

Strategic Environmental Management Plan (SEMP)



Community Meeting at the Ondjou Conservancy office in Gam)

Strategic Environmental Assessment (SEA) of the Ondjou Conservancy and Community Forest Core Wildlife Area

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ABBREVIATIONS

DEA	Directorate of Environmental Affairs and Forestry
DoF	Directorate of Forestry
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
MEFT	Ministry of Environment, Forestry and Tourism
SEA	Strategic Environmental Assessment
SEMP	Strategic Environmental Management Plan
TA	Traditional Authority

1. Introduction

A Strategic Environmental Assessment (SEA) is a process and a tool for evaluating the effects of proposed policies, plans and programmes on the natural environment, social, cultural and economic conditions in which decisions are made (IAIA, 2022). Environmental Impact Assessments (EIAs) and SEAs effectively promote sustainable development by mainstreaming the natural environment into socio-economic development and integrating environmental targets into strategic and project-related decision-making (OECD, 2021). SEAs cover a wider range of activities, a wider geographic area and over a longer time span compared to project and site-specific EIAs.

Ondjou Conservancy and Community Forest Core Wildlife area intends to develop various tourism development activities, to ensure compliance with the Ministry of Environment, Forestry and Tourism, they are mandated to carry out a SEA accompanied with an ESMP. However, if overlooked, some development and land use activities may have negative environmental impacts and negative social impacts on the inhabitant communities. To mitigate potential negative impacts, the SEMP is adopted as the tool to assess the potential impacts of proposed land use plans and to guide decision-making of regional development activities. The SEMP aims to ensure that the proposed land uses are environmentally, socially, and economically sustainable (MLR, 2015).

The objectives of the SEMP are to identify, describe and assess:

- All relevant laws and regulations on SEA and ensure that an **Environmental Clearance Certificate (ECC) for the SEA is obtained**
- The likely significant impacts of the current and proposed land use activities on the environment
- Ecosystem services in terms of social, economic, and environmental impact on the inhabitants' livelihoods of Otjozondjupa region.

2. Strategic Environmental Management Plan

2.1. Definition

A Strategic Environmental Management Plan (SEMP) is developed where a SEA framework exists and provides the means to incorporate environmental objectives into development decision-making processes. The SEMP provides a framework for addressing the cumulative impacts of ongoing development activities through a spatial approach to mitigation, monitoring and environmental and social management. The SEA identifies key issues of concern in the region, and the SEMP prescribes a standard approach to project design and mitigation guided by applicable environmental regulations and monitoring requirements (DEAT, 2004).

SEMPs are used by regulators to assess the extent to which a proponent is competent at identifying and addressing environmental and social impacts.

2.2. Purpose

This SEMP outlines the potential impacts associated with tourism development activities in Ondjou conservancy and community core area. It proposes management actions to be implemented by Regional Council and MAWLR in collaboration with relevant stakeholders, to monitor and respond to impacts, risks and opportunities identified in the Strategic Environmental Assessment (SEA).

This SEMP outlines Ondjou's commitment to minimising potential negative impacts, mitigating risks, and enhancing benefits associated with the proposed tourism activities towards the communities and stakeholders in Otjozondjupa Region. The SEMP serves as the implementation and monitoring tool for the SEA, including stakeholder roles and responsibilities.

3. Guidelines and Legal Framework

The SEA was carried out within the parameters of these key legislations and guidelines:

- a) The Namibia Environmental Management Act No.7 of 2007
- b) Guidelines for Strategic Environmental Assessment and Environmental Plan as provided by the Minister of Environment and Tourism in April 2008.
- c) The 2006 Organisation for Economic Co-Operation and Development (OECD)'s Development Assistance Committee (DAC) Guidelines and Reference Series on Applying Strategic Environmental Assessments
- d) The SEA Performance Criteria developed by the International Association of Impact Assessment (IAIA)

The comprehensive legal and policy framework is presented in the main SEA report.

3.1. Environment vs Economic Development

Economic activities such as the construction of roads, railways, housing, schools, hospitals, and supermarkets are vital for development, and hence, activities such as sand mining are inevitable (cannot be avoided).

However, such developmental activities should be conducted in a thoughtful and forward-looking manner. In other words, such developmental activities should consider the future land use after such activity has come to an end. Therefore, to ensure that the land remains valuable for other land uses in the future, rehabilitation should be part and parcel of such developmental activity right from the beginning and throughout the project lifespan.

Namibia's economy is highly dependent on a healthy environment and striking a balance between economic development (e.g. sand mining) and environmental integrity can be a challenge. Therefore, the environment and development sectors should work together and identify synergies.

Development takes place on land (in the environment). The quest for economic development, therefore, requires a trade-off with certain aspects of the environment for development to be realized. For development to take place, some parts of the environment will therefore inevitably be affected. Such impacts should, however, be mitigated/minimised.

Environmental assessments guide the sustainable utilization of natural resources and mitigate negative impacts that would otherwise compromise the environmental integrity and future ecosystem benefits.

3.2. Compliance to the Environmental Management Act

Section 27 of the Environmental Management Act (Act No. 7 of 2007), also known as the EMA, and EIA regulations (Government Notice: 30 of 2012), provide a list of activities that may not be undertaken without an Environmental Clearance Certificate (ECC), known as Listed Activities.

To obtain an ECC, an Environmental Impact Assessment (EIA) should be conducted, and an Environmental Management Plan (EMP) should be developed.

3.2.1. Listed Activities

Listed Activities are activities that have potential to cause significant environmental and social harm, and thus may not be undertaken without an Environmental Clearance Certificate (ECC). This implies that for all listed activities, an Environmental Management Plan – EMP (*for specific activities*) or Strategic Environmental Management plan – SEMP (*for high level strategic plans / programs*) is required.

3.2.2. What is an EIA?

An Environmental Impact Assessment (EIA) is a tool to manage negative environmental impacts that may arise from the proposed development and is aimed at guiding the proposed activities to be more environmentally friendly and to comply with the provisions of the Environmental Management Act (Act No.7 of 2007).

The EIA aims to reduce negative impacts and maximise positive impacts, through the adoption of best environmental practices and the application of the precautionary principle.

3.2.3. EIA Process

An EIA is a systematic process of identifying, predicting, evaluating and mitigating the potential environmental and social effects that may arise from the activities of a proposed project.

3.2.4. EIA Scope

The scope of the EIA exercise is to:

- a) Provide description of the proposed activity;
- b) Describe the affected environment (proposed area),
- a) Identify potential environmental impacts / aspects of concern;
- b) Describe the methodology followed to assess the potential impacts;
- c) Mitigate negative impacts that may arise from the proposed project

3.2.5. What is an EMP?

The Environmental Management Plan (EMP) recommends mitigation measures in order to ensure that the recommended sand mining activities and associated activities are conducted in an environmentally friendly manner.

The EIA Regulations defines a '*Management Plan*' as "*a plan that describes how activities that may have significant impacts on the environment are to be mitigated controlled and monitored.*"

3.2.6. Identification and Mitigation of Impacts

The backbone of the EIA report entails identification of impacts (whether real or perceived) and recommendations on suitable mitigation measures to ensure compliance with the principles of environmental management and highlight risks and measures to ensure an environmentally friendly development.

3.3. Rehabilitation

Rehabilitation is the process of repairing and taking all necessary actions to limit the damage caused by the developmental activity, to minimise potential danger, to make the land suitable for other uses or simply to beautify the affected area (so that it does not become an eyesore). Rehabilitation can also be referred to as the measures taken to repair damaged environments (example refilling of borrow pits with the overburden, re-vegetating, removal of unwanted infrastructure / cleaning up, etc).

The EIA should not only focus on mitigating the impacts of the activity during the active operations, but it should go further and recommend rehabilitation measures at project closure (when activities cease). Rehabilitation measures should not be parked waiting for project closure but should be implemented from the beginning and incrementally throughout the project lifespan.

The rehabilitation plan aims to ensure soil conservation, prevent soil erosion, reduce safety risk (safety for both animals and people, particularly children).

3.3.1. Designing a Rehabilitation Plan

A rehabilitation plan refers to a set of steps or measures to be taken in-order to ensure that negative impacts associated with the development at hand are mitigated. This however requires prior planning and integration of rehabilitation activities throughout the project lifespan. Rehabilitation measures should therefore be taken right from the beginning of the project. The environmental characteristics of an area where a project is located plays a vital role in designing a rehabilitation plan.

3.3.2. Rehabilitation References

Burke, A. (2011). Eleven Steps to Mining Rehabilitation, Windhoek, Namibia

Madyise, T. (2013) Case studies of environmental impacts of sand mining and gravel extraction for urban development, Gaborone, Botswana

3.4. Alternatives

As stipulated in the Environmental Management Act (EMA) and EIA regulations, alternatives should be considered during the project design, to determine if an alternative site (different locality) or alternative project (different activity) would yield better environmental and socio-economic benefits.

4. Strategic Environmental Assessment (SEA)

Impact Assessment Criteria

This section outlines the potential environmental and socio-economic impacts, risks and opportunities associated with the proposed tourism activities as identified during the scoping phases of the SEA.

The full description of the impact assessment method is presented in section 5 of the SEA. The significance of impacts was obtained using the tables below. Only negative impacts with 'High' and 'Very High' significance ratings are considered for monitoring in the SEMP.

The impact matrix below is used to establish the significance of impacts.

Table 4:1. Criteria for assessing the significance of impacts

Likelihood	Magnitude (Severity of Impact)			
	Low	Medium	High	Very High
Definite	Medium	High	Very high	Very High
Very Likely	Medium	High	High	Very high
Fairly likely	Low	Medium	High	Very high
Unlikely	Low	Low	Medium	Medium
Very unlikely	Low	Low	Low	Medium

Table 4:2. Interpreting Impact significance

Significance rating	Description
	<i>Impacts may result in either positive or negative, medium to short term effects, on the social and/or natural environment.</i>
Low	Acceptable impact for which mitigation is desirable but not essential. (Has little to no influence on the decision)
Moderate	Important impacts which require mitigation. Such impacts maybe insignificant by themselves, but in conjunction with other impacts, it may influence the decision/s.
High	Serious impacts which constitute major short / long-term changes to the natural / social environment and will result in severe effects or beneficial results. (Has influence on the decision/s)
Very High	Very serious impact, constitute major short / long-term changes to the natural / social environment and will result in severe effects or beneficial results. (Has influence on the decision/s). Such impacts may result in severe effects, or very beneficial results.



5. SEMP- Recommended Measures

5.1. Cultural Village with Craft Centre in Gam Settlement

Root Cause	Negative Impacts		Rating (significance)
Development activities requiring land clearance, construction, and resource use (unless accommodation infrastructure or sensitive area triggers full EIA).	- Land clearance may lead to loss of vegetation and minor habitat disturbance. - Waste generation (solid waste). - Water usage may stress local water sources - Potential cultural commodification or misrepresentation/displacement.		Moderate (without Mitigation)
			Low (with Mitigation)
Mitigation Measures	Key Performance Indicator (KPI)	Implementation Target (2026 – 2030)	Responsible party
Implement an Environmental Management Plan (EMP) covering waste management, water use efficiency, and habitat protection.	% of project activities implemented under an approved EMP.	EMP fully developed and implemented before project commencement.	Project Proponent / Developer
Ensure culturally sensitive planning and stakeholder engagement with local communities.	Number of stakeholder engagement/consultation sessions held.	At least 4 community consultations per year.	Environmental Control Officer (ECO)
Adopt sustainable construction practices (limit clearance, rehabilitate disturbed areas).	Volume of water consumed vs. efficiency targets.	20% reduction in water use through efficiency measures.	Ministry of Environment, Forestry and Tourism (MEFT)
Promote fair benefit-sharing mechanisms to prevent displacement and misrepresentation.	Ratio of cultural benefits (e.g., jobs, preservation programs) to reported grievances.	100% of cultural activities developed with community participation.	Local Traditional Authorities and Community Representatives

5.2 Otupoko Caves and Fountain (Photographic Tourism)

Root Cause	Negative Impacts		Rating (significance)
Development of tourism-related activities near natural/cultural heritage sites and sensitive ecological/archaeological features.	- Disturbance to natural features and habitats. - Soil erosion or damage to sensitive cave systems. - Waste and litter from tourists. - Potential disturbances to sacred sites or community conflict if local input is not considered.		Very High (Without Mitigation)
			Moderate (With Mitigation)
Mitigation Measures	Key Performance Indicator (KPI)	Implementation Target (2026 – 2030)	Responsible party
Full Environmental Impact Assessment (EIA) prior to development.	% of activities implemented in accordance with approved EIA and heritage management plan.	EIA completed and approved prior to project commencement.	Project Proponent / Developer
Develop a Cultural Heritage Management Plan in consultation with traditional authorities and heritage bodies.	Number of stakeholder consultations conducted.	At least 4 consultations annually with affected communities and heritage custodians.	Ministry of Environment, Forestry and Tourism (MEFT)
Implement waste management and eco-tourism best practices (e.g., designated waste points, “leave no trace” policy).	Volume of waste collected and properly disposed of.	100% compliance with waste management plan.	National Heritage Council
Designate and protect sensitive areas from access (buffer zones, controlled entry).	Number of reported community grievances resolved.	Zero access to restricted heritage/cultural sites.	Local Traditional Authorities



5.3 Upgrading of the Otupoko Campsite

Root Cause	Negative Impacts		Rating (significance)
Upgrading of Otupoko Campsite (may require Basic Assessment if expansion includes accommodation/ablution blocks; otherwise, a site-specific EMP may suffice).	- Dust, noise, and waste during construction. - Pressure on water and energy resources. - Risk of increased traffic and noise		Moderate (Without Mitigation)
			Low (With Mitigation)
Mitigation Measures	KPI	Implementation Target (2026 – 2030)	Responsible party
Develop and implement a site-specific EMP covering dust, noise, and waste management.	Carrying capacity calculated	Maintain livestock numbers below carrying capacity	MAWLR (DAPEES)
Use water- and energy-efficient technologies (e.g., solar power, water-saving fixtures).	Number of livestock at the grasslands	Number of livestock at grasslands does not exceed carrying capacity	Regional Council, Traditional Authorities, conservancy, community forests
Schedule construction to minimize disturbance during peak tourism seasons.	New markets established (e.g. auctions, abattoirs)	Operationalisation of auction kraals to enable farmers to market and sell livestock (bi-annually)	MAWLR (DAPEES), Okapya Livestock Development Centre
Implement traffic and access management plans.	Number and size of reserves grazing areas	At least one grazing area reserved	MAWLR (DAPEES), Regional Council, Traditional Authorities, Okapya Livestock Development Centre



5.4 Controlled Game Drive within the Wildlife Core Area

Root Cause	Negative Impacts		Rating (significance)
Controlled game drives within the Wildlife Core Area (likely requires only an EMP if existing routes are used; new road construction would trigger an EIA).	- Wildlife disturbance. - Soil compaction and erosion from vehicle use. - Pollution from vehicles (fuel leakage, emissions). - Potential conflict with traditional land uses if regulations are poorly managed.		Moderate (Without Mitigation)
			Low (With Mitigation)
Mitigation Measures	KPI	Implementation Target (2026 – 2030)	Responsible party
Prepare and implement a site-specific EMP addressing vehicle management, wildlife protection, and pollution control.	% compliance with EMP and route restrictions.	EMP developed and approved before commencement.	Project Proponent / Tour Operator
Restrict game drive routes to designated paths to avoid habitat degradation.	Number of reported wildlife disturbances/incidents.	Zero unauthorized off-route driving by 2027.	Environmental Control Officer (ECO)
Limit vehicle numbers and driving times to reduce wildlife disturbance.	Average vehicle numbers per day vs. carrying capacity.	Annual reduction in reported wildlife disturbance incidents.	Ministry of Environment, Forestry and Tourism (MEFT)
Train guides and drivers on eco-friendly practices.	Number of local jobs created vs. conflicts reported.	At least 40% of guides and drivers employed from local communities.	Conservancy / Traditional Authorities
Establish conflict resolution mechanisms with local land users.			Local Community Representatives

5.5 Wildlife Safari Lodge

Root Cause	Negative Impacts		Rating (significance)
Development of a Wildlife Safari Lodge (requires an EIA under Namibia's EMA, as lodges are listed under tourism infrastructure developments).	- Habitat destruction due to construction. - Water abstraction and waste disposal issues. - Increased human-wildlife interaction risks. - Risk of land-use conflict and cultural dilution if not community-led.		High (Without Mitigation)
			Moderate (With Mitigation)
Mitigation Measures	KPI	Implementation Target (2026 – 2030)	Responsible party
Conduct a full EIA with biodiversity, water, and waste management components.	% compliance with approved EIA conditions.	EIA completed and approved prior to construction.	Project Proponent / Lodge Operator
Design lodge using eco-friendly principles (minimal footprint, renewable energy, water recycling).	Water usage vs. efficiency targets.	30% reduction in water use through efficiency measures by 2030.	Environmental Control Officer (ECO)
Establish human-wildlife conflict management measures.	Number of human-wildlife conflict incidents reported/resolved.	Zero unresolved human-wildlife conflict incidents.	Ministry of Environment, Forestry and Tourism (MEFT)
Ensure equitable benefit-sharing with local communities.	% of lodge revenue shared with local communities.	At least 50% of lodge workforce recruited locally.	Conservancy / Traditional Authorities
Integrate cultural sensitivity training and participatory management.	Number of local staff trained and employed.	Minimum 10% of annual revenue reinvested into community projects.	Local Communities



5.6 Elephant tracking

Root Cause	Negative Impacts		Rating (significance)
Elephant tracking (likely requires an EMP, provided it does not involve invasive methods such as collaring or darting, and is limited in scope).	- Disturbance to elephants if poorly managed. - Elephants can cause conflict with humans, potentially increasing fears or tensions if not carefully managed.		Moderate (Without Mitigation)
			Low (With Mitigation)
Mitigation Measures	KPI	Implementation Target (2026 – 2030)	Responsible party
Develop and implement an EMP outlining non-invasive monitoring techniques.	% compliance with EMP guidelines.	EMP completed and approved before tracking begins.	Project Proponent / Conservation Organization
Train trackers and guides in elephant behaviour and low-impact monitoring methods.	Number of trackers and guides trained.	100% of trackers trained in non-invasive methods by 2027.	Environmental Control Officer (ECO)
Ensure close coordination with Human-Wildlife Conflict (HWC) management strategies.	Number of elephant disturbance incidents reported.	Zero severe disturbance incidents reported annually.	Ministry of Environment, Forestry and Tourism (MEFT)
Establish clear communication channels with local communities about the purpose and benefits of tracking.	Level of community awareness (measured via outreach sessions or surveys).	At least 2 community awareness/outreach sessions are conducted annually.	Conservancy / Traditional Authorities

6. Conclusion

This SEMP summarises key mitigation measures proposed for key social and environmental issues with impacts rated High and Very High. The SEMP also highlights the key stakeholders who should be involved in or guide the implementation of the proposed mitigation measures. The SEMP is merely a guide, and project-specific EIAs need to be conducted, and Environmental Clearance Certificates obtained before the listed activities can commence.

The Ondjou Conservancy is urged to continually ensure compliance with environmental regulations. Where applicable, Terms of Reference for project-specific EIAs for Listed Activities should be developed, and an EIA Practitioner should be appointed to carry out EIA, develop EMPs, and provide necessary guidance to the Ondjou Conservancy before major projects are implemented.

From the key environmental and social issues identified in the SEMP, the following will require project-specific EIAs and EMPs, and Environmental Clearance Certificates from MEFT:

- a) Otupoko Caves and Fountain (Photographic Tourism)
- b) Wildlife Safari Lodge

6 References

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