	130	Moderate	70	Minor
Sewage system waste generation and disposal	2	3	4	3	3	150	Moderate	100	Minor
Disturbance from visitors	1	2	3	3	2	110	Minor	80	Minor
Boat game rides – noise and wake disturbance	2	2	3	3	2	120	Minor	90	Minor
Mukolo canoe excursions – wildlife disturbance	1	2	2	3	2	100	Minor	70	Minor
Guided game drives – road disturbance	2	2	3	3	2	120	Minor	90	Minor
Birdwatching – disturbance to nesting areas	1	2	3	3	2	110	Minor	80	Minor
Nature walks – trampling of vegetation	1	2	2	3	2	100	Minor	70	Minor
Catch-and-release fishing – handling stress to fish	1	2	2	3	2	100	Minor	70	Minor
Tourism enhancement	2	3	3	3	1	120	Minor (Positive)	140	Moderate(Positive)

Impact Category	Extent	Duration	Intensity	Probability	Reversibility	Pre-Mitigation Score	Pre-Mitigation Rating	Post-Mitigation Score	Post-Mitigation Rating
Community benefits	2	3	3	3	1	120	Minor (Positive)	140	Moderate(Positive)
Environmental education opportunities	2	3	2	3	1	110	Minor (Positive)	130	Moderate(Positive)

10.2 Decommissioning Phase

Although the proposed Masambala Tourism Project is intended as a long-term eco-tourism facility, it is important to consider potential impacts should operations cease in future.

10.2.1 Potential Impacts

- Waste Generation and Disposal: Dismantling of structures could generate solid waste (timber, scrap metal, plastics, demolition rubble) that may contaminate floodplain habitats if not properly removed.
- Soil and Vegetation Disturbance: Removal of platforms, boardwalks, and service infrastructure may cause localised soil compaction, erosion, and damage to natural vegetation.
- Water and Groundwater Risks: Improper decommissioning of septic tanks, biodigesters, or package treatment plants could result in leaching of contaminants into shallow groundwater and adjacent wetlands.
- Wildlife Disturbance: Noise, vehicle movement, and dismantling activities could temporarily disturb elephants, hippos, and sensitive bird colonies in the Kwando floodplain.
- Socio-economic Effects: Job losses and reduced revenue for the Mayuni Conservancy may negatively affect livelihoods if alternative income streams are not planned.

10.2.2 Mitigation and Management Measures

- Decommissioning Plan: A site-specific decommissioning and rehabilitation plan must be developed at least 12 months before closure, approved by MEFT.
- Waste Management: All non-biodegradable materials must be transported off-site to licensed disposal facilities. Reusable materials (timber, steel) should be salvaged for community benefit.
- Rehabilitation: Disturbed areas must be re-vegetated using locally indigenous species within one wet season after decommissioning.
- Sewage and Hazardous Infrastructure: Septic tanks, biodigesters, or treatment plants must be de-sludged, dismantled, and the footprint sealed with compacted clean fill to prevent groundwater contamination.
- Wildlife Sensitivity: Works should avoid peak bird breeding and flood seasons; night work should be prohibited.
- Community Transition: A structured phase-out programme should be implemented with the Mayuni Conservancy to explore alternative uses of infrastructure (e.g., educational facilities, community camp) and ensure continued benefit.

With the above measures, residual environmental impacts from decommissioning are expected to be minor and short-term, while socio-economic impacts can be mitigated through advance planning and community agreements.

10.3 Cumulative Impacts

The Environmental Management Act (2007) and the EIA Regulations (GN 30 of 2012, Regulation 15) require consideration of cumulative and transboundary impacts. Cumulative impacts are those that arise from the incremental effect of the proposed Masambala Tourism Project when added to other existing or reasonably foreseeable developments and activities in the same area. In the Kwando River floodplain, where multiple tourism facilities and community activities are already present, cumulative effects are of particular importance.

10.3.1 Tourism Pressure and Traffic

The Kwando River corridor already supports a number of established lodges, camps, and community-based tourism facilities within the Mayuni Conservancy and adjacent Bwabwata National Park. The addition of Masambala Camp will increase both road-based access and boat-based traffic on the river. While the traffic generated by a single facility is modest, the combined effect of several operators increases disturbance to elephants, hippos, and aquatic bird colonies. Boat noise and wake effects may alter animal behaviour and erode the wilderness experience for visitors if not managed collectively.

10.3.2 Hydrology and Floodplain Connectivity

The Kwando floodplain is a seasonally dynamic system that depends on natural water level fluctuations. Existing and planned water abstraction by lodges, villages, and agricultural projects may cumulatively affect floodplain recharge and downstream availability. Even small-scale abstractions, when aggregated, can influence river hydrology. Furthermore, infrastructure such as raised platforms, septic systems, and boardwalks may collectively reduce ecological connectivity of floodplain habitats if not designed and sited sensitively.

10.3.3 Wildlife Disturbance and Habitat Fragmentation

Although the Masambala project footprint is small, the cumulative clearing of riparian woodland across several lodges gradually reduces habitat quality. Elephant movement corridors and hippo grazing areas in the Kwando corridor are especially sensitive to incremental fragmentation. Without coordinated siting and buffer management across facilities, the cumulative effect may constrain wildlife movements within this section of the Bwabwata National Park.

10.3.4 Wastewater and Pollution

While one camp's effluent can be managed through biodigesters or package plants, cumulative wastewater discharge from multiple camps raises the risk of nutrient loading in the Kwando system. This could contribute to eutrophication, declining water quality, and negative impacts on aquatic biodiversity. A collective monitoring and compliance approach is necessary to ensure that all discharges meet the standards set under GN 363 of 2012.

10.3.5 Socio-economic Pressures

On the positive side, the growth of multiple lodges creates employment, training opportunities, and revenue for conservancies. However, cumulative socio-economic effects may include increased competition for natural resources, inflation of local prices, and shifts in traditional livelihood

patterns. If unmanaged, these pressures could increase the vulnerability of poorer or landless households.

10.3.6 Mitigation and Management Measures

- Develop a joint tourism traffic code of conduct for boat speeds, noise reduction, and visitor behaviour, in collaboration with other operators in the Mayuni Conservancy.
- Ensure all water abstraction permits are registered and collectively assessed by the Ministry of Agriculture, Water and Land Reform to avoid cumulative drawdown.
- Incorporate landscape-level planning with Bwabwata National Park and Mayuni Conservancy management plans, including coordinated siting and buffer management.
- Establish a collective wastewater monitoring program, with regular water quality testing results shared among operators and MEFT.
- Support community benefit-sharing frameworks that ensure revenues are equitably distributed and mitigate inflationary effects in local markets.

The cumulative impacts of tourism development in the Kwando River floodplain are significant and require coordinated management beyond the scale of a single facility. Addressing these impacts through cooperative monitoring, conservancy-level planning, and strict compliance with existing regulations will help ensure the sustainability of tourism in this sensitive wetland ecosystem.

11. Mitigation and Management Measures for Construction and Operational Phases

Mitigation will focus on low-impact site design, minimising vegetation clearance, enforcing strict water conservation, controlling boat speeds near sensitive wildlife, and implementing a rigorous waste management plan. Wildlife-friendly operational protocols will be followed to avoid disturbance to local species. The following mitigation measures are applicable for this project:

11.1 Mitigation Measures – Construction Phase

11.1.1 Land Use Change & Habitat Loss

Objective: Avoid unnecessary clearance and protect protected species such as Baikiaea plurijuga.

- Pre-construction vegetation survey: Engage a qualified botanist to mark all protected trees within the site before clearing begins (Nature Conservation Ordinance No. 4 of 1975).
- Physical boundary demarcation: Install robust temporary fencing (minimum height 1.2 m) with hazard tape to mark "no-go" areas; to be in place 2 weeks before clearing and maintained for the full construction period.
- Vegetation clearance limit: Clearance area to be restricted to the approved site plan; any additional clearing requires written approval from the Environmental Control Officer (ECO).
- Tree protection zone: Establish a minimum 5 m radius around the drip line of retained trees; no excavation, storage, or traffic within this zone.
- Rehabilitation timeline: Begin replanting/rehabilitation within 14 days of works in each section being completed; use locally collected indigenous species only.

11.1.2 Soil Disturbance & Erosion

Objective: Minimise erosion and retain topsoil for post-construction rehabilitation.

- Topsoil management: Strip top 150 mm of soil from all work areas before excavation; store in stockpiles <1.5 m high to prevent compaction; cover with geo-textile or vegetation to prevent erosion.
- Erosion control: Install silt fences (geo-textile fabric, 0.5 m height, anchored 0.2 m below surface) along all drainage lines and at site boundaries adjacent to wetlands before works begin.
- Storm preparation: ECO to inspect and confirm erosion control structures before each rainy season and after major rainfall (>20 mm/24 hrs).
- Access routes: Limit all vehicle access to pre-approved tracks marked with reflective poles at 20 m intervals.

11.1.3 Surface Water Contamination

Objective: Prevent any contamination of the Kwando River and associated wetlands.

- Wetland buffer: Maintain a minimum 50 m buffer between all fuel, oil, and chemical storage and the high-water mark of any waterbody.
- Bunded fuel storage: All fuel tanks (>200 L) to be placed in bunded areas with impermeable lining; bund capacity to be 110% of largest container.
- Refueling protocol: Only refuel in designated area lined with 200 µm HDPE plastic sheeting and sand bunds; no refueling within 50 m of wetlands.
- Spill kit availability: At least two complete spill kits (absorbent pads, booms, PPE, disposal bags) to be available on site at all times; ECO to train all machine operators in use.

11.1.4 Groundwater Contamination

Objective: Prevent infiltration of pollutants into the shallow aquifer.

- Sanitation facilities: Provide chemical toilets with sealed containment tanks; minimum ratio 1 toilet per 15 workers; waste to be removed weekly by a licensed service provider.
- Hazardous waste storage: Store all oils, lubricants, and hazardous materials on raised pallets over an impermeable drip tray or slab; no direct contact with bare soil.
- Prohibited practices: No washing of vehicles or machinery on unlined ground; all wash areas to have lined collection sumps.

11.1.5 Disturbance to Fauna

Objective: Avoid wildlife injury, displacement, and behavioral disruption.

- Speed restriction: Enforce maximum speed limit of 30 km/h on all access and internal roads; display speed limit signage at 200 m intervals.
- Night work ban: No construction work between 19:00 and 06:00 unless written approval is granted by the ECO; if unavoidable, use downward-facing, shielded LED lights (<3000K) to minimise light spill.
- Wildlife interaction rule: Workers prohibited from feeding, chasing, or photographing wildlife at close range; violations to result in removal from site.
- Fauna crossings: Maintain at least two 20 m-wide undisturbed corridors linking floodplain vegetation during the construction period.

11.1.6 Waste Generation (Construction Workforce)

Objective: Ensure all waste is safely removed and does not attract wildlife.

- Waste storage: Provide clearly marked 240 L wheelie bins with lids for general waste, recyclables, and hazardous waste; lids to remain closed at all times.
- Waste removal frequency: Remove all waste from site at least twice weekly to an MEFT-approved disposal facility.
- Food waste control: Food waste to be stored in wildlife-proof containers and removed daily; no food scraps to be buried or burnt on site.

11.1.7 Cultural Heritage Disturbance

Objective: Protect all archaeological and cultural heritage resources.

- Chance finds procedure: If graves, artifacts, or sacred sites are discovered, immediately halt work in a 50 m radius; notify the National Heritage Council within 24 hrs; resume only after clearance.
- Known sites protection: Any pre-identified sites to be fenced with 1.2 m-high barrier and signposted "Cultural Heritage – No Entry".

11.2 Mitigation Measures – Operational Phase

11.2.1 Hydrological Changes

Objective: Maintain the natural flood regime and prevent obstruction of wetland water flow.

- Infrastructure placement: No permanent structures to be constructed within the 50 m riparian buffer zone unless approved by MEFT and designed with culverts or raised boardwalks to maintain flow.
- Culvert specifications: Minimum culvert diameter 600 mm, positioned to match natural drainage lines; inspect and clear debris monthly during the wet season.
- Flood monitoring: Install flood level gauge adjacent to site; ECO to record flood heights monthly and after major events.
- Annual review: Conduct a hydrological assessment annually to check for altered flow patterns; adjust structures as necessary.

11.2.2 Wildlife Mortality & Displacement

Objective: Minimise wildlife collisions, entanglement, and habitat avoidance.

- Speed limits: Enforce max. 30 km/h on all internal roads and 20 km/h within 500 m of wetland edges; install speed humps at key wildlife crossing points.
- Wildlife corridors: Maintain two unfenced 20 m-wide vegetated strips linking riparian habitat to upland woodland; no construction or parking in these corridors.
- Visitor behavior controls: All visitors to receive an induction briefing on wildlife safety; no feeding or approaching animals closer than 50 m.
- Lighting control: Use low-intensity (<3000K), shielded LED lighting; switch off exterior lights after 22:00 unless for safety patrols.

11.2.3 Waste Generation (General Operations)

Objective: Prevent littering, pollution, and attraction of problem wildlife.

- Segregation: Provide separate, clearly marked wildlife-proof bins for recyclables, general waste, and hazardous waste; lids must remain closed at all times.
- Removal schedule: Waste to be removed from site to MEFT-approved facility at least twice weekly; hazardous waste to be removed monthly or sooner if full.

- Recycling program: Establish agreements with recyclers for glass, plastic, and aluminium; track quantities removed.

11.2.4 Sewage System Waste Generation and Disposal *(Key Sensitivity)*

Objective: Prevent nutrient enrichment, pathogen contamination, and groundwater pollution.

- Treatment system design: Sewage treatment plant or septic tanks must comply with Namibian General Effluent Standards (GN 363 of 2012).
- Buffer zone: All sewage infrastructure to be located >100 m from any permanent or seasonal waterbody and outside the 1:50-year floodline.
- System capacity: Design for 150% of peak expected load to prevent overflows during high occupancy.
- Effluent monitoring:
    - Monthly testing for E. coli, total coliform, pH, turbidity, nitrates, and phosphates before discharge.
    - Maintain results in a compliance register accessible to MEFT inspectors.
- Sludge management:
    - De-sludge tanks every 12–18 months (or sooner if sludge volume exceeds 50% tank capacity).
    - Dispose of sludge only at a licensed landfill; keep disposal receipts.
- Screenings/grit disposal: Remove screenings weekly; store in sealed containers until taken to landfill.
- Flood contingency: Install back-flow preventers to prevent floodwaters entering treatment units; ECO to inspect before every rainy season.
- Emergency response: In the event of a system failure, cease discharge immediately, deploy portable toilets, and notify MEFT within 24 hrs.

11.2.4a Boat Game Rides – Noise and Wake Disturbance

Objective: Minimise disturbance to aquatic and riparian fauna.

- Limit boat trips to daylight hours only (06:00–18:00).
- Use four-stroke outboard engines or electric motors to reduce noise and emissions.
- Maintain minimum distance of 30 m from hippos, crocodiles, and large mammals in the water; 50 m from nesting waterbirds.
- Adhere to max. speed of 5 knots within 200 m of shorelines or islands to reduce wake erosion.
- Establish no-go zones in sensitive breeding areas identified by MEFT and the conservancy.

11.2.4b Mukolo Canoe Excursions – Wildlife Disturbance

Objective: Avoid stress or displacement of sensitive species.

- Guides to undergo wildlife sensitivity training prior to conducting trips.
- Maintain 25 m minimum approach distance to all birds and mammals; never enter reed-beds or nesting colonies.
- Limit group sizes to max. 4 canoes per excursion to reduce disturbance.
- Restrict canoe trips in papyrus channels during peak bird breeding season (Nov–Feb).

11.2.4c Guided Game Drives – Road Disturbance

Objective: Prevent soil degradation and wildlife disturbance.

- No off-road driving unless authorised for specific sightings by park management.
- Limit daily vehicle movements to designated park/conservancy routes.
- Maintain max. speed of 25 km/h inside national parks and 30 km/h in the conservancy.
- Implement dust suppression measures (e.g., scheduling drives when soil moisture is higher) on sandy tracks near settlements or sensitive habitats.

11.2.4d Birdwatching – Disturbance to Nesting Areas

Objective: Protect breeding birds and maintain ecological integrity.

- Identify and map key nesting areas with input from local bird experts.
- Maintain 50 m buffer zone around all active nests and colonies.
- Prohibit use of playback calls or flash photography during breeding season.
- Group size limit: max. 8 people per birdwatching walk or boat trip.

11.2.4e Nature Walks – Trampling of Vegetation

Objective: Minimise physical damage to ground cover and sensitive plant species.

- Use established walking paths; create boardwalks in heavily trafficked or sensitive wetland areas.
- Group size limit: max. 10 guests per guide.
- Avoid nature walks during peak wet season flooding to prevent damage to saturated soils.
- Guides to instruct visitors on avoiding trampling of seedlings and ground nests.

11.2.4f Catch-and-Release Fishing – Handling Stress to Fish

Objective: Ensure sustainability of the Kwando River fishery.

- Only use barbless hooks and approved tackle types.
- Handle fish with wet hands or rubberised nets to reduce slime loss; keep fish out of water for <30 seconds.

- Enforce catch-and-release for all species; no fish to be retained.
- All fishing guides to be trained in species identification, handling techniques, and gear disposal.
- Prohibit fishing in designated spawning areas during breeding season (Dec–Feb).
- Provide sealed bins for discarded fishing line and tackle to avoid wildlife entanglement.

11.2.5 Disturbance from Visitors

Objective: Maintain low-impact tourism presence in a sensitive biodiversity area.

- Noise limits: No amplified music or noisy activities within 500 m of the river; quiet hours from 22:00–06:00.
- Viewing distances: Establish marked wildlife viewing areas; no boat approaches closer than 30 m to hippos, elephants, or nesting birds.
- Visitor group size: Limit guided groups to a maximum of 10 visitors in sensitive wetland areas at any one time.

11.2.6 Tourism Enhancement (Positive Impact Management)

Objective: Maximise local benefits from tourism growth.

- Local employment: Maintain at least 50% of permanent operational staff from local conservancy membership.
- Local sourcing: Source at least 30% of non-perishable supplies from Zambezi Region businesses where feasible.
- Community engagement: Hold quarterly feedback meetings with local community representatives to discuss tourism impacts and benefits.

11.2.7 Community Benefits

Objective: Ensure equitable distribution of benefits to local communities.

- Revenue sharing: Honour and document revenue-sharing agreements with local conservancies; payments to be made quarterly.
- Capacity building: Provide at least two tourism-related training courses per year for local community members.

Table 11: Environmental and Social Management Plan (ESMP) Summary (Construction and Operation)– Masambala Project

Impact	Mitigation Measures	Responsibility	Timing / Frequency	Monitoring Indicators
Land use change & habitat loss	Conduct pre-construction vegetation survey; mark all protected trees; fence “no-go” areas; restrict clearance to approved footprint; maintain 50 m buffer from wetlands; rehabilitate disturbed areas with indigenous plants within 14 days.	Contractor / ECO	Pre-construction & ongoing	Survey report; demarcation in place; rehabilitation records
Soil disturbance & erosion	Strip & store topsoil (max. 1.5 m high, covered); install silt fences along drainage lines; inspect erosion controls before rainy season; limit vehicle access to marked tracks.	Contractor / ECO	Ongoing; inspect before wet season	Stockpile condition; erosion control maintenance
Surface water contamination	Maintain 50 m buffer for fuel/chemical storage; bund tanks (110% capacity); refuel in lined bunded areas; keep 2 spill kits on site; train operators in spill response.	Contractor / ECO	Ongoing	Bund condition; spill kit availability; training records
Groundwater contamination	Provide sealed chemical toilets (1:15 workers); remove waste weekly; store hazardous materials on impermeable surfaces; no unlined wash areas.	Contractor / ECO	Ongoing	Sanitation logs; storage inspection
Disturbance to fauna	Enforce 30 km/h speed limit; ban night works unless approved; use shielded low-intensity lights; prohibit wildlife interaction; retain 20 m-wide corridors.	Contractor / ECO	Ongoing	Speed signage; lighting checks; wildlife incident log
Waste generation (construction)	Provide wildlife-proof bins; remove waste twice weekly; segregate recyclables; remove food waste daily; no burning/burying on site.	Contractor / ECO	Daily & weekly	Waste storage; disposal receipts
Cultural heritage disturbance	Implement chance finds procedure; stop work within 50 m of find; notify National Heritage Council; fence known sites.	Contractor / ECO	Ongoing	Incident reports; fencing in place
Hydrological changes	Keep permanent structures outside 50 m riparian buffer; install ≥600 mm culverts at drainage points; inspect monthly; maintain flood gauge.	Operator / ECO	Monthly (wet season)	Culvert logs; flood records
Wildlife mortality & displacement	Maintain 30 km/h internal, 20 km/h near wetlands; keep 20 m-wide wildlife corridors; visitor induction; limit lighting after 22:00.	Operator / ECO	Ongoing	Road signage; wildlife incident records; induction logs
Waste generation (operations)	Wildlife-proof bins; remove general waste twice weekly, hazardous waste monthly; licensed waste handler; keep receipts.	Operator / ECO	Weekly/monthly	Waste inspection; disposal records
Sewage system waste generation & disposal	Locate >100 m from water; design to 150% peak load; comply with GN 363/2012; test effluent monthly; de-sludge every 12–18 months; dispose sludge at licensed landfill; flood protection; emergency plan.	Operator / ECO	Monthly tests; annual desludging	Effluent results; sludge receipts; inspection logs

Impact	Mitigation Measures	Responsibility	Timing / Frequency	Monitoring Indicators
Disturbance from visitors	Enforce quiet hours (22:00–06:00); no boats within 30 m of large fauna; limit groups to 10 in sensitive areas.	Operator / Guides	Daily	Visitor logs; guide observation records
Boat game rides – noise/wake disturbance	Daylight hours only; four-stroke/electric motors; 30 m min. from hippos/crocs, 50 m from nesting birds; 5 knots near shore; no-go zones in breeding areas.	Operator / Guides	Daily during tours	Trip logs; GPS track records; wildlife disturbance reports
Mukolo canoe excursions – wildlife disturbance	Wildlife sensitivity training; 25 m min. approach to fauna; max. 4 canoes/trip; avoid papyrus channels in Nov–Feb.	Operator / Guides	Daily	Guide logs; wildlife approach observations
Guided game drives – road disturbance	No off-road driving unless authorised; use designated routes; 25 km/h in parks, 30 km/h in conservancy; dust suppression in dry season.	Operator / Guides	Daily	Vehicle GPS logs; route adherence records
Birdwatching – disturbance to nesting	Map nesting sites; maintain 50 m buffers; no playback calls/flash; max. 8 people per group.	Operator / Guides	Seasonal & daily	Nest maps; visitor group size records
Nature walks – trampling	Use marked trails; boardwalks in sensitive zones; group limit 10; avoid wet season flooding areas.	Operator / Guides	Daily	Trail condition logs; visitor counts
Catch-and-release fishing – fish stress	Use barbless hooks; wet hands/rubber nets; max. 30 sec out of water; enforce release of all fish; guide training; no fishing in spawning areas Dec–Feb; sealed bins for tackle waste.	Operator / Guides	Daily during trips	Fishing logs; tackle disposal checks
Tourism enhancement	Employ ≥50% staff from conservancy; source ≥30% supplies locally; quarterly community meetings.	Operator	Quarterly	Employment records; procurement logs; meeting minutes
Community benefits	Honour revenue-sharing agreements; quarterly payments; at least 2 training courses/year for community.	Operator	Quarterly & annually	Payment receipts; training attendance
Environmental education opportunities	Provide interpretive materials; guided conservation talks; integrate conservation messaging in all tours.	Operator / Guides	Ongoing	Visitor feedback; education materials

In addition to site-specific mitigation measures, the Environmental Management Act (2007) and the EIA Regulations (2012) require consideration of cumulative impacts. The Kwando River floodplain is a sensitive conservation and tourism landscape where multiple facilities operate within the Mayuni Conservancy and Bwabwata National Park.

To address these broader pressures, a standalone cumulative impacts mitigation framework has been developed. This framework focuses on joint management actions, collaborative monitoring, and conservancy-level planning that extend beyond the scale of a single facility. The table below sets out key cumulative impacts, corresponding mitigation and management actions, responsible institutions, and monitoring indicators.

Table 12: Cumulative Impact Mitigation Measures

Cumulative Impact	Mitigation / Management Action	Responsible Party	Monitoring Indicator	Frequency
Tourism pressure and traffic (road & boat)	Develop and enforce a joint code of conduct for boat speeds, wake control, noise reduction, and visitor behavior across all lodges in the Mayuni Conservancy. Limit night boat activities.	Proponent, Mayuni Conservancy, MEFT (Parks & Wildlife)	Adoption of code of conduct; number of compliance checks conducted	Quarterly
Hydrology and floodplain connectivity	Obtain and maintain water abstraction permits; coordinate with other facilities to ensure abstraction levels remain within sustainable limits. Site infrastructure (boardwalks, soakaways) to avoid blocking natural water flow.	Proponent, MAWLR, Conservancy	Valid permits; water level records; evidence of design avoiding hydrological barriers	Annual
Wildlife disturbance and habitat fragmentation	Maintain riparian buffer zones (≥50–100 m where feasible) and avoid clearing of intact woodland. Align site planning with Bwabwata NP and Conservancy zoning plans to retain corridors.	Proponent, MEFT, Conservancy	Buffer integrity; wildlife corridor use (observations, camera traps)	Annual
Wastewater and pollution risks	Install compliant bio-digester or package treatment system; join a collective wastewater monitoring program with neighboring lodges. Share water quality results with MEFT.	Proponent, MEFT (DEA), Conservancy	Water quality test results (nutrients, E. coli, BOD, COD); compliance with GN 363:2012	Bi-annual
Socio-economic pressures	Implement transparent benefit-sharing agreements with the Conservancy. Prioritise local employment and procurement. Collaborate with other lodges to prevent wage/price inflation and exclusion of vulnerable groups.	Proponent, Conservancy Committee	Employment records (gender/youth balance); revenue distribution reports	Annual

12. Monitoring and Reporting Programme

The monitoring program for the Masambala Project aims to ensure that all mitigation measures described in Section 7 are effectively implemented, maintained, and adapted if necessary. The program also provides measurable indicators for evaluating environmental performance, compliance with legal obligations, and the achievement of conservation objectives within Bwabwata National Park.

12.1 Monitoring Objectives

- Verify compliance with the Environmental Management Act, 2007 and EIA Regulations (2012).
- Ensure adherence to site-specific mitigation measures outlined in the ESMP.
- Detect and address any unforeseen environmental or socio-economic impacts at an early stage.
- Provide data for adaptive management and continuous improvement of environmental performance.
- Facilitate transparent communication with regulatory authorities, the park management, and local communities.

12.2 Monitoring Plan

Table 13: Monitoring Plan - Table

Impact / Activity	Monitoring Indicator	Method	Frequency	Responsibility	Reporting
Land use change & habitat loss	No-go areas demarcated; protected trees marked; rehabilitation success	Site inspection; photo records; vegetation survey	Pre-construction & quarterly during construction	ECO / Contractor	ECO monthly report to MEFT & Conservancy
Soil disturbance & erosion	Integrity of topsoil stockpiles; erosion controls functional	Visual inspection	Monthly & before rainy season	ECO / Contractor	ECO monthly report
Surface water contamination	Fuel storage bund condition; spill kit availability; spill incident log	Visual inspection; checklists	Monthly	ECO / Contractor	ECO monthly report
Groundwater contamination	Sanitation facilities in use; hazardous	Visual inspection; record	Monthly	ECO / Contractor	ECO monthly report

Impact / Activity	Monitoring Indicator	Method	Frequency	Responsibility	Reporting
	storage on impermeable surfaces	review			
Disturbance to fauna	Wildlife incident log; speed signage in place	Visual inspection; incident reports	Monthly	ECO / Contractor	ECO monthly report
Waste generation (construction)	Waste bins available; waste removal receipts; recycling records	Visual inspection; document review	Weekly	ECO / Contractor	ECO monthly report
Cultural heritage disturbance	Chance find procedure available; fenced heritage sites	Visual inspection	Ongoing	ECO / Contractor	ECO monthly report
Hydrological changes (operation)	Riparian buffer intact; culverts unobstructed; flood gauge readings	Visual inspection; water level logging	Monthly (wet season)	ECO / Operator	ECO quarterly report
Wildlife mortality & displacement (operation)	Wildlife corridors maintained; incident reports	Visual inspection; incident log	Monthly	ECO / Operator	ECO quarterly report
Waste generation (operation)	Waste bin condition; waste removal receipts	Visual inspection; record review	Monthly	ECO / Operator	ECO quarterly report
Sewage system waste generation & disposal	Effluent quality test results; sludge disposal receipts	Lab analysis; record review	Monthly tests; annual desludging	ECO / Operator	ECO quarterly report to MEFT
Disturbance from visitors	Quiet hours respected; group size compliance	Visual observation; guide logs	Weekly	ECO / Guides	ECO quarterly report
Boat game rides – noise/wake disturbance	Distance compliance; speed compliance; GPS trip logs	Visual observation; GPS review	Daily during tours	Guides / ECO	ECO quarterly report

Impact / Activity	Monitoring Indicator	Method	Frequency	Responsibility	Reporting
Mukolo canoe excursions – wildlife disturbance	Wildlife approach distances maintained; group size limit	Visual observation; guide logs	Daily during tours	Guides / ECO	ECO quarterly report
Guided game drives – road disturbance	Route adherence; speed limit compliance	GPS tracking; observation	Monthly	Guides / ECO	ECO quarterly report
Birdwatching – disturbance to nesting	Buffer distances maintained; no playback/flash	Visual observation	Weekly during season	Guides / ECO	ECO quarterly report
Nature walks – trampling	Trail condition; boardwalk maintenance	Visual inspection	Weekly	Guides / ECO	ECO quarterly report
Catch-and-release fishing – fish handling	Barbless hooks; handling time compliance	Observation ; fishing logs	Daily during trips	Guides / ECO	ECO quarterly report
Tourism enhancement	% staff from conservancy; % local procurement	Review HR and procurement records	Quarterly	Operator	Annual sustainability report
Community benefits	Revenue-sharing payments made; training records	Financial audit; attendance registers	Quarterly & annually	Operator	Annual sustainability report
Environmental education opportunities	Education materials available; visitor feedback	Review materials; survey guests	Annually	Operator	Annual sustainability report

12.3 Reporting Requirements

- Monthly internal site report prepared by the Environmental Control Officer (ECO), covering all monitored parameters and compliance status.
- Quarterly environmental performance report submitted to:
    - Ministry of Environment, Forestry and Tourism (MEFT) – Directorate of Environmental Affairs.
    - Bwabwata National Park Management.
    - Local conservancy committees (for transparency on community benefits).

- Annual environmental audit conducted by an independent environmental practitioner, including review of monitoring data, compliance with the ESMP, and recommendations for improvement.
- Incident reporting: Any significant pollution event, wildlife mortality involving a protected species, or cultural heritage disturbance must be reported to MEFT and relevant authorities within 24 hours.

12.4 Adaptive Management

If monitoring results indicate non-compliance or emerging impacts not previously identified, the Operator must:

1. Investigate the cause of non-compliance.
2. Implement corrective actions within agreed timeframes.
3. Update the ESMP with revised mitigation measures.
4. Inform MEFT and stakeholders of the changes.

13. *Conclusion and Recommendations*

The proposed Masambala eco-tourism development, situated within the Mayuni Conservancy and adjacent to the Kwando River in Bwabwata National Park, has been subjected to a comprehensive Environmental Impact Assessment (EIA) in accordance with the Environmental Management Act (Act No. 7 of 2007) and its 2012 EIA Regulations. The assessment has considered both biophysical and socio-economic environments, drawing on site-specific observations, scientific literature, and stakeholder inputs.

The EIA has identified a range of potential impacts associated with the project's construction and operational phases. Key adverse impacts include:

- Land use change and habitat loss during site clearance.
- Soil disturbance and erosion risks.
- Potential contamination of surface and groundwater.
- Disturbance to wildlife, including species of conservation concern.
- Waste generation and improper disposal risks, including from the sewage treatment system.
- Visitor-related disturbance to sensitive habitats and species.

The project also presents several positive impacts, including:

- Local employment creation and skills transfer.
- Revenue generation for the Mayuni Conservancy through tourism fees.
- Enhanced environmental education and awareness among visitors.
- Promotion of low-impact eco-tourism in a biodiversity-rich area.

All identified negative impacts can be effectively mitigated through the application of the Environmental and Social Management Plan (ESMP) and the Monitoring Plan developed as part of this EIA. These plans prescribe detailed, measurable, and enforceable actions for construction and operational phases, in line with national legislation, Bwabwata National Park management objectives, and IFC Performance Standards.

The implementation of these measures will require strict environmental compliance monitoring, capacity building for operational staff and guides, and regular engagement with MEFT, the Mayuni Conservancy, and other relevant stakeholders.

It is therefore the professional opinion of the EAP that, provided the ESMP and Monitoring Plan are implemented in full, the Masambala eco-tourism project is environmentally acceptable and should be authorised through the issuance of an Environmental Clearance Certificate (ECC) by the Ministry of Environment, Forestry and Tourism (MEFT).

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APPENDIX A

CURRICULUM VITAE OF COMPILER

CURRICULUM VITAE – RIAN DU TOIT

Proposed Position: Environmentalist

Firm: Enviro Management Consultants Namibia

Name: Rian du Toit

Date of Birth: 02 February 1971

Nationality: Namibian

Education

- M.A. Environment and Society, University of Pretoria (2015)
- B.A. (Hons) Environmental Management, University of South Africa (2001)
- B.A. Geography, University of Pretoria (1994)

Professional Memberships

- None

Other Training

- ISO 14000 Lead Auditor (SGS), 2004
- FSC Auditor (SGS), 2004

Countries of Work Experience

Namibia, Malawi, South Africa

Languages

Language	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

Employment Record

- 2009 – Present: Owner, Enviro Management Consultants Namibia

•2002 – 2009: Owner, Enviro Management Consultants South Africa

•1996 – 2002: Teacher/Headmaster, Various Private Schools

Detailed Tasks Assigned

•Environmental data collection and analysis

•Compilation of EIAs, ESIAs, EMPs and ESMPs

•Environmental compliance monitoring

•Stakeholder engagement and field assessments

•HSE performance coordination (donor-funded projects)

Work Undertaken that Best Illustrates Capability

15. Selected Project Experience (Comprehensive but Condensed)

2025 Projects

•Rundu Poverty-Oriented Infrastructure Development (KfW) – ESIA & ESMP

•Karibib Poverty-Oriented Infrastructure Development (KfW) – ESIA & ESMP

•Otjiwarongo Municipal Roads Rehabilitation – ESIA & ESMP

•Eco-tourism Campsite, Masambala Island (Mayuni Conservancy) – ESIA & ESMP

•TR1/3 Section B & C + MR98 (Tses–Berseba) – ESIA & ESMP

•Otjiwarongo Streets Rehabilitation – ESIA & ESMP

2024–2025 Projects

•DR3607 Ompundja – Ekangolya (25 km) – ESIA

•Windhoek Non-Motorised Transport Network – ESIA & ESMP

•DR3524 Nakabolelwa – Kasika (35 km) – ESIA & ESMP

•Regional Roads Master Plan (4 Regions) – Strategic environmental assessment

•T0103 + M0098 Upgrades (Hardap & //Karas) – Full EIA & ESMP

•DR3624 Omundaungilo – Omboloka (86 km) – EIA & ESMP

•Ncuma Borrow Pit (Rundu/AMTA Road) – EIA & ESMP

•DR3622 Omukukutu – Omboloka (32 km), DR4119 Omulondo – Oshuuli (16 km) – ESIAs

•D3406/D3444 Nkurenkuru – Nepara (25 km) – EIA & ESMP

2023–2024 Projects

- Malawi M1 Road Rehabilitation Lot 4 (EIB) – HSE Specialist
- MR 1128 Rosh Pinah – Oranjemund – ESIA & ESMP
- T0107 Okahandja – Otjiwarongo (174 km) – Feasibility EIA & ESMP
- T0109 Otavi – Tsumeb (61 km) – Feasibility EIA & ESMP

2018–2022 Projects

- M0074 Grootfontein – Tsumkwe (270 km) – Feasibility EIA & ESMP
- DR3524 Zambezi Region – EIA & EMP
- TR8/4 Rundu – Divundu (179 km) – Feasibility EIA & EMP
- MR27 Keetmanshoop – Aroab – Klein Menasse – Feasibility EIA
- TR3/1 Grunau – Karasburg – Ariamsvlei – Feasibility EIA
- DR3639 Oshikango – Odibo – Edundja – Ondobe – ESIA
- DR1635 – DR1668 Epukiro Route – EIA
- DR3572 Bukalo – Sifua – EIA & EMP

National-Level & Programme Projects

- National Re-Gravelling Programme (SC/DP/RA-16/2019) – ESMP for all national re-gravelling contracts
- Roads Authority Environmental Manual (2012) – Full update & revision
- TR10/1 Rundu – Nkurenkuru (134 km) – EIA, EMP & monitoring
- TR7/1 Okahandja – Karibib – EIA & EMP performance assessment
- District Roads DR3427, DR3448, DR3449 – ESIA & EMP
- Okahandja – Karibib Rehabilitation – EIA & EMP

Sensitive / Strategic Environment Projects

- Walvis Bay – Swakopmund (Dorob National Park) – Feasibility EIA & EMP audit
- Windhoek – Hosea Kutako (TR9/1 & TR6/1) – ESIA & EMP
- Baynes Hydro Power Project Access Road – Full EIA & ESMP
