



APP 003921

**Environmental Social Management Plan for Brick Manufacturing Project
for Omundaungilo Community Forest, in Omundaungilo Constituency
Ohangwena Region**



CONSULTANT:

Mr. Ipeinge Mundjulu (BSc, MSc)

Red-Dune Consulting CC

P O Box 27623 Windhoek

Cell: +264 81 147 7889

PROPONENT

Omundaungilo Community Forest

P O Box 13088

Eenhana

Namibia



RED-DUNE CONSULTING CC

DOCUMENT INFORMATION

APPLICATION NO:	APP 003921
PROJECT TITLE	Environmental Social Management Plan for Brick Manufacturing Project for Omundaungilo Community Forest
CLIENT	Omundaungilo Community Forest
AUTHOR	Mr. Ipeinge Mundjulu
LOCATION	Omundaungilo Community Forest, Ohangwena Region
Copyright notice; <i>This report and its content is copyright of Red-Dune Consulting CC. Any redistribution or reproduction of part or all the content in an any form other than the intend purpose is prohibited.</i>	

TABLE OF CONTENTS

ACRONYMS.....	i
Executive Summary	ii
1 Overview.....	1
2 Purpose of the ESMP	1
3 Compliance to the ESMP	1
4 Roles and Responsibility	1
4.1 Proponent.....	1
4.2 Site Manager	1
4.3 Workers.....	2
4.4 Environmental Compliance Officer (ECO).....	2
4.5 Disciplinary Action.....	2
4.6 The ESMP table	3
5 Decommissioning Phase	11
6 Conclusions and Recommendations.....	11
6.1 Conclusions.....	11
6.2 Recommendations.....	11

ACRONYMS

CBNRM	Community Based Natural Resource Management
CCFN	Community Conservation Fund of Namibia
DEA	Department of Environmental Affairs
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act (No. 7 of 2007)
ES	Environmental Scoping
ESMP	Social Environmental Management Plan
MEFT	Ministry of Environment Forestry and Tourism
NAFOLA	Namibia's Forested Lands project
PPE	Personal Protective Equipment
RD	Red-Dune Consulting CC

EXECUTIVE SUMMARY

This Environmental Social Management Plan (ESMP) is developed based on the environmental scoping report undertaken for the project.

(a) Introduction and Background

Traditionally, people in the northern regions of Namibia use timber to building their houses. Practiced over centuries, it has caused severe deforestation in many parts of the north. In effort to combat deforestation, the Namibian Government established the programme of Community Forest. The program aims to integrate plant resources with the conservation mandate of the Ministry of Environment Forestry and Tourism and has become an important part of the Community Based Natural Resource Management (CBNRM) concept.

The CBNRM concept is based on the understanding that if natural resources have sufficient value to rural communities, and allow for rights to use, benefit, and manage, then appropriate incentives for people to use natural resources in a sustainable way will be created through the establishment of a Community Forest.

To provide incentives and alternatives material for construction of houses, management of Omundaungilo Community Forest, supported by the Namibia's Forested Lands project (NAFOLA) initiated a community brick making project in 2014 under the theme “*Brick to Conserve*”.

Through a grant application, Omundaungilo Community Forest requested the Community Conservation Fund of Namibia (CCFN) to be supported with establishment of a community brick making project.

(b) Statutory requirement

Section 27(2) of the Environmental Management Act (Act No 7 of 2007) has listed activities that cannot be undertaken without an Environmental Clearance Certificate (ECC). Brick manufacturing is NOT a listed activity. However, the primary inputs of production is sand which requires an ECC.

Consequently, Red-Dune Consulting was appointed to undertake an Environmental Scoping (ES) and develop an Environmental Management Plan (EMP) for the project.

(c) Environmental Social Impact Assessment

The project site has been cleared of small bushes. The sand mining site is located over 300m away from the gravel road. The site borders two homestead which are far away hence they will not be affected by the project activities such as noise and dust. Like the major part of the Omundaungilo, the site has thick sand, when it rains it does not cause run offs which could cause soil erosion and land degradation. Overall, there project will not have an impact on biodiversity and land use.

The project will however be beneficial to the community through employment creation and income generation. Furthermore, the project will encourage community to build their houses using bricks, thus preventing cutting down trees.

1 OVERVIEW

This Environmental Social Management Plan (ESMP) is developed following a comprehensive scoping study that was undertaken for the brick making project of Omundaungilo Community Forest.

2 PURPOSE OF THE ESMP

This ESMP is a risk strategy that contains logical framework, monitoring programme, mitigation measures, and management control strategies to minimize environmental and social impacts. It further stipulates the roles and responsibility of persons involved in the project. These strategies are developed to reduce the levels of impacts for the project.

3 COMPLIANCE TO THE ESMP

This ESMP is a legally binding document under the provisions of the Environmental Management Act, 2007 (Act No. 7 of 2007) to the Proponent.

4 ROLES AND RESPONSIBILITY

4.1 Proponent

Management Omundaungilo Community Forest brick project is the Proponent. Hence it shall take overall responsibility for proper implementation of the ESMP. It remains the responsibility of the Proponent to appoint key personnel for the implementation of the ESMP such as Site Manager and ensure that all workers are conversant with the ESMP.

4.2 Site Manager

The Site Manager (SM) represents the Proponent on site. He/she shall be responsible for daily activities in ensuring environmental protection. All communication regarding the implementation of ESMP must be channelled through the SM.

4.3 Workers

It shall be responsibility of workers to always adhere to the provision of ESMP when on site.

4.4 Environmental Compliance Officer (ECO)

Compliance to EMP is enforced by the environmental inspector as provided for under Environmental Management Act (No. 7 of 2007) (EMA).

4.5 Disciplinary Action

This EMP is a legally binding document, non-compliance to the ESMP is punishable in accordance to the provision of EMA.

4.6 The ESMP table

The ESMP is divided into sections addressing issues of Socio-Economic, Bio-Physical Environment, and Pollution and Waste Generation.

Part I: Socio-Economic Consideration

Environmental / Social Impact	Objectives	Proposed Mitigation Measures	Monitoring Indicator	Party Responsible
Employment opportunities to the locals	Promote benefits to the local community	<ol style="list-style-type: none"> 1. Ensure local are recruited 2. Train and capacitate workers to become experts in brick manufacturing 	Employee structure and proportion of local employment and training record	Management or Site Manager
Worker's induction	To ensure that all workers / workers are familiar with the requirements of the ESMP	<ol style="list-style-type: none"> 1. All workers must go through an induction course for the provision of the ESMP. 2. Ensure that a copy of the ESMP is kept on site and accessible 	Induction Minutes and Attendance Register, Signed by each worker, Physical verification of the ESMP on site	Management or Site Manager

Environmental / Social Impact	Objectives	Proposed Mitigation Measures	Monitoring Indicator	Party Responsible
Alcohol and Drug use	Prevent alcohol and drug use	<ol style="list-style-type: none"> 1. Ban the workers against the use of alcohol and drug at work 2. Provide awareness on the dangers and health impacts of alcohol and drug use 3. All workers must be screen with the breathalyser to avoid intoxicated personnel on site 4. Adopt a disciplinary system to discipline workers for non-compliance 	<p>Monitor presence of alcohol at the construction site</p> <p>Breathalyser report</p>	Management or Site Manager
Working hours	Adhere to the Labour Act No. 11 of 2007	<ol style="list-style-type: none"> 1. Operate within the prescribed working days and hours as per the Namibian Labour laws and regulations 	Verification of working hours against the labour Act	Management or Site Manager
Workers Health and Safety	To ensure workers health and safety	<ol style="list-style-type: none"> 1. Adequate safety signs must be put at designated places. 2. Provide protective eyeglasses, dust masks and ear muffs to all workers 3. Ensure adequate, hygienic (clean) and user-friendly ablution facilities for all workers 	<p>Reports of working outside recommended working hours</p> <p>Physical verification of safe ware for workers</p>	Management or Site Manager

Environmental / Social Impact	Objectives	Proposed Mitigation Measures	Monitoring Indicator	Party Responsible
		<ol style="list-style-type: none"> 4. Segregate Male and female toilets 5. Inspect ablution facilities regularly 6. Train workers/workers on personnel safety and how to handle equipment and machinery 7. Provide an adequate first aid kit to well-trained employee 	Physical verification of ablution facilities	
Heritage and Archaeology	To ensure protection of artefacts, heritage, and archaeological materials	<ol style="list-style-type: none"> 1. Employee must be trained on the possible find of heritage and archaeological material in the area; 2. Implement a chance find and steps to be taken for heritage and archaeological material finding (Heritage (rock painting and drawings), human remains or artefacts) are unearthed by; <ol style="list-style-type: none"> i. Stopping the activity immediately ii. Informing the operational manager or supervisor iii. Cordoned of the area with a danger 	Training records and attendance registers	Management or Site Manager

Environmental / Social Impact	Objectives	Proposed Mitigation Measures	Monitoring Indicator	Party Responsible
		<p>tape and manager to take appropriated pictures.</p> <p>8. Manager/supervisor must report the finding to the following competent authorities, National Heritage Council of Namibia (061 244 375) National Museum (+264 61 276800) or the National Forensic Laboratory (+264 61 240461).</p>		
HIV / AIDS	Provide HIV / AIDS awareness to workers	<p>9. Provide HIV / AIDS awareness at induction</p> <p>10. Avail Condoms at friendly areas on site</p>	Availability of condoms at construction site	Management or Site Manager

Part II: Bio-Physical Environment

Aspect	Objective	Proposed Mitigation Measure	Monitoring Indicator	Party responsible
Land Degradation	To avoid soil erosion	1. Movement of machinery must be coordinated and restricted to be within the site and access roads	Physical Observation	Management or Site Manager
Visual Impact	To prevent eye shore	1. Ensure good housekeeping for material on site	Physical verification	Management or Site Manager
Biodiversity	To protect the flora and Fauna	<ol style="list-style-type: none"> 1. Although the site does not have trees, encourage the planting of shade trees to improve eye sight 2. Do not plant alien trees on site 3. Crawling animals such as lizards may be spotted on site, they must not be killed 4. Install a boundary fence to prevent domestic animal from entering the site 	<p>Planted trees</p> <p>Reports on animal killings.</p>	Management or Site Manager
Dust Pollution	To prevent dust pollution	<ol style="list-style-type: none"> 1. Provide personal protective equipment to workers such as dust mask, ear muff, eye glasses. 2. Do load / offload sand during heavy winds. 3. Cement and concrete must be mixed with concrete mixers and not manually in the open. 	<p>Physical observation</p> <p>Complaints of dust pollution</p>	Management or Site Manager

Aspect	Objective	Proposed Mitigation Measure	Monitoring Indicator	Party responsible
		<ol style="list-style-type: none"> 4. Cement bags must be stored and disposed of properly and may not be shaken in the open. 5. Adhere to the Labour act, non-toxic human dust exposure levels may not exceed 5mg/m³ for respiratory dust and 15mg/m³ for total dust. 	<p>Physical observation of the boundary wall</p> <p>PPE</p>	
Soil Pollution	To prevent soil pollution	<ol style="list-style-type: none"> 1. Fuelling of vehicle on site must be well coordinated at designated places 2. Stationary vehicles must be provided with drip tray to capture oil, lubricants, and hydraulic fluids leakages 3. All machinery must be well service to avoid leakages 	<p>Physical observation of banded fuelling areas</p> <p>Physical observation of drip trays</p>	Management or Site Manager
Water Consumption	To prevent unsustainable high level of water consumption	<ol style="list-style-type: none"> 1. Do not waste water / use water sparingly 	Complaint of water interruption due to the project	Management or Site Manager

Part III: Pollution Control and Waste Management

Environmental / Social Impact	Objective	Proposed Mitigation Measures	Monitoring Indicator	Party Responsible
Oil Leakages	Manage fuels, oils and lubricants leakages from vehicles and machinery to prevent pollution	<ol style="list-style-type: none"> 1. Ensure all vehicle and machinery are well serviced 2. Provide drip trays to stationary vehicle / machinery 	Physical verification and routine monitoring	Management or Site Manager
General waste	To manage solid waste To prevent littering, pollution, contamination of water and general environmental health hazards	<ol style="list-style-type: none"> 1. Provide dust bins for domestic waste collection. 2. There must be ablution facility at the site for designated for males and female. 3. No onsite burying, dumping, or burning of waste material shall be permitted. 4. Used oil, grease and lubricants cans must be collected in appropriate drums and disposed of at an approved site 	Scattered waste, Littering and any other unsightly waste at the site (eyesore)	Management or Site Manager

Environmental / Social Impact	Objective	Proposed Mitigation Measures	Monitoring Indicator	Party Responsible
		5. Ensure appropriate waste collection and removal from the site and dispose at appropriate waste disposal site.		

5 DECOMMISSIONING PHASE

To ensure human safety and the environment, the following must be undertaken at the end of the project life cycle or demolition.

1. Develop a decommissioning and rehabilitation plan
2. Ensure the sand pit / burrow pit is well rehabilitated
3. There must be clear signs to the public about the closure of the project
4. Ensure that all contaminated equipment's are properly cleaned before their disposal
5. The work must be supervised by a qualified and competed person.
6. Workers must be provided with all necessary PPE
7. All wasted generated must be disposed of approved sites
8. Revegetate the area

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The magnitude of this project is small. All possible impacts were found to be low. In anticipation for the project growth, adequate mitigation measures were developed. This is a community project, a great initiative to enhance conservation and limit deforestation.

6.2 Recommendations

It is recommended for the project to be issued with the ECC.