

APPENDIX E

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CHIMELU VALLEY CAMP, IN UIBASEN TWYFELFONTEIN CONSERVANCY, KUNENE REGION.

Proponent

Dimab Development Trust

P.O. BOX 62

Khorixas

Kunene Region

PREPARED BY:



+264 81142 2927

info@greegain.com.na

<https://www.greengain.com.na>

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CLIENT Dimab Development Trust
P. O. Box 62, Khorixas

PREPARED BY Green Gain Consultants cc
P.O. Box 5303, Walvis Bay
Cell: 081 3380114

EAP Joseph Kondja Amushila

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LIST OF ACRONYMS

CLB	Communal Land Board
DEA	Directorate of Environmental Affairs
DWA	Directorate of Water Affairs
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
ESMP	Environmental and Social Management Plan
I&APs	Interested and Affected Parties
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MoEAC	Ministry of Education Arts and Culture
MoHSS	Ministry of Health and Social Services
MoLER	Ministry of Labor and Employee Relations
MWT	Ministry of Works and Transport
Namwater:	Namibia Water Corporation (Pty) Ltd
PHE	Public Health and Environmental Act
TA	Traditional Authority

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

Dimab Development Trust, here referred to as the Developer in joint venture with Chiwani Business Trust, here referred to as Operator, intends to establish a new lodge to be named “Chimelu Valley Camp”. The proposed development site is 31ha in size and is located about 2km east of Dimba pos village. It is a communal land under the #Aodaman Traditional Authority led by Chief Petrus Uukongo. Politically, the proposed land falls under the Khorixas Constituency of Kunene Region. The proposed land also falls under the communal conservancy of the Uibasen Twyfelfontein Conservancy, Kunene Region.

The operator (Chiwani Business Trust) is a renowned tourism operator who are already operating two successful lodges in the Uibasen Conservancy, these are Mowani Mountain Lodge and Lodge Kipwe. The lodge size will be somewhere between that of Lodge Kipwe and that of Mowani Mountain Lodge. The proposed lodge facilities include, main building, luxury suites, service facilities, managers and staff accommodation. The Lodge will also be built as environmentally friendly as possible, to ensure minimal impact on the environment.

The proposed Chimel Valley Camp will consist of the following facilities

- **Main buildings (Luxury tent)** luxury thatched building in fort style look with a lounge, a minibar and equipped with a satellite television and a double bathroom.
- **Guest Rooms:** 12 units with shared bathrooms and 2 luxury suites with private lounge, satellite television and en-suite bathrooms.
- **Service room:** loading and offloading
- **Staff accommodation**
- **Manager’s accommodation:**
- **Open area:** for future development
- **Solar power** (40kilowatts)

1.2 Purpose of the ESMP

The Environmental and Social Management Plan (ESMP) is an environmental tool that is used to ensure that undue or reasonably avoidable adverse caused by the proposed project are minimized or prevented and the positive benefits of the project are enhanced. The ESMP is therefore important for ensuring that the management actions arising from Environmental Impact Assessment (EIA) processes are clearly defined and implemented through all phases of the project life-cycle. All personnel taking part in the establishment and operations of the proposed lodge should be made aware of the contents of the ESMP, so as to plan the relevant activities that the project will include accordingly and in an environmentally sound manner.

The objectives of an ESMP are:

- Ensuring compliance with regulatory stipulations and guidelines which may be local, provincial, national/international.
- Define details of who, what, where and when environmental management and mitigation measures are to be implemented.
- Formulate measures which will mitigate adverse impacts on various environmental components, protect environmental resources where possible, and enhance the value of environmental components where possible; and
- Providing feedback for continual improvement in environmental performance.

2. RESPONSIBILITIES

It is the core responsibility of the proponent to ensure the successful implementation of this ESMP and any condition to be imposed by the competent authority and the Ministry of Environment and Tourism. The implementation of the ESMP also requires the involvement of various role players, each with specific responsibilities to ensure that the development is operated in an environmentally sensitive manner.

2.1 The Proponent

Responsibilities

- a) Implement the final ESMP after approval by MEFT and ensure the project comply with the conditions therein.
- b) Provide for Environmental Training and awareness of the ESMP to all contractors, sub-contractors and employees
- c) Notify MEFT and EAP of any proposed changes to the proposed development
- d) Appoint the responsible person to take the responsibility of the following:
 - Conduct monitoring and review of the on-site environmental management and implementation of the ESMP by the Contractor and sub-contractors.
 - To audit the implementation of the ESMP on a regular basis
 - Compile and submit an Environmental Reports (annually) to the Authority

2.2 Operator

The operator should appoint a project manager who will be delegated to oversee the implementation of the project during the planning & design and construction phases. The project manager will ensure that all contractor and sub-contractors are complying with the content of this ESMP. The project manager must ensure that are contractors, sub-contractors and all employees involved are aware of this ESMP by providing a brief training. The project manager will also keep record of incidences during and take corrective actions i.e. issuing of penalties in case of transgressions etc. during project implementation.

During the Planning & Design and Construction (tender preparation) Phase, the project manager will have the following responsibilities regarding the implementation of this ESMP:

- Ensuring that the necessary legal authorizations have been obtained.
- Developing, managing implementation of and maintaining all Development Guidelines.
- To ensure the contractor sign the ESMP before commencement of the development.

- Ensure that the management requirements inform the planning and design of the relevant infrastructure developments (i.e. that these requirements are considered during the Planning and Design Phase not as an afterthought); and
- Ensure that the management requirements inform the preparation of tender documents for the construction of the relevant infrastructure developments.

During the Construction and Operation & Maintenance Phases the Project Manager shall assist the ECO where necessary and will have the following responsibilities regarding the implementation of this ESMP:

- Ensuring that the necessary legal authorizations and permits have been obtained by the Contractor.
- Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where necessary.
- Management and monitoring of individuals and/or equipment on site in terms of compliance with the ESMP.
- Issuing fines for transgression of site rules and penalties for contravention of the ESMP; and
- Providing input into the ECO's ongoing internal review of the ESMP. This review report should be submitted on a monthly basis to the Proponent.

2.3 The Contractor and Sub-contractors

It is expected that various contractors and sub-contractors will be appointed at various stages and for various tasks during different phases of this project. All appointed contractors and sub-contractors involved in the project shall ensure to comply with the ESMP and its conditions, thus the proponent must ensure that a copy of the ESMP is given to all contractors involved. The contractor upon receiving this ESMP should ensure:

- To undertake their activities in an environmentally sensitive manner and within the context of this ESMP.
- To undertake good housekeeping practices during duration of their activities; and
- To ensure that adequate environmental awareness training takes place in the language of their employees.

2.4 Authorities:

The competent authority through the respective departments, should provide supervisory and monitoring roles in order to ensure compliance to different regulations and municipal by-laws.

a). Uisbasen Twyfelfontien Conservancy

Since the lodge is located and is operating within the conservancy boundaries, the Conservancy has the responsibility to;

- Provide consent regarding the establishment of the lodge
- Enable a smooth working relationship with the lodge in order to realize the benefits associated with the lodge i.e. employment, income generation.
- On behalf of the community, liaise with the lodge management to address community concerns
- Conduct compliance monitoring and evaluation of the lodge operation and performance

Other government ministries such as **Ministry of Environment and Tourism, Ministry of Mines and Energy, Ministry of Labor and Employee Relations, Ministry of Health and Social Services** and many others should also provide necessary assistance in terms of monitoring, supervision, information, or expertise as case maybe which are required for the successful implementation of this EMP. Moreover, the Pollution Control and Waste Management Bill requires a multitude of administering bodies. This bill identified various government ministries namely MAWF, MoHSS, MURD, MLER, MET, MWT and MME, to oversee pollution control and waste management in the country. The identified ministries should continue with their respective duties in cooperation with the proponent and other relevant authorities whenever deemed necessary.

2.5 The Environmental Assessment Practitioner (EAP)

The EAP shall be responsible for the submission of Environmental Reports to the competent Authority (MEFT) and provide additional information on this study whenever required by any party (I&APs, Stakeholders, Authority or Proponent). And also be available to provide training on this EMP on appointment by the proponent. Lastly, the EAP should be available to make amendments or additions to this EMP in accordance with the recommendations of the EIA study.

3. ENVIRONMENTAL MANAGEMENT REQUIREMENTS

The successful implementation of this ESMP is depends on various factors, training and awareness, a good record keeping, enforcements and monthly reporting.

3.1 Environmental awareness training

All employees, contractors and sub-contractors involved in any work at the project should be briefed on their obligation towards environmental protection and methodologies in terms of the ESMP prior to work commencing. The briefing should be done by the proponent prior to any work in the form of an onsite talk. Record of such trainings should be kept.

3.2 Record keeping

There should be an up to date filing system for the project whereby method statements, environmental incidents report, training records, audit reports and public complaints register are kept. It is advised that photographs of the site should be taken as a visual reference. These records should be kept for a minimum of **two (2) years**.

3.3 Enforcements: Non-compliance and penalties

This ESMP upon approval by MEFT shall be considered a legally bidding. In cases of transgressions and non-compliance to the ESMP, the transgressor should be liable to a penalty fine. Transgressions should be recorded in a dedicated register and be filed. The Proponent shall issue the penalties in terms of the severity of the environmental damages.

Adherence to this ESMP during the operation of the project will ensure that the environmental impacts associated with the project will be mitigated to a greater extent thus promoting sustainable development. The commitment and co-operation of the identified responsible person(s) will ensure effective implementation of the ESMP.

3.4 Environmental Reports

The proponent shall, in the project completion report, indicate the environmental performance and matter of incidental. The EAP shall conduct regular monitor of project activities during all project phases and keep records. These records may be required by the competent authority when deemed necessary. .

4. LEGAL REQUIREMENTS

As part of implementation of this ESMP, the proponent must comply with the requirements of various national legislations and municipal by-laws as outlined in the Scoping Report and also briefly presented here below.

Table 1: Applicable National Laws

LEGISLATION	PROVISION AND REQUIREMENTS
Constitution of the Republic of Namibia (1990)	<p>National objectives</p> <ul style="list-style-type: none"> -Guarding against overutilization of biological natural resources, - Limiting over-exploitation of non-renewable resources, - Ensuring ecosystem functionality, - Maintain biological diversity.
Local Authorities Act, No. 23 of 1992 as amended	<p>Provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties and functions of local authority councils; and to provide for incidental matters.</p> <p>According to Section 94 of the Act, the collection and disposal of waste is the responsibility of local and regional authorities. The Act also gives power to the Local Authorities to establish by-laws.</p>
Pollution Control and Waste Management Bill, 2003	<p>This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management.</p> <p>The bill provide framework for a multitude administration on pollution control and waste management in the country. Each authority identified by the bill shall play its respective roles.</p>
Environmental Management Act, No.07 of 2007	<p>Ensuring that the significant effects of activities on the environment are considered carefully and in time. To promote the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment.</p> <p>The proponent shall inform the competent authority of any changes to the proposed school facilities, to see if an EIA is required or not.</p>
Public Health and Environmental Act, 2015	<p>The objectives of the PHE Act are to;</p> <ul style="list-style-type: none"> • Promote public health and wellbeing • Prevent injuries, diseases and disabilities • Protect individuals and communities from public health risks • Encourage community participation in order to create a healthy environment • Provide for early detection of diseases and public health risks <p>Section 2 requires that a). “Every developer must take necessary reasonably and applicably measures to maintain its area at all times in a hygienic and clean condition” b). Prevent occurrence of a health nuisance, unhygienic condition, an offensive condition</p>

	or any condition which could be harmful or dangerous to the health of a person within the area.
Labour Act (No 11 of 2007)	<p>To establish a comprehensive labour law for all employers and employees; to entrench fundamental labour rights and protections. Regulate basic terms and conditions of employment; ensure the health, safety and welfare of employees; to protect employees from unfair labour practices; to regulate the registration of trade unions and employers' organisations; to regulate collective labour relations; to provide or the systematic prevention and resolution of labour disputes;</p> <p>Any employment provided whether by the proponent or by contractor at this site must be in accordance with the Labour Act.</p>
Employment Service Act, 8 of 2011	<p>To provide for the establishment of the National Employment Service; to impose reporting and other obligations on certain employers and institutions; to provide for the licensure and regulation of private employment agencies; and to deal with matters incidental thereto.</p> <p>Any employment provided whether by the proponent or by contractor at this site must be in accordance with the Labour Act.</p>
Water Resources Management Act 2004	<p>This Act provides provision for the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. In addition the Act clearly gives provision that pertain with license or permit that required abstracting and using water as well as for discharge of effluent.</p> <p>The effluent of human waste under this framework is the main focus; the use of mobile toilets during construction phase should be properly positioned. Permanent ablution facilities for the lodge should be connected to the septic tank and a Wastewater discharge permit should be obtained from MAWLR. No discharge of raw wastewater in the open environment is allowed</p>
National Heritage Act 27 of 2004	<p>The Act provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.</p> <p>Any material of cultural, heritage or archaeological importance shall be reported to the National Heritage Council (NHC) in accordance with this Act. The lodge is located within the area of highly sensitive of archaeological and heritage.</p>
National Forestry Act, No. 12 of 2001	<p>This Forest Act 12 of 2001 requires that tree species and any vegetation within 100m from a watercourse may not be removed without a permit (S22 (1)).</p> <p>Ensure compliance to the requirement of this Act to avoid transgression. Protected species observed at the site must be incorporated in the design and be part of the landscape</p>

<p>Atmospheric Pollution Prevention Ordinance, no. 11 of 1976</p>	<p>To provide for the prevention of the pollution of the atmosphere, and for matters incidental thereto. The Ordinance deals with administrative appointments and their functions; the control of noxious or offensive gases; atmospheric pollution by smoke, dust control, motor vehicle emissions; and general provisions.</p> <p>According to the Ordinance, the Local Authority shall control and prevent atmospheric air pollution or emission of noxious or offensive gases by smoke.</p>
<p>Hazardous Substance Ordinance of 1974</p>	<p>This Ordinance provides for the control of toxic substance and thus also relevant for pollution control. It covers for the manufacturing, sale, use, disposal, dumping, importing and exporting of hazardous waste.</p> <p>Any use of hazardous substance must be in compliance with this ordinance</p>
<p>Communal Land Reform Act of 2002</p>	<p>To provide for the allocation of rights in respect of communal land; to establish Communal Land Boards; to provide for the powers of Chiefs and Traditional Authorities and boards in relation to communal land; and to make provision for incidental matters.</p> <p>Consent Letters from the village headman and TA has been obtained. Application for Leasehold from CLB is in process.</p>

5. IMPLEMENTING THE EMP: ROLES AND RESPONSILITIES

The proponent should play a pivotal role in implementing this ESMP. This section provides a manner in which the ESMP is to be implemented and also outlining responsibilities of all parties involved perform their respective roles in accordance with this ESMP.

Table 3: Management Plan: Construction, Operation and Decommissioning Phase

a). Water management	<ul style="list-style-type: none"> • All bathrooms shall be installed with water saving showers heads • No guest should be allowed to wash vehicles at the Lodge • A water meter has been installed to measure month water usage • Keep the daily water consumption at minimum by installing the water-meter 	Lodge Manager
b). Biodiversity management	<ul style="list-style-type: none"> • Only qualified tour guides may be tasked to leads all nature drive tours • Only specific access routes must be used when conducting nature drives • A maximum speed limit of 40km/h within the conserved/protected area • Conversely, noises levels are also limited in the Lodge to avoid psychological negative impact on wildlife and their movement in general. • No littering allowed (always have a refuse bag in the vehicle) • No wild animals may be trapped or killed for any reason whatsoever • No throwing of burning objects off the vehicle (e.g. cigarette butt) 	Lodge Manager
c). Energy management	<ul style="list-style-type: none"> • Commit to the use of renewable energy sources • The gas cooking stove be used in the kitchen • Sustainable harvesting of firewood must be ensured by harvesting invade species and buy ensuring that there are no significant negative environmental impacts associated with the supply of wood. 	Lodge Manager
d). Waste management	<p>a). Sanitation</p> <ul style="list-style-type: none"> • All toilets must be of the flush-type and all must drain into the septic tank • No discharge of sewage waste in the natural environment • Notices must be placed at each toilet to remind guests not to flush foreign objects down the toilet • The overflow from the septic tank should be attended to as soonest • Use bio-degradable toilet cleaners that do not kill the bacteria in the septic tank (various products are available on the market). <p>b). Solid waste</p> <p>The Lodge must adopt a waste management principle (Reduce, Reuse and Recycle)</p>	Lodge Manager

	<ul style="list-style-type: none"> • The amount waste produced can be reduced by purchasing items in large quantity rather than in smaller quantity, e.g. cooking oil, tinned food, cleaning materials) so as to avoid too many empty bottles, tins, etc. • Each guest room/Lodges must be provided with waste collection bins • All waste stored temporarily at the site must be secured in refuse bags to avoid it being blown into the veldt • Different waste types must be stored and dumped separately • All non-combustible waste must be collected from site weekly • In the kitchen a “waste trap” must be placed in the drain where kitchen water flows into. The purpose of this trap is to trap kitchen off-cuts such as scraps of meat, vegetables etc. 	
d). Community Relation	<ul style="list-style-type: none"> • Community relation can be ensured in the following manner • Respecting community rights • No damage to any cultural or archaeological sites • Employing local people as many as possible • Cultural activities are included in tourism programmes • Arrangements must be made before taking guests to villages 	Lodge Manager, Traditional Authority Conservancy
e). Tourism Management	<p>The Lodge management must make sure to make information materials available, in which tourists are informed about:</p> <ul style="list-style-type: none"> • The importance of conserving water • How to be energy efficient • Appropriate pest control (e.g. swot a fly rather than spray insecticide) • Not placing foreign objects down the toilet • Respecting the rights of other guests (e.g. refraining from making a noise, playing radios, musical instruments, etc.) • Noise control, • General health regulations i.e. Smoking in public, etc. 	Lodge Manager

6. ENVIRONMENTAL MANAGEMENT SYTEM (EMS)

An Environmental Management System (EMS) is an internationally recognized and certified management system the organization's environmental programs in a comprehensive, systematic, planned and documented manner. The proponent should develop and implement an EMS for the operation of the lodge. An EMS ensures ongoing incorporation of environmental constraints. With the aim to improve the environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks.

The key elements of an effective EMS are:

- The development of a Safety, Health and Environmental (SHE) Policy, which is a statement of a company's commitment to the environment and can be used as a framework for planning and action.
- An assessment of corporate activities, products, processes, and services that might affect the environment.
- Details of environmental regulations and legislation that apply to the business and how to comply with these.
- Written procedures to control and document activities that could have a significant environmental impact.
- An environmental improvement programme, including policies and procedures to manage waste and resources.
- Defined environmental roles and responsibilities for staff.
- A formal and recorded staff training and environmental awareness programme;
- Systems for internal and external communications on environmental management issues.
- A record of environmental performance against set targets.
- Systems to identify and correct problems and prevent their recurrence.
- Emergency procedures to follow in the event of an environmental incident.
- Periodic audit to verify that the EMS is operating as intended; and
- Formal review by senior management with a view to adapting and improving the EMS, as necessary.

7. EMERGENCY RESPONSE PLAN

The proponent should consider the following emergency plan during the operation phase of the project

Aspect of Danger	Response Plan	Responsibility
Fire	<ul style="list-style-type: none"> • Use available fire extinguishers to fight the fire • Call the Police 067 331775 • Call Khorixas Council Fire Brigade - 067 331 057 • Call Station operator / Proprietor • Workers to assemble at the Fire Assembly Point 	Station Manager on Duty
Oil spills	<ul style="list-style-type: none"> • Call the Police 10111 • Call Khorixas Council Fire Brigade 067 331 057 	Station Manager on Duty
Injuries or loss of life	<ul style="list-style-type: none"> • Apply first Aid • Call the Police 067 331775 • Call for Ambulance Services +264 (61) 203-9111 • Call Station operator / Proprietor 	Station Manager on Duty
Theft or Robbery	<ul style="list-style-type: none"> • Call the Police 067 331775 • Call for Ambulance Services • Call Station operator / Proprietor 	Station Manager on Duty

