ENVIRONMENTAL & SOCIAL MANAGEMENT PLAN (ESMP)

FOR THE UPGRADING OF AN EXISTING & OPERATIONAL RECREATIONAL ENTERTAINMENT CENTRE IN OMUTHIYA COMMUNAL AREA, OSHIKOTO REGION

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ACRONYMS/GLOSSARY

EA Environmental Assessment

EIA Environmental Impact Assessment

ESIA Environmental and Social Impact Assessment

EMA Environmental Management Act

ESMP Environmental and Social Management Plan

ESMMP Environmental & Social Mitigation Management Plan

MoE Ministry of Education

MoE Ministry of Environment & tourism

CBNRM Community Based Natural Resource Management

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction

Special Inn logistics, cc/2017/05491 is the proponent and developer that acquired a portion of land from Omuthiya traditional authority (through the administration of the Chief) through customary allocation to Namibian resident as prescribed by the Namibia Communal Land Reform Act of 2007. The proponent proposes to upgrade the existing & operational recreation centre development on the piece of land he was already allocated. The project is on a 3.37 Hectares of Land. The site is partly developed, the site is not vacant and the recreation centre is operational since 2018.

The project site area is situated within Omuthiya Communal land, located near to the B1 main road, South of the town of Omuthiya about +- 5 kilometres South of Omuthiya Central Business District (CBD). The project site is partly developed and not vacant. The land is zoned communal land suitable for both commercial business, customary use and an application for leasehold through private treaty was approved by the Ondonga Traditional Authority (Chief) and will subsequently be recommended for registration and approval by Ministry of land reform.

1.2 Project area locational jurisdiction

The site falls under the jurisdiction of Ondonga Traditional Authority in Omuthiya Communal area, who have in principle approved the allocation and upgrading of the existing Recreation centre in Omuthiya. Special Inn logistics, cc/2017/05491 was allocated the right of Lease hold to operate the business as well as to upgrade the existing development structures on the site. some Socio responsibility and support agreement were signed upon issuing and approval of the Leasehold between **Special Inn logistics**, cc/2017/05491 and Ondonga Traditional Authority.

The project has already received endorsement (Leasehold). According to the Ohikoto Integrated Rural Land Use Plan, the project site area falls within the residential and tourism zone in which the following Land use activities are permitted: Tourism establishments, Recreational development, General business, General residential activity and livestock grazing. The site has no conservancy restrictions that exists in the area.

Since the Omuthiya Recreation centre has been operational for many years, accordance with Namibia's Environmental Act, Act 7 of 2007, an Environmental Social Management Plan (ESMP) for the development need to be undertaken. The prepared (ESMP) is required to be submitted to MET in order to obtain an Environmental Clearance Certificate (ECC) for the development to proceed and to adhere or comply to different environmental policies and legal frameworks

In Namibia, the management of environmental and social safeguard issues of existing and operational Omuthiya Recreation upgrading and development. Local Small Medium Enterprises (SME) construction is guided by an Environmental and Social Management Framework (ESMF). The purposes of the ESMF are to prevent, where possible avoid and effectively mitigate and manage environmental and social issues that may arise from implementation or operation of the Recreation Centre. This therefore makes it imperative for the owner (Special Inn logistics, cc/2017/05491) to comply with these frameworks and all relevant national environmental laws, by preparing an Environmental and Social Management Plan (ESMP).

1.3 Objectives of the Assignment

The objectives of the Assignment per the Terms of Reference (ToR) were to develop:

• An Environmental and Social Management Plan (ESMP) for the project

1.4 Scope of Work

The scope of work included the following:

- a) Identification of environmental and social impacts.
- b) Description of the characteristics of the impacts magnitude, distribution, duration, significance and who will be affected.
- c) Proposed mitigation and management measures.
- d) Proposed Environmental and Social Management Plan (ESMP) which defines specific actions for mitigations, appropriate monitoring indicators, frequency of monitoring, person(s) responsible for the task and costs.

1.5 Justification for the ESMP

The ESMP, a mitigative plan for impacts created as a result of development interventions has its precedence from several local and international laws and policies. Most notable among these are the Environmental Management Act of 2007, and World Bank Operational Policies. Primarily, the ESMP is to establish and ensure the implementation of a programme of measures and actions for mitigating social and environmental risks and impacts. It is a combination of policies and operational practices designed to prevent impacts whenever technically and financially feasible or to enhance positive beneficial impacts based on the following mitigation hierarchy:

- Avoidance;
- Minimization; and
- Compensation

CHAPTER TWO PROJECT DESCRIPTION

2.1 Introduction

This section outlines the specifics of the project. It gives an overview of existing & operational Omuthiya Recreation Centre where the project resides, the specific project location, facilities, the environmental screening category under which the proposed sub-project falls and the description of proposed works inclusive in the project.

2.2. Overview of Oshana Rest Camp

The project site, is a portion of the Omuthiya Communal land and is 3.37 hectares in size and located few meters from the B1 Main Road and situated approximately -+ 5 Kilometres South from the Omuthiya Central, Business District (CBD). It is estimated that the total capital cost invested and to be invested in the upgrading of the existing development is N\$ 5 million inclusive of town planning statutory processes (subdivision & rezoning), Environmental assessment, land servicing, infrastructure development. The project currently employs about 10 permanent workers and is expected to create about 50 jobs during the upgrading construction phase. It is therefore expected that once the proposed development upgrading is complete, a total of approximately 20-30 permanent jobs will be created once the project upgrading is complete.











Figure 1: On-site project existing infrastructure

The site falls under the jurisdiction of the Ondonga traditional Authority who have also give approval and permission to allow the proposed development upgrading (see consent letter). The project site comprises of open land dry land savannah and partly vegetated areas which has since been disturbed due to emerging business developments around the area. The project site is highly disturbed, with no sensitive vegetation/plant species. The project site has utility services such as water, electricity and sewer (septic tank) as it has been in operation for more than five (5years).

2.3 Current Land Use

The Omuthiya Recreation Centre has been operational since 2018. The project's development has costed the proponent an estimated cost of N\$ 5 million to develop. The recreation tourist facility has the following development infrastructures on the premises:

- Kids skidding playground / kids playing castle
- A small administrative office.
- Swimming pools (kids & adults)
- A Public restaurant & Bar
- Public vehicle parking's and streets

The proponent proposes and/or envisages to construct upgrade the existing project infrastructures to include the following:

- Upgrading /revamping of the existing recreation building (land scaping, tilling, & proper demarcation of recreation sections (with proper sign boards for caution)
- X 8 General Accommodation/guesthouse (self-catering)
- Cinema halls

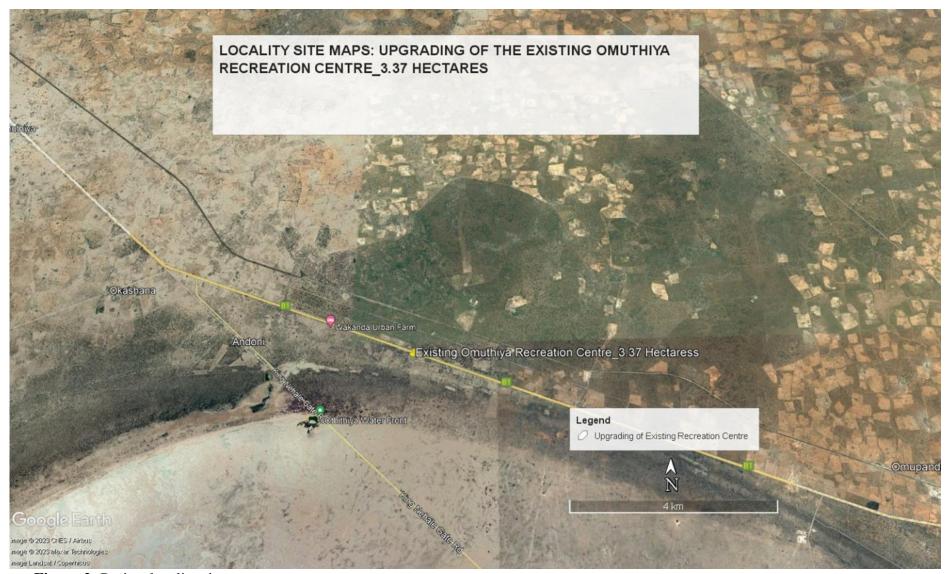


Figure 2: Project locality site



Figure 3: Project site area

2.4 Environmental Screening Category

Based on the Namibian Environmental Act and the World Bank's categorisation and screening result, the process of clearing of land and development of infrastructures such as Oshana Rest camp fall under Category B also known as Schedule 2.

Screening of sub-projects prior to their implementation is a key requirement of the project. According to the environmental Act Operational Manual, screening is carried out to decide whether a sub-project requires assessment or not, and the level of assessment that may be required. Upon screening, a determination is made for the next step and the level of assessment that will be required for each sub-project.

The World Bank (1999) & Namibian Environmental Act of 2007, classifies projects into categories. Category 'A' projects are categorised as highly risky or contentious or complex projects. Such projects require full Environmental and Social Impact Assessment (ESIA) by both the World Bank and the Environmental Management Act of Namibia. Projects are categorised as 'B' according to the World Bank standards if the adverse environmental and social impacts on human populations or environmentally important areas-including wetlands, forests, grasslands, and other natural habitats are less adverse than those of Category 'A' (World Bank, 1999). The impacts of projects under Category 'B' are site specific, a few of them being irreversible, and mitigation measures quite easy to be defined than those of Category 'A' projects.

2.5 Project Location and Proposed Works

The project site is located in the Omuthiya Communal Area. The land or portion will be verified, surveyed and registered by the Ministry of Land Reform in Omuthiya & Windhoek. This project area is land in Omuthiya Communal land, under the jurisdiction of the customary Chief of Ondonga. The size of the portion is 3.37 hectares.

The applicant was then granted permission to lease endorsed by the Ondonga Traditional Authority for the applicant to occupy and lease the land. Few minor works to be executed on the project development include;

• Rehabilitation of old structures

- Renovation and/or upgrading of the old structures
- Maintenance of all existing structures and infrastructures by form of repairing some broken utilities on the properties
- Setting up of additional structures such as accommodation rooms and construction of a cinema hall

CHAPTER THREE POLICY, ADMINISTRATIVE AND LEGAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT IN NAMIBIA

3.1 Introduction

This chapter deals with the legal and policy frameworks as well as the administrative setup for preparing ESMPs in Namibia. the chapter also looks at the existing legal and policy framework for land acquisition and differences between National and World Bank policies.

3.2 Legal and Policy Frameworks

Table below shows the environmental policy and assessment legislations and procedures of Namibia and those of the World Bank, which are relevant to the Project. In principle, the two sets of policies and procedures on environmental and social assessment are similar in many respects.

Table 1: Legal and Policy Frameworks

LEGISLATION/GUIDELINE/P OLICY	APPLICABLE CLAUSE/POLICY	COMMENTS
Namibia 's Environmental	List of activities that require EA.	Tourism facilities need to be
Assessment policy (1995)		assessed in terms of the impact
		on the natural and social
		environmental and resources.
Communal Land Reform Act	List of activities that may not be	Conduct a EA in terms of the
	undertaken without a clearance	tourism development and submit
	certificate:6. tourism	to MET in order for a clearance
	development activities	certificate to be issued.
1994 White paper on tourism	Tourism must provide direct	Emphasis should be on local
(MET 1994)	benefits to local people and aid	benefits from tourism.
	conservation.	
1995 policy on wildlife,	To allow rural communities on	JV agreements with benefits to
management, utilisation and	state land to undertake tourism	local communities should be

tourism in communal area (MET 1995a)	ventures and to enter into cooperative agreements with commercial tourism organisations to develop tourism activities on state land.	negotiated between developers and local conservancies.
Inland fisheries resources act,2003 and regulations	Promotion, sustainable utilisation and protection of inland fisheries resources. Restrictions by limiting number of nets, mesh, sizes, net length and damaging fishing methods.	A fishing licence need to be obtained from the regional office to engage in recreational fishing in any inland waters by means of any regulated fishing gear.
Communal land reform act (act no 5 of 2002)	Allocation of rights in respect of communal land –part 2-right of leasehold. A right to leasehold	Application for the right of leasehold in respect of communal land must be made in the prescribed manner to the CCLB. Right of leasehold granted for

Other relevant legal frameworks related to waste management in Namibia

Framework	Emphasis
Atmospheric Pollution Prevention Act No.	Prevention of pollution of the atmosphere.
45 of 1965	
Basel Convention on the Control of	Environmental sound management of hazardous waste and
Transboundary Movement of Hazardous	other wastes through the reduction of their movements, for
Wastes and their Disposal, 1992	the purpose of reducing their impacts on human health and
	environment
Hazardous Substances Ordinance No. 14 of	Control of toxic substances (including manufacture, use,
1974	disposal, import and export).
Pollution Control and Waste Management	Prevention and regulation of air, water and land
Bill of 1999	pollutants; establishment of an appropriate framework for
	integrated pollution prevention and control, regulation of
	noise, dust and odour, as well as an establishment of a
	system of waste planning and management.
Pollution Prevention Ordinance No. 11 of	Prevention of air pollution.
1976	
Prevention and Combating of Pollution of	Prohibits the discharge of oil from ships, tanker or off-
Sea by Oil Act No. 6 of 1981	shore installation and gives the state certain powers to
	prevent such pollution and deal with removal of oil spills.
Prevention and combating of pollution of	Prevention of sea pollution by oil.
the sea by oil Act 24 of 1991	

UN Convention on the Law of the sea, 1982	Protection and preservation of the marine environment
	including the seabed, ocean floor, subsoil and the resources in the environment.
Water Resources Management Act No. 24	Prevention of water pollution.
of 2004	

CHAPTER FOUR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

4.1 Estimated Cost

The total estimated renovation or upgrading cost on the existing development is N\$ 1,5 million. This figure is based on the current market price and subject to fluctuations. This means that the timely implementation of the project is important if the assembly is to avoid any possible price increases of goods and services.

4.2 Baseline Data

4.2.1 Land Resources

The nature of the land is generally undulating with a flat sandy area. The area is about 200 meters above sea level. The development project area is Recreation centre which is operational for more than 5 years. The facility has access to all required utilities such as power/ electricity, water, roads, liquid waste water septic tank system. The land where the development stands is a disturbed area, where few planted trees and grass exist.

The project site also comprises of open dry land savannah and partly vegetated areas which has since been disturbed due to existing structures and emerging business developments around the area. The project site is highly disturbed, with no sensitive vegetation/plant species.

Electricity power grid

The proponent (Special Inn logistics cc) owns an existing three (3) phase transformer, where power supply to the existing Recreation development is connected. Hence power supply already exists and installed within the project area. *See picture below*. However, the

transformer is being maintained by CENOREDOmuthiya. Special Inn logistics cc is thus only charged for daily usage levy though prepaid meter.



Figure 4: Existing -onsite electrical substation

Water

Water supply to Recreation centre is connected through the Omuthiya water pipeline which is already functional and is under the auspices of the Ministry for Agriculture water and forestry. The pipeline runs adjacent to the B1 main highway road, where as the pipe is located about 10 meters from the recreation project area. The water is suitable for human consumption.





Figure 5: Existing rural water supply connection points along B1Omuthiya road

Roads

The access road to Recreation centre project area can be accessed through the B1 main road. The site is located 15 meters from the B1 main road. A supplementary access gravel road to the site adjoining from the B1highway exist and is in use, hence this makes it easy to access the site. this said road have been in existence for many years, there are no new road network to be created for people to access the site.



Figure 6: B1 Tsumeb-Omuthiya tarred road (Access Road to the project site on the left)

9.3 Sewage Treatment and Disposal

The Recreation centre development consist of an existing large 80 000 L septic tank which was installed about 2 meters underground, it is estimated that the capacity of the septic tank can take about to 20 years for it to reach its fullest capacity. As a result of plans to upgrade the exist structures, the proponent intends to construct an additional 80 000 litre septic tank to supplement and support the new improvements liquid wastes. A liquid waste contraction chemical reduction is often applied and shall continue to be used and stored inside the septic tank to help prevent and minimise septic tank over flow. Alternatively, the proponent intends to approach the Omuthiya Town Council for possible draining of the septic tank on a monthly basis with a certain fee to be paid by the proponent.



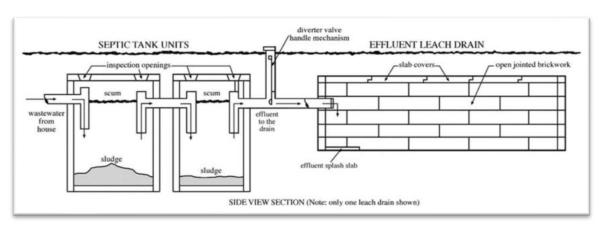


Figure 7: Illustration of the (x) 80 000 Litre septic tank to be installed

4.2.2 Hydrology and Water Resources

The Recreation project area is dominated by light sandy and dry savannah, associated with mopane shrubs. There is no availability of surface water in the area. At the same time, the project area is not prone to flood, hence the underground water levels are uncertain and could only be predicted and/or estimated by the hydrological expertise for water sources.

The Tsumeb- Omuthiya B1 Route Communal area is a highly developed area (with businesses, residential properties) and situated few kilometres from the CBD of Omuthiya. The influx of people from other rural areas to Omuthiya have influenced this significant growth, making the area one of the highly developing communal areas. The area is not surrounded by any streams and rivers; it is a dryland area associated with dry savanna grassland.

4.2.3 Air and Noise

Air and noise pollution in the Omuthiya Communal areas are mostly as a result of the human activities. The B1 highway passes through the semi-densely populated Omuthiya Communal Area. Thus, within the central business district (specifically CBD of Omuthiya), air and noise pollution however is a result of the local transportation and activities. Within the project site, air and noise pollution can be attributed to the activities of the artisans.

4.2.4 Biological Resources

The conservation of biological resources (flora and fauna) should be an investment that will yield benefits locally, nationally and globally for present and future generations. Namibia's policy on biological diversity is to conserve the nation's biological diversity while ensuring that they provide lasting social, economic and environmental benefits to the population through their efficient and equitable use. Since the Omuthiya Recreation centre is operational, therefore no biological destruction is disturbed or affected from the operation of the centre

4.2.4.1 Flora

The type of vegetation in an area determines which animals/birds would survive within that locality. This is because vegetation is indicative of the types of soil, hydrology and climate, which have specific physiological requirements preferred only by certain fauna species. Consequently, Omuthiya recreational project area consists of only limited acacia plant species, moderate species of silver terminalia trees and mopane as the entire area is developed.

4.2.4.2 Fauna

The faunal community structure of any habitat, which is determined by the vegetation of the area, is a strong indication of the past and current ecological processes and anthropogenics at the site. Certain groups of terrestrial animals have been informative in providing clues as to the type of land use changes and the stage of ecological succession within an environment. These include herpetofauna (amphibians and reptiles), avifauna (birds), small and large mammals. Small mammals and herpetofauna are considered key ecological indicators because of features like a high turnover rate and sensitivity to environmental disturbance. This faunal baseline data is as a result of direct observation, refuge examination and informal interviews with the local people.

Subsequently due to the effect of commercial development taking place within Omuthiya Communal area, this have impacted on the geographical movement of wildlife in the area. Therefore, are no Fauna can be observed and/or found in the area or in close proximity to the recreation centre.

4.2.5 Socio-Economic and Cultural

4.2.5.1 Demographic Characteristics

Omuthiya Communal area or settlement area is an area where a mixture of different Oshivambo tribes live. However, the most dominate tribe living within the Omuthiya Communal area are Ndonga Speaking tribe, under the jurisdiction of Ondonga Traditional Authority. There is a small number of marginalized son community living within Omuthiya area, who migrated from Central North (Tsumeb) in search of better living conditions. The Omuthiya area have an approximate population of +-4000 people.

4.2.5.2 Economic Characteristics

There are escalating major economic activities taking place in Omuthiya, this is as a result of high demand increase in development in the area. Most economic activities are proposed within the Omuthiya area because of the short distance from the area to the main town. Mobility is high as people are able to commute from their villages to the town. Omuthiya Communal area have access to rural electricity and rural water supply, making it suitable for more economic development. Agriculture is the main economic activity with tourism becoming increasingly important with direct access from the Etosha National Park via the King Nehale Gate.

4.2.5.3 Cultural Heritage

There are no known areas of cultural/archaeological significance on the project site.

4.3 Analysis of Alternatives

The analysis of alternatives in Environmental Assessments considers practicable strategies that will promote the elimination of negative environmental impacts identified. The EIA Regulations require consideration of the main alternatives to a proposed project and also that the basis of the choice of preferred option made should take into account the environmental effects of these alternatives. The following alternatives have been identified and discussed below.

- Alternative Uses of Sites
- "NO-ACTION" Alternative
- Sub-projects as the Alternative

Alternative Uses of Site: The sites could be developed into other facilities such as school, hostel, clinic, or allowed to be in their current state. However, this subproject was highly ranked by the proponent (Special Inn logistics, cc/2017/05491) for the erection and construction of a recreation centre and accommodation to benefit the tourists and/or local people who need relaxation and accommodation close to town of Omuthiya. Because the sub-project was highly ranked, the OMA considered it as a high impact sub-project in the lives of the inhabitants of the community as well as the entire region. Therefore, other alternative uses were not considered.

"NO-ACTION" Alternative: The "no-action" alternative is required to ensure the consideration of the original environment without any development. This is necessary for the decision-makers in considering all possibilities. There would be no additional positive impact on the social and economic lives of the communities identified if the "No-Action" option is considered.

Sub-projects as the Alternative: The Omuthiya Communal Area has the potential of opening up economic activities in their settlement areas as well as creating jobs for the people. This will translate to an improvement in the revenue capacity of the settlement areas, the region and the country at large. Emphasizing on expanded access to economic activities and job creation are key priorities to the Oshikoto regional council.

4.4 Identification of Potential Impacts

For Omuthiya Recreational Centre, a key goal is to enhance positive and sustainable environmental and social outcomes of the project by minimizing and/or avoiding negative environmental and social impacts. Where avoidance is not possible, an Environmental and Social Management Plan (ESMP) is developed which provides the framework within which the issues can be addressed. This section identifies the environmental and social impacts associated with the execution of the sub-projects so as to provide basis for the development of an action plan for managing the impacts.

4.4.1 Terminology

Table 2: defines the terms used in the description of impacts, to ensure consistency and lucidity.

Term	Definition
Nature of Predicted Impacts	
Neutral	No overall environmental impact.
Adverse	Negative environmental impact.
Beneficial	Positive environmental impact
Significance of Predicted Impacts1	

Insignificant	Impact either too small to be measured or, even if quantifiable, not
	giving rise to any material change in the environment
	Impact capable of causing change in the environment but not
Minor	fundamentally affecting the status, potential productivity or usage of
	the environment
Significant	Impact capable of causing sufficient change in the environment to
	affect the status, potential productivity or usage of the environment
Duration of Predicted Impacts1	
Short term	Impact persisting for six months or less (i.e. during construction
	period).
Medium term	Impact persisting for between six months and two years (i.e. during
	initial operations)
Long term	Impact persisting for longer than two years

The classification of an impact as temporary, short-term or long-term is purely descriptive and does not, of itself imply a degree of significance or acceptability (thus, a temporary impact may also be a significant impact, whilst a long-term impact may be insignificant).

4.4.2 Environmental and Social Impacts

This section summarizes the various potential impacts grouped under land resources, hydrology and water resources, air quality and noise, biological resources, and socioeconomic and cultural resources. The impacts are categorised under each of the aforementioned sections as pre-construction/design and preparation, construction and post-construction/operational impacts

Table 3: Summary of Impacts - Land Resource

Phase	Issue/Activity	Potential Impact	Affected Persons/	Nature	Duration	Significance
			Receptor			
Pre-Construction/	No pre-construction to	Negative/ No Impact	Soils	Insignificant	Insignificant	Insignificant
Design and	be undertaken as Rest					
Preparation	camp buildings are					
	existing					
	No Movement of	Negative/ No Impact	Soils	Insignificant	Insignificant	Insignificant
	earthmoving					
	equipment onto site as					
	Rest camp buildings					
	are existing					
	No Site clearance will	Negative/ No Impact	Soils	Insignificant	Insignificant	Insignificant
	be undertaken site as					
	Rest camp buildings					
	are existing					
Construction	No Generation of	Negative/ No Impact	Local people/soils	Insignificant	Insignificant	Insignificant
	constructional waste					
	will be generated and					
	No Excavated soils or					
	redundant materials					
	will be generated.					

	No Fuel and oil	Soil contamination	Soils	Insignificant	Insignificant	Insignificant
	spillage caused					
Post-	Disposal of unusable	Land degradation:	Local population/soils	Adverse	Medium term	Minor
Construction/	materials and	Health Risk				
Operational	construction elements					
	(metal scraps)					
Operational	Abstraction of community water for	Reduction in community water availability	Water users	Adverse	Short term	Minor
	site water supply					

4.5 Environmental and Social Management Action Plan (ESMAP)

The Environment and Social Management Action Plan (ESMAP) provides mitigation measures and actions required to reduce to acceptable standards the negative environmental and social impacts as well as enhance the positive impacts outlined. It also allocates responsibilities and budget for implementing the mitigative measures. This action plan is not meant to be an exhaustive list of actions and mitigation measures. It takes into account the most relevant considerations based on the site visits, public consultation and literature review. The ESMAP should be treated as an amendable, flexible document and management program that will change or evolve in response to conditions and circumstances over the duration of the Project.

The priorities of this ESMAP should be to: (i) ensure suitable and sufficient training and orientation of employees in order for them to perform their jobs in compliance with sound environmental and social practices, (ii) emphasise sound waste management practices, management of soil erosion, fuel/oil/lubricant handling, storage and spills-prevention procedures (iii) undertake regular verification/monitoring of environmental and social compliance to confirm that the ESMAP is being effectively implemented, and (iv) continue the dialogue with stakeholders to maintain good working partnerships.

Table 4: ESMAP: Land Resources

Phase	Issue/Activity	Potential	Mitigation Measure	Implementing	Budget	Source
		Impact		Responsibility	Estimate	
					(N\$)	
Pre-	No Preconstruction activities to	No Impacts/	No mitigation measures	Special Inn	-	N/A
Construction/	be undertaken as the	Negative	required	logistics cc /		
Design and	development is existing and	Impact		Contractor		
Preparation	operational					
	No Sourcing of construction materials will be undertaken	No Impacts/ Negative Impact	No mitigation measures required	Special Inn logistics cc / Contractor	-	N/A
	No Movement of earthmoving equipment onto site as development is existing	No Impacts/ Negative Impact	No mitigation measures required	Special Inn logistics cc / Contractor		N/A
	No Site clearance will be conducted as the development is existing	No Impacts/ Negative Impact	No mitigation measures required	Special Inn logistics cc / Contractor		N/A
Construction	No Generation of constructional waste to be generated as there is no	No Impacts/ Negative Impact	No mitigation measures required	Special Inn logistics cc / Contractor	-	N/A

	construction work to be undertaken: No Excavated soils and redundant materials to be generated No Fuel and oil spillage to be generated as there will be no construction work to be undertaken.	No Impacts/ Negative Impact	No mitigation measures required	Special Inn logistics cc / Contractor		N/A
Post- Construction/	Disposal of unusable materials and construction elements	Increased run-	1. Installation of	1	4000	Part of
Operational	and construction elements (metal scraps)	off; Soil and land	adequately sized drainage channels to	logistics cc / Contractor		contract
Operational	(metar scraps)	degradation	existing water sources.	Contractor		Sum
	Solid Waste disposal	Pollution	Adequate solid waste containers must be provided for garbage collection disposal. Workers must be instructed to use garbage containers All waste retained on board is to be disposed of by a licensed waste disposal contractor at an approved	Special Inn logistics cc / Contractor		Part of contract sum

		waste site (Omuthiya town		
		council, situated about 8		
		km)		

Table 5: ESMAP: Hydrology and Water Resource

Phase	Issue/Activity	Potential Impact	Mitigation Measure	Implementing Responsibility	Budget Estimate (N\$)	Source
Operational	All Issues	All Impacts	Contractor to Commit to Implementing the ESMP Requirements in Bid Document	Rest Camp Owner / Contractor	1800	Part of contract sum
	Abstraction community water for site water supply	Reduction in Water Availability for community	1. Minimal/no water usage from local water sources from NAMwater rural water supply matters 2. Payment of Water use charges to NAMWATER	Special Inn logistics cc / Contractor	1800	Part of contract sum
	Increase water demand	Increased abstraction	Minimise water usage systems especially during the day	Special Inn logistics cc / Contractor		Part of contract sum
	Effluent water	Contamination of water resources	The existing septic tank must be designed to give a minimum of 24 hours retention of the sewage influent	Special Inn logistics cc / Contractor		Part of contract sum

Table 6: ESMAP: Biological Resources

Phase	Issue/Activity	Potential Impact	Mitigation Measure	Implementing Responsibility	Budget Estimate (N\$)	Source
Pre-	No Pre-construction	Negative/ No	No mitigation measures	Special Inn	-	N/A
Construction/	activities to be undertaken	Impacts	required as there is no	logistics cc /		
Design and	as the Rest camp		preconstruction	Contractor		
Preparation	development is existing		activities			
	No Sourcing of construction materials as development is existing and operational	Destruction of Biological Habitats and natural resource depletion	No mitigation measures required	Special Inn logistics cc / Contractor	-	N/A
	No Site clearance as development is existing	No Destruction of Biological Habitats	No mitigation measures required	Special Inn logistics cc / Contractor		
	No Land Take for Site Residence will be undertaken as development exist and is operational	No Destruction of biological habitats	No mitigation measures required	Special Inn logistics cc / Contractor		
Construction	No Land take for construction will be	No Destruction of biological habitats: No Loss of	No mitigation measures required.	Special Inn logistics cc / Contractor	-	N/A

	undertaken as development exist and is operational No Increased Traffic from construction vehicles will be caused as there is no	ornamental and shady trees No Risk of road kills of local fauna	No mitigation measures required.	Special Inn logistics cc / Contractor		
	No Noise from Site as there will be no construction activity	No Disturbance of wildlife	No mitigation measures required.	Special Inn logistics cc / Contractor		
	No Burning of constructional solid waste to be undertaken	No Destruction of faunal/floral community to be caused	No mitigation measures required.	Special Inn logistics cc / Contractor		
Post-	Change of the natural	Visual Intrusion	Replanting of land	Special Inn	1000	Part of
Construction/	landscape/visual amenity of		within project area.	logistics cc /		contract
Operational	area.			Contractor		sum
	Fires	Destruction of habitat	Open fire to be avoided	Special Inn logistics cc / Contractor	1000	Part of contract sum

Table 7: ESMAP: Socio-Economic and Cultural

Phase	Issue/Activity	Potential Impact	Mitigation Measure	Implementing	Budget	Source
				Responsibility	Estimate	
					(N\$)	
Pre-	No Pre-construction/	Negative/ No	No mitigation measures required as	Special Inn	-	N/A
Construction/	design and	Impacts	there will be no pre-construction	logistics cc /		
Design and	preparation		activities	Contractor		
Preparation	activities to be					
	undertaken as the					
	Rest camp					
	development is					
	existing					
	No Transportation of	No Vehicular	No mitigation measures required as there	Special Inn	-	N/A
	construction materials	accidents: Health	will be no pre-construction activities	logistics cc / Contractor		
	and equipment will be	risk to be caused		Contractor		
	undertaken					
	No Increased Traffic	No Congestion and	No mitigation measures required as there	Special Inn		
	from construction	Accident Risk	will be no pre-construction activities	logistics cc / Contractor		
	vehicles will be caused	caused		Contractor		
	as there will be no					
	construction activities					

Post-	Land take for	Displacement of	1. Compensation/resettlement	Special Inn	quoted	
Construction/	construction	affected persons	assistance for affected persons	logistics cc	separately	
Operation	Increase in Traffic Volume	Congestion and Accident Risk	1. As part of the regular consultation and disclosure program, local people will be informed of the increased traffic and risks associated.	Special Inn logistics cc / Contractor	1500	Part of contract sum
	Work-related accidents and injuries	Occupational Health and Safety	1. Preparation and adherence of a health and safety plan.	Special Inn logistics cc / Contractor		
	Temporary employment for locals	Employment Creation	1. Make employment of local skilled and unskilled labour a priority.	Special Inn logistics cc / Contractor		
	Immigration of workers.	Infection with Communicable Diseases; STD's,	1. Conduct awareness raising campaigns on STD's , especially HIV/AIDS, TB and Hepatitis B.	Special Inn logistics cc / Contractor		
		TB, Hepatitis B.		Namibia Health Service		
	Poor sanitation at Rest camp	Health risk	1. Preparation and adherence to a waste and sanitation plan.	Special Inn logistics cc / Contractor		
Operational	Influx and over	Traffic Accidents:	1. As part of the regular consultation	Special Inn	1200	Rest
	speeding of vehicles	Health risk	and disclosure program, local people	logistics cc /		camp
	towards lorry park		will be informed of the increased traffic and risks associated. 2. Installation of speed humps/beds during construction	Contractor		owner

Completion of Project	Decongestion of	1. Encourage all operators to move to	Special Inn	
	road parking	lorry park	logistics cc /	
	Promotes Local	1. Improve upon revenue collection	Contractor	
	economic			
	development			

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Nyepez Consultancy cc Environmental Consultants