ENVIRONMENTAL
COMPLIANCE CONSULTANCY






ECC-118-269-REP-15-D

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

PROPOSED BIOMASS PROCESSING (RETORT SYSTEM), STORAGE AND PACKAGING PLANT ON FARM GAI //KHAISA NO. 159 OTJOZONDJUPA REGION, NAMIBIA

PREPARED FOR

RETORT CHARCOAL PRODUCERS (PTY) LTD

FEBRUARY 2021

TITLE AND APPROVAL PAGE

Project Name:	Proposed construction and operation of a biomass processing (retort system), storage and packaging plant on farm Gai//Khaisa No. 159, Otjozondjupa Region
Project Number:	ECC-118-269-REP-15-D
Client Name:	Retort Charcoal Producers (Pty) Ltd
Ministry Reference:	NA
Authors:	Lester Harker and Stephan Bezuidenhout
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ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

We welcome any enquiries regarding this document and its content. Please contact:

Stephan Bezuidenhout
Environmental Consultant & Practitioner
Tel: +264 81 669 7608
Email: stephan@eccenvironmental.com
www.eccenvironmental.com

Jessica Bezuidenhout (Mooney)
Environmental Consultant & Practitioner
Tel: +264 81 669 7608
Email: jessica@eccenvironmental.com
www.eccenvironmental.com

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EXECUTIVE SUMMARY

Bush thickening is defined as "the invasion and/or thickening of aggressive undesired woody species (i.e., target spp.) resulting in an imbalance of the grass: bush ratio, a decrease in biodiversity, and a decrease in carrying capacity", causing severe economic losses for Namibia – in both the commercial (freehold) and communal (non-freehold) farming areas. The owners of Gai //Khaisa no.159 intends to utilise the encroacher bush species as raw material for their biomass processing plant. Should this business venture be successful, the utilisation of encroacher bush species for socio-economic purposes and rangeland management will be marketed to neighbouring famers and further afield within the broader region.

The biomass from bush thickening species is seen as a natural resource for downstream value addition industries and energy supply. The thinning of the identified bush thickening species is also seen as a means to improve biodiversity and ecological restoration (NFSS, 2019).

The impacts of bush thinning processes using mechanised means with respect to ecological functioning is considered beneficial as it will be done in a controlled manner and will result in ecological restoration of farm Gai//Khaisa no.159 and restore the land towards more natural conditions.

The impacts of biomass processing using the retort carbonisation system with respect to airborne particle emissions whether it be smoke, dust or gas are expected to be limited to onsite biomass processing and bush thinning activities. There will be some release of exhaust fumes from machinery that will impact the immediate vicinity but will be of short duration. Additionally, there will be ancillary machinery noise, which could be a disturbance to immediate neighbours, but this will be of short duration as well.

Through further investigation, it was determined that the effects from noise are considered to be of minor significance, however with additional mitigation, the significance is reduced to low. The additional mitigation measures include:

- Labour intensive activities will be minimized to allocated daylight working hours;
- Continual engagement with residents shall be undertaken by the proponent to identify any concerns or issues, and appropriate mitigation and management measures shall be further agreed; and
- Noise suppression measures shall be applied if excessive noise occurs in locations that may affect residents.

The study area is located in the Omatako Groundwater Basin. The general direction of the groundwater flow is east and southeast towards the Omatako River. In the west the groundwater potential is less favourable, but it improves towards the east and southeast, and then following the same direction as the Omatako River (Christelis and Struckmeier, 2001). The proposed project will not have significant impacts on the ground and surface water conditions of the area as the

operations will not adversely affect its ability to adapt in a modified form. In essence the proposed bush thinning activities will reduce the pressure on existing water resources.

The overall potential impact of this proposed project is not considered significant as it does not widely exceed recognised levels of acceptable change, does not threaten the integrity of the receptors, and it is not material to the decision-making process. The assessment is considered to be comprehensive and sufficient to identify impacts, and it is concluded that no further assessment is required.

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LIST OF ACCRONYMS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
<	Less than
>	More than
AIDS	Acquired Immune deficiency Syndrome
BE	Bush Equivalent
C	Carbon
COVID19	Corona Virus Disease 2019
DAS	De-Bushing Advisory Services
DB	Distribution Board
DEA	Directorate of Environmental Affairs
E&SDD	Environmental and Social Due Diligence
ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
FSC	Forest Stewardship Council
H	Hydrogen
Ha	Hectares
HIV	Human Immunodeficiency Virus
I&AP	Interested & Affected Parties
IFC	International Finance Corporation
Km/hr	Kilometer per hour

ABBREVIATIONS	DESCRIPTION
Km²	Square kilometer
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
NDP4	National Development Plan four
NFSS	Namibian Forestry Stewardship Standard
NSA	National Statistics Agency
NTFP	Non-Timber forest Products
NTS	Non-Technical Summary
O	Oxygen
ºC	Degree Celsius
PSC	Policy and Standards Committee
S	Sulfur
SOP	Standard Operating Procedure
SQM	Square Meters
St1, St2, St3	Translated from the German word “Staub” which means “Dust”. These abbreviations represent the class of combustible dusts.
TB	Tuberculosis
WHO	World Health Organisation

1 INTRODUCTION

1.1 PROJECT OVERVIEW

Farm Gai //Khaisa no.159 is located approximately 30km south east of the Kombat settlement and 42 km south-west of Grootfontein town and can be accessed via the D2512 district road that branched out from the B8 main road in the Otjozondjupa Region. The necessary bush-thinning activities and construction of the processing (charcoal burning retort system), storage and packaging plant will be operated by the Retort Charcoal Producers (Pty) Ltd company (the proponent).

The proposed project aims thin out encroacher bush species on said farm (project site). Please see the locality map below (Figure 1).

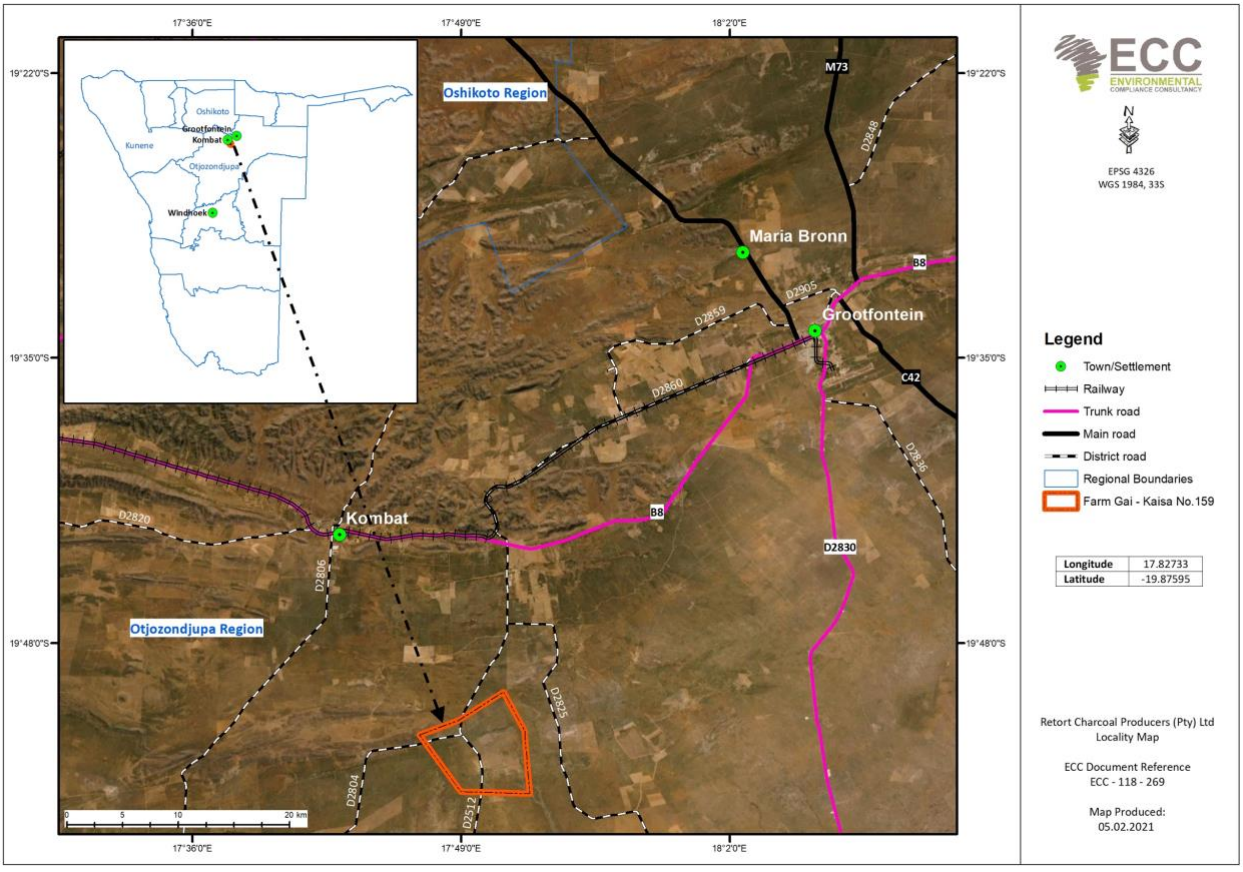


FIGURE 1 - LOCALITY MAP OF FARM GAI //KHAISA

1.2 SCOPE OF WORK

Environmental Compliance Consultancy (ECC) has been engaged by the proponent, to undertake the ESIA and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its regulations.

The purpose of this report is to present the findings of the scoping study for the proposed project. This scoping report has been outlined in terms of the requirements of the Environmental

Management Act, No. 7 of 2007 and its regulations, promulgated in 2012 (referred to herein as the EIA Regulations).

An environmental clearance application will be submitted to the relevant competent authority; the Ministry of Ministry of Environment, Forestry and Tourism (MEFT).

ECC has prepared this report. ECC's terms of reference for the assessment is strictly to address potential effects, whether positive or negative and their relative significance, explore alternatives for technical recommendations and identify appropriate mitigation measures.

This report provides information to the public and stakeholders to aid in the decision-making process for the proposed project. The objectives are to:

- Provide a description of the proposed activity and the site on which the activity is to be undertaken, and the location of the activity on the site;
- Provide a description of the environment that may be affected by the activity;
- Identify the laws and industry guidelines that have been considered in the assessment and preparation of this report, including applicable IFC guidelines.
- Provide details of the public consultation process;
- Describe the need and desirability of the activity;
- Provide a high level of environmental and social impact assessment on feasible alternatives that were considered; and
- Report the assessment findings, identifying the significance of effects, including cumulative effects.

In addition to the environmental assessment, an EMP (Appendix A) is also required in terms of the Environmental Management Act, No. 7 of 2007. An EMP has been developed to provide a management framework for the planning and implementation of exploration activities. The EMP provides exploration standards and arrangements to ensure that the potential environmental and social impacts are mitigated, prevented and/or minimised as far as reasonably practicable, and that statutory requirements and other legal obligations are fulfilled.

1.3 THE PROPONENT OF THE PROPOSED PROJECT

The details of the proponent are set out in Table 1 below.

TABLE 1 - PROPONENTS DETAILS

CONTACT	EMAIL ADDRESS	TELEPHONE
Retort Charcoal Producers (PTY) Ltd	Colin@carboncapital.com.na	+264 81 343 3424

1.4 ENVIRONMENTAL COMPLIANCE CONSULTANCY

ECC, a Namibian consultancy (registration number Close Corporation 2013/11401), has prepared this scoping report and impact assessment on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa, in both the public and private sectors. ECC is independent of the proponent and has no vested or financial interest in the proposed project, except for fair remuneration for professional services rendered.

All compliance and regulatory requirements regarding this ESIA report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy
PO BOX 91193 Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

1.5 ENVIRONMENTAL LEGAL REQUIREMENTS

The Environmental Management Act, No.7 of 2007 stipulates that an environmental clearance certificate is required to undertake listed activities in terms of the Act and its regulations. Listed activities triggered by the proposed project in terms of the Environmental Management Act, No. 7 of 2007 and its regulations are as follows:

TABLE 2 - LISTED ACTIVITIES

LISTED ACTIVITY	DESCRIPTION
WATER RESOURCE DEVELOPMENT	8.1. The abstraction of ground or surface water for industrial or commercial purposes – The abstraction of groundwater is obtained from existing boreholes in the proposed project area. An abstraction permit should be applied for from the Ministry of Agriculture, Water and Land Reform (MAWLR) to abstract water for commercial purposes.
ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES	1. The construction of facilities for – – The generation of electricity – The project will generate electricity through generators.
WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES	2.2. Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976. – The project will generate dust due to the operation of machinery for bush thinning, transporting of biomass and sieving of charcoal. The installation of a dust collector and jet cleaning machine to minimise dust emissions will occur within the plant.

	– Minimum smoke pollution is envisaged to be emitted into the atmosphere, due to all gases released during the carbonisation process which will be fed into the system as fuel (an advantage of retorts). Waste generated during construction, which shall be collected and removed from the site for re-use, recycling, or final disposal at permitted landfill facility. Waste disposal and handling shall comply with waste management specifications as detailed in the Environmental Management Plan.
FORESTRY ACTIVITIES	– The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in terms of the forest Act, 2001 (Act No. 12 of 2001) or any other law.

2 METHODOLOGY AND APPROACH

2.1 PURPOSE AND SCOPE OF THE ASSESSMENT

The aim of this assessment is to determine which impacts are likely to be significant (the main focus of the assessment); scope the available data and any gaps which need to be filled; determine the spatial and temporal scope; and identify the assessment methodology.

Scoping of the ESIA was undertaken by the ESIA team. The scope of the assessment was determined through undertaking a preliminary assessment of the proposed project against the receiving environment obtained through a desk-top review, available site-specific literature, monitoring data and site reports.

ECC's terms of reference for the assessment is strictly to address potential effects, whether positive or negative and their relative significance, explore alternatives for technical recommendations and identify appropriate mitigation measures.

2.2 THE ASSESSMENT PROCESS AND METHODOLOGY

The ESIA methodology applied here has been developed using the International Finance Corporation (IFC) standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012), which establishes the importance of:

- Integrated assessment to identify the environmental and social impacts, risks, and opportunities of projects;
- Effective community engagement through disclosure of project-related information and consultation with local communities on matters that directly affect them; and
- The client's management of environmental and social performance throughout the life of the project

Furthermore, the Namibian Draft Procedures and Guidance for ESIA and EMP (Republic of Namibia, 2008) as well as the international and national best practice; and over 25 years of combined EIA experience, were also drawn upon in the assessment process.

This impact assessment is a formal process in which the potential effects of the project on the biophysical, social and economic environments are identified, assessed and reported, so that the significance of potential impacts can be taken into account when considering whether to grant approval, consent or support for the proposed project.

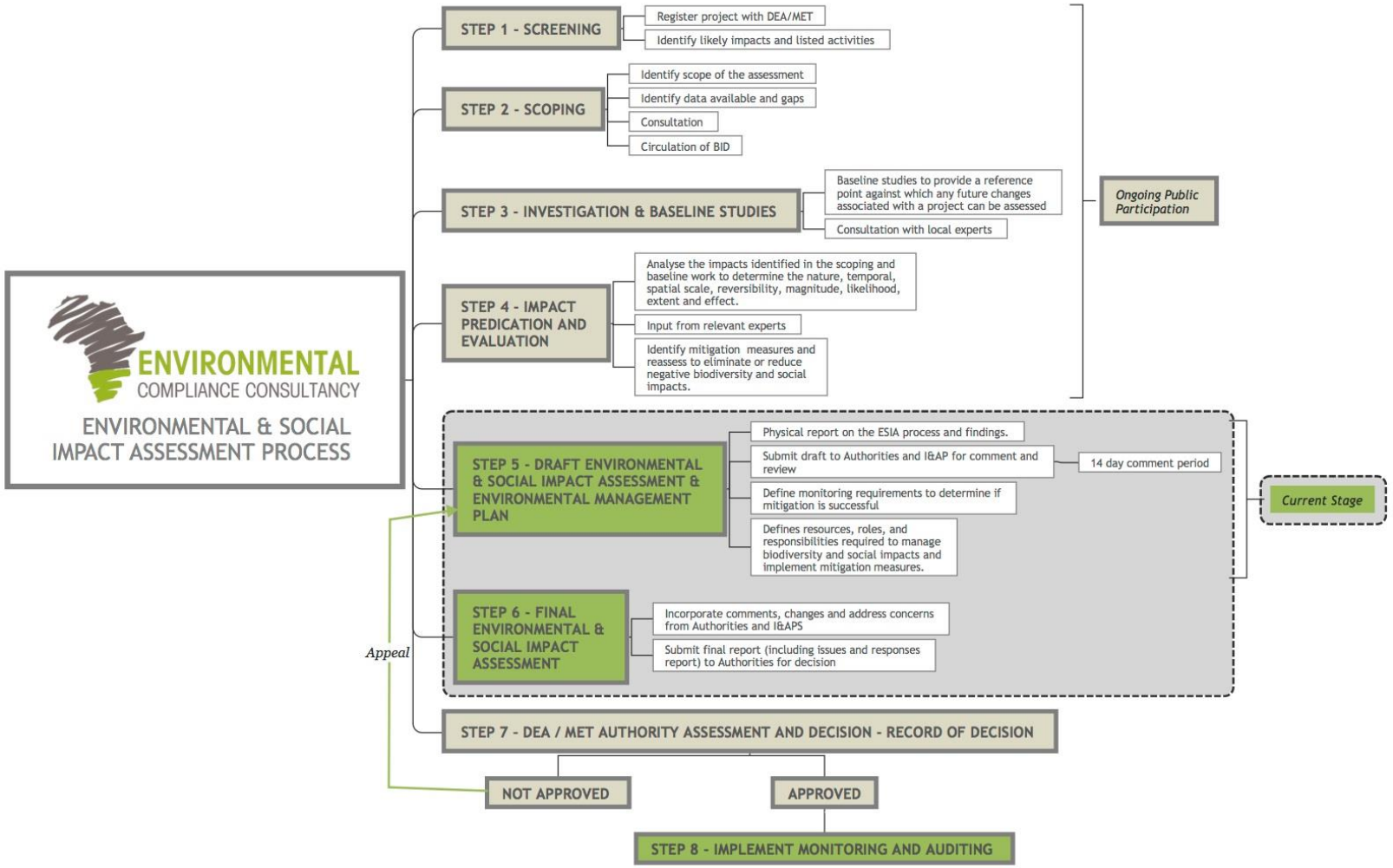


FIGURE 2 - ECC ESIA METHOD

2.3 SCREENING OF THE PROJECT

The first stages in the ESIA process are to register the project with the DEA and undertake a screening exercise to determine whether it is considered as a listed activity under the Environmental Management Act, No. 7 of 2007 and associated regulations and if significant impacts may arise from the project. The location, scale and duration of project activities will be considered against the receiving environment.

It was concluded that an ESIA (i.e., scoping report and EMP) is required, as the proposed project is considered as a listed activity and there may be potential for significant impacts to occur.

2.4 SCOPING OF THE ENVIRONMENTAL ASSESSMENT

Where an ESIA is required, the second stage is to scope the assessment. The main aims of this stage are to determine which impacts are likely to be significant (the main focus of the assessment); scope the available data and any gaps which need to be filled; determine the spatial and temporal scope; and identify the assessment methodology.

The screening phase of the project is a preliminary analysis to determine ways in which the project may interact with the biophysical, social and economic environment. Impacts that are identified as potentially significant during the screening and scoping phases are taken forward for further assessment in the ESIA process. The details and outcome of the screening process are discussed further in sections 6 and 7.

Subsequently, scoping of the ESIA was undertaken by the EIA team. The scope of the assessment was determined through screening the proposed project against the receiving environment obtained through a high-level desktop review. Feedback from consultation with the client and stakeholders also informed this process.

The following environmental and social topics and subtopics were scoped into the assessment, as there was potential for significant impacts to occur:

SOCIO-ECONOMIC ENVIRONMENT

- Employment creation for locals with the availability of approximately 50 jobs;
- Limited goods and services procurement within the local economy; and
- Downstream spending by locals within the region.

BIOPHYSICAL ENVIRONMENT

- Dust Air emissions, including dust from bush thinning activities;
- Soil integrity;
- Terrestrial ecology;
- Terrestrial biodiversity (including fauna and flora); and
- Groundwater (potential cumulative impact). Water management suggestions are contained in the EMP.

HERITAGE

- Two recently dated grave sites were identified on farm Gai//Khaisa no.159 and a graveyard within which one of the graves are located. These sites have a heritage connotation but are not regarded as archaeologically sensitive (Kinahan, 2020).

2.5 BASELINE STUDIES

Baseline studies are undertaken as part of the scoping stage, which involves collecting all pertinent information from the current status of the receiving environment. This provides a baseline against which changes that occur as a result of the proposed project can be measured.

For the proposed project's baseline information was obtained through a desktop study and site visits conducted by specialists, focussing on environmental receptors that could be affected by the proposed project, verified through site-specific information. The baseline information is covered in Section 5.

A robust baseline is required in order to provide a reference point against which any future changes associated with a project can be assessed, and it allows for suitable mitigation and monitoring actions to be identified.

The existing environment and social baseline for the proposed project were collected through various methods:

- Desktop studies;
- Specialist studies (desktop and on-site survey);
- Consultation with stakeholders; and
- Engagement with Interested and Affected Parties (I&APs). See Appendix C.

2.6 IMPACT PREDICATION AND EVALUATION

Impact prediction and evaluation involves predicting the possible changes to the environment as a result of the development/project. The recognized methodology was applied to determine the magnitude of impact and whether or not the impact was considered significant and thus warrant further investigation. The impact prediction and evaluation methodology used is presented in Section 6 of this report. The findings of the assessment are presented in Section 7.

2.7 ESIA CONSULTATION

Public participation and consultation are requirements stipulated in Section 21 of the Environmental Management Act, No. 7 of 2007 and associated regulations for a project that needs an environmental clearance certificate. Consultation is a compulsory and critical component in the ESIA process in achieving transparent decision-making and can provide many benefits.

The objectives of the stakeholder engagement process are to:

- Provide information on the project to I&APs: introduce the overall concept and plan;
- Clarify responsibility and regulating authorities;

- Listen to and understand community issues, concerns and questions;
- Explain the process of the ESIA and timeframes involved; and
- Establish a platform for ongoing consultation.

2.8 INTERESTED AND AFFECTED PARTIES

Farm Gai //Khaisa no 159 is surrounded by several privately owned farms (See figure 4). Two district roads, the D2512 and the D2804, passes through the farm. The two district roads provide direct access to the project site.

The owners of the farms that border the project site were identified as I&APs, as well as the relevant local authority bodies. Other I&APs was identified through invitations such as the newspaper advertisements and site notices.

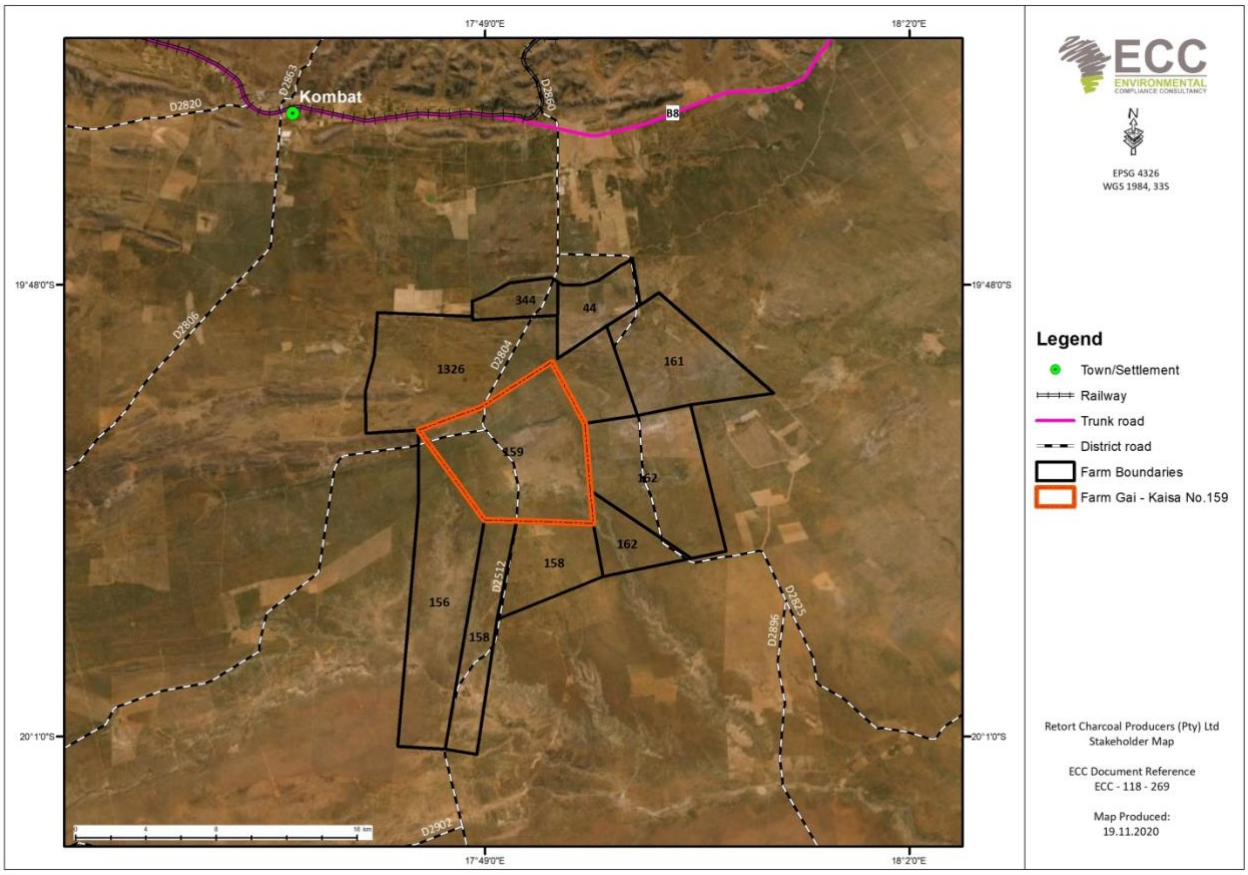


FIGURE 3 – FARM GAI//KHAISA NO.159 SURROUNDED BY SEVERAL FARMS

2.9 SITE NOTICES

A site notice ensures neighbouring properties and stakeholders are made aware of a proposed project. A site notice was set up at the D2804 and D2512 intersection as well as at the entrance gate to farm Gai //Khaisa no.159. The site notices are illustrated in Appendix C.

2.10 NEWSPAPER ADVERTISEMENTS

Notices regarding the proposed project and associated activities were circulated in three newspapers namely the 'Republikein', Allgemeine Zeitung' and the 'Sun" on the 17th November and 24th of November. The purpose of this was to commence the consultation process and enable I&APs to register an interest with the project. The adverts can be found in Appendix C.1.

2.11 NON-TECHNICAL SUMMARY

The Non-Technical Summary (NTS) presents a high-level description of the proposed project; sets out the ESIA process and when and how consultation is undertaken; and provides contact details for further project-specific inquiries to all registered I&APs. The NTS was distributed to all registered and identified I&APs for the project. The NTS can be found in Appendix B.

2.12 SUMMARY OF ISSUED RAISED

The initial public participation phase involving the notifications of the project through media such as the newspaper adverts, direct mail sent to identified I&APs and the display of site notices delivered very few interactive communications from the public. The comments received from this phase will be contained in the final assessment documentation.

All comments received from I&APs during the review period of the draft report will be contained in this section in the final assessment documentation.

2.13 DRAFT ESIA AND EMP

This report and EMP for the project's environmental clearance includes an assessment of the biophysical and social environment, which satisfies the requirements of Step 5 (Figure 2).

The ESIA report documents the findings of the assessment process, provides stakeholders with the opportunity to comment and continued consultation and forms part of the environmental clearance application. The EMP provides measures to manage the environmental and social impacts of the proposed project and outlines specific roles and responsibilities to fulfil the plan.

This ESIA report focuses on the significant impacts that may arise from the proposed project as described in Step 4 (Figure 2). These impacts are discussed in Chapter 6.

The aim of this stage is to ensure all stakeholders and I&APs have the opportunity to provide final comments on the assessment process and findings and register their concerns. Should any significant changes arise that were not captured in the scoping report an addendum report will be submitted to the DEA incorporating such comments.

2.14 FINAL ESIA AND EMP

The final ESIA report and associated appendices are available to all stakeholders on the ECC website www.eccenvironmental.com. All I&APs was informed via email of the report's availability. The ESIA report and appendices were formally submitted to the Office of the Environmental Commissioner, DEA as part of

the application to for an environmental clearance certificate. Should I&APs raise any issues that were not addressed in this ESIA, ECC will develop an addendum report and submit to the competent authority, the Ministry of Environment, Forestry and Tourism (MEFT).

2.15 AUTHORITY ASSESSMENT AND DECISION MAKING

The Environmental Commissioner in consultation with other relevant authorities will assess if the findings of the ESIA presented in the ESIA report is acceptable. If deemed acceptable, the Environmental Commissioner will revert to the proponent with a record of decision and any recommendations.

2.16 MONITORING AND AUDITING

In addition to the EMP being implemented by the proponent, a monitoring strategy and audit procedure will be determined by the proponent and competent authority. This will ensure key environmental receptors are monitored over time to establish any significant changes from the baseline environmental conditions caused by project activities.

3 REGULATORY FRAMEWORK

This chapter outlines the regulatory framework applicable to the proposed project. Table 2 provides a list of applicable legislation and the relevance to the project. An environmental clearance is required for any activity listed as per Government Notice No 29 of 2012 of the EMA.

3.1 NATIONAL LEGISLATION

TABLE 3 - LEGAL FRAMEWORK

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Constitution of the Republic of Namibia of 1990	The Constitution of the Republic of Namibia, 1990 clearly defines the country's position in relation to sustainable development and environmental management. The constitution refers that the state shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: *"Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present, and future; in particular, the government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory."*	The proponent is committed to engage the local community for the proposed project by providing local jobs as well as, exploring ways of finding rich recourses to that could contribute to the mining sector in Namibia.
Environmental Management Act, (No. 7 of 2007) and its regulations, including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2012)	The Act aims to promote sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment. It sets the principles of environmental management as well as the functions and powers of the minister. The Act requires certain activities to obtain an environmental clearance certificate prior to project development. The Act states an EIA may be undertaken and submitted as part of the environmental clearance certificate application. The MEFT is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs under	This environmental scoping report (and EMP) documents the findings of the environmental assessment undertaken for the proposed project, which will form part of the environmental clearance application. The assessment and report have been undertaken in line with the requirements under the Act and associated regulations.

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	the MEFT is responsible for the administration of the EIA process.	
Water Act, No. 54 of 1956	Although the Water Resources Management Act, No. 11 of 2013 has been billed, but not promulgated, it cannot be enacted as the regulations have not been passed – so the Water Act 54 of 1956 is still in effect. This act provides for *"the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respect and for the control of certain activities on or in water in certain areas".* The Department of Water Affairs within the Ministry of Agriculture Water and Land Reform (MAWLR) is responsible for the administration of the Act. The Minister may issue a permit in terms of the regulations 5 and 9 of the government notice R1278 of 23 July 1971 as promulgated under section 30 (2) of the Water Act no. 54 of 1956, as amended.	The Act stipulates obligations to prevent pollution of water. Should wastewater be discharged, a permit is required. The EMP sets out measures to avoid polluting the water environment. Measures to minimise potential groundwater and surface water pollution are contained in the EMP. Abstraction of water from boreholes requires an abstraction permit. Abstraction rates need to be measured and reported to the authorities in accordance with the requirements of this legislation. In addition, annual reporting on the environmental impacts of water abstraction is recommendable.
Soil Conservation Act, No. 76 of 1969) and the Soil Conservation Amendment Act, No. 38 of 1971)	Makes provision for the prevention and control of soil erosion and the protection, improvement and the conservation, improvement and manner of use of the soil and vegetation.	This will be taken into consideration during the intention of the works to be undertaken on farm Gai //Khaisa no.159. Measures in the EMP set out methods to avoid soil erosion.
The Forestry Act, No. 12 of 2001 as amended by the Forest Amendment Act, No. 13 of 2005	All harvesting of trees and wood in Namibia is governed by this Act and its regulations 2015. Section 22 requires permits to be obtained for harvesting, charcoal production, bush control and transportation. Section 24 requires a permit for the cutting, destruction or removal of vegetation that are	The planned project activities will include semi mechanised bush thinning activities to supply the biomass production plant to be constructed on the same farm. The necessary permits should be obtained from the MEFT, where the application should satisfy that

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
	classified under rare and or protected species; clearing the vegetation on more than 15 hectares on any piece of land or several pieces of land situated in the same locality which has predominantly woody vegetation; or cut or remove more than 500 cubic metres of forest produce from any piece of land in a period of one year.	the cutting and removal of vegetation will not interfere with the conservation of soil, water or forest resources. Further management actions are contained in the EMP.
National Heritage Act, No. 27 of 2004.	The Act provides provision of the protection and conservation of places and objects with heritage significance. Section 55 stipulates that biomass processing companies must report any archaeological findings to the National Heritage Council after which a heritage permit needs to be issued.	There might be potential for heritage objects to be found on site, therefore the stipulations in the Act have been taken into consideration and are incorporated into the EMP. Section 55 compels biomass processing companies to report any archaeological findings to the National Heritage Council after which a permit needs to be issued before the find can be disturbed. In cases where heritage sites are discovered the 'chance-find procedure' will be used.

3.2 NATIONAL REGULATORY REGIME

TABLE 4 - NATIONAL POLICIES

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
Vision 2030	Vision 2030 sets out the nation's development programmes and strategies to achieve its national objectives. It sets out eight themes to realise the country's long-term vision. Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people to a level in line with the developed world.	The planned project shall meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities.
The Fifth National Development Plan (NDP5)	NDP5 is the fifth in the series of seven five-year national development plans that outline the objectives and aspiration of Namibia's long-term vision as expressed in Vision 2030. NDP5 is structured on the pillars of economic progression, social transformation, environmental sustainability and good governance. Under the social transformation pillar is the goal of improved education.	The planned project supports meeting the objectives of NDP5 by creating opportunities for employment to the nearby community and the Namibian nation.
Labour Act, No. 11 of 2007	The Labour Act, No. 11 of 2007 (Regulations relating to the Occupational Health & Safety provisions of Employees at Work promulgated in terms of Section 101 of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997).	The proposed project will comply with stringent health and safety policies, including the compulsory use of specific PPE in designated areas to ensure adequate protection against health and safety risks. Proper storage and labelling of hazardous substances are required. The project will ensure employees in charge of and working with hazardous substances need to be aware of the specific hazardous substances and how to handle them in order not to compromise worker and environmental safety.

3.3 PERMITS AND LICENSES

3.3.1 RELEVANT LICENCES NEEDED

Several permits must be in place for the project in order to be legally compliant and able to operate the proposed project. A list of such licences is contained in Table 4. The permits listed have conditions (i.e., no aerial application of herbicides, amongst others) attached and must be adhered to strictly.

TABLE 5 – PROJECT RELATED PERMIT REQUIREMENTS

PERMIT AND LICENCES	RELEVANT AUTHORITY	PROJECT BEARING	VALIDITY/DURATION
WATER ABSTRACTION PERMITS	Ministry of Agriculture, Water and Land Reform	An abstraction permit is required for the abstraction of water form a borehole for commercial purposes.	Valid for a five-year period.
BUSH CONTROL LICENCE	Ministry of Environment, Forestry and Tourism	Legally required under Section 22 of the Forestry Act.	Permit dependent
FOREST LICENCE FOR HARVESTING	Ministry of Environment, Forestry and Tourism	A Harvesting Permit is required for any tree cutting and/or harvesting of wood in an area greater than 15 hectares per annum as stated under Section 22 (1), 23 (1), 24 (2&3) and 33 (1&2) of the Forest Act (Act 12 of 2001).	Renewed every 3 months after an inspection of the farm is done by a licencing officer.
CHARCOAL PRODUCTION LICENCE	Ministry of Environment, Forestry and Tourism	Legally required under Section 22 of the Forestry Act.	Permit dependent
FOREST PERMIT FOR TRANSPORTING	Ministry of Environment, Forestry and Tourism	A Transport Permit is required to convey any wood or wood products (i.e., charcoal, and firewood). It is obtainable from any Forestry Office.	Valid for 7 days
FOREST PERMIT FOR MARKETING	Ministry of Environment, Forestry and Tourism	A permit for marketing of forest produce is required as set out on Form 17 of section 21 of the forest regulations (12) of the Forest Act of 2001	Permit dependent

3.4 WORLD BANK STANDARDS

The International Finance Corporation (IFC) is a member of the World Bank Group and is the largest global development institution focusing on the private sector in developing countries. Its standards have become a global benchmark for environmental and social performance. They form the basis for the Equator Principles (IFC, 2013), a voluntary environmental and social risk-management framework used by 77 financial institutions worldwide. The Equator Principles are a framework and set of guidelines for evaluating social and environmental risks in project finance activities and apply to all new projects with a total capital cost of US$10 million or more, no matter what industry sectors, without geographic requirement. The Equator Principles are not applicable to this specific project; however, the industry specific IFC Occupational Health, Safety and Environmental guidelines are used in the assessment of the proposed development.

The proposed project falls within category C of the IFC Environmental and Social Due Diligence (E&SDD) categorization approach under the 2012 sustainability framework. The proponent will not receive funding from the IFC to fund this project, but from private investors. Therefore, IFC's environmental and social guidelines and management actions are adhered to, as best practice to ensure project-specific environmental and social sustainability is achieved.

3.5 FOREST STEWARDSHIP STANDARD FOR NAMIBIA

It is the proponent's intention to have the property (farm Gai//Khaisa no.159) aligned and possibly become certified by the Forest Stewardship Council (FSC) standard, the following summarised background information on the operations of the Namibian Forest Stewardship Standard (NFSS) should be understood.

The Forest Stewardship Council (FSC) was established in 1993, as a follow-up to the United Nations Conference on Environment and Development (the Earth Summit at Rio de Janeiro, 11992) with the mission to promote environmentally appropriate, socially beneficial and economically viable management of the world's forests (NFSS, 2019).

FSC is an international organization that provides a system for voluntary accreditation and independent third- party certification. This system allows certificate holders to market their products and services as the result of environmentally appropriate, socially beneficial and economically viable forest management. FSC also sets standards for the development and approval of FSC Stewardship Standards which are based on the FSC Principles and Criteria. In addition, FSC sets standards for the accreditation of Conformity Assessment Bodies (also known as Certification Bodies) that certify compliance with FSC's standards. Based on these standards, FSC provides a system for certification for organizations seeking to market their products as FSC certified.

The FSC standard is centred around three main pillars, Environmental, Economic and Social. Environmentally appropriate forest management ensures that the production of timber, non-timber products and ecosystem services maintains the forest's biodiversity, productivity, and ecological processes. Socially beneficial forest management helps both local people and society at large to enjoy long term benefits and also provides strong incentives to local people to sustain the forest resources and adhere to long-term management plans. Economically viable forest management means that forest operations are

structured and managed so as to be sufficiently profitable, without generating financial profit at the expense of the forest resource, the ecosystem, or affected communities.

4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROJECT

Namibia has established a viable and profitable biomass production industry for more than 30 years utilising invader and endemic encroacher species as source material. A number of successful operations are located within the central region of Namibia (i.e., Jumbo Charcoal, established in 1989 outside Okahandja) up to the central northern regions of the country. The proposed development will expand the local biomass production industry further. Namibia is also known as the world's 5th largest exporter of charcoal products. On a local scale, the proposed development will restore ecological ecosystem functioning and improve rangeland management on farm Gai//Khaisa no.159.

The proposed project presents an opportunity to monetize natural biomass present (encroacher bush species) on farm Gai//Khaisa no.159 whilst creating an environmentally sustainable rangeland and maintain ecosystem functioning. The proposed project has the potential to create limited but long-term employment opportunities and to contribute to national income. Moreover, in the event that the proposed bush thinning, charcoal and briquette production activities are successful, and more support for charcoal production in the local area can be secured, the same approach can potentially transcend into a regional operation which can result in multiple socio-economic benefits to the region and the country at large.

4.2 BUSH ENCROACHMENT (THICKENING) AND CAUSES

Bush thickening is defined as "the invasion and/or thickening of aggressive undesired woody species (i.e., target spp.) resulting in an imbalance of the grass: bush ratio, a decrease in biodiversity, and a decrease in carrying capacity", causing severe economic losses for Namibia – in both the commercial (freehold) and communal (non-freehold) farming areas (NFSS, 2019).

Bush thickening (encroachment) problems are experienced in the general area of Kombat, which include farm Gai//Khaisa no.159 with densities of between 4,000-12,000 plants/ha for *Dichrostachys cinerea* (sickle bush - an aggressive encroacher specie) as an example being the most contentious species (Bester 1996, Cunningham 1998). Several other encroacher species may occur on farm Gai //Khaisa no.159 as well and is covered in section 5.5.1.

4.2.1 CAUSES

There is no one single cause of bush encroachment in Namibia, but rather a combination of factors that have a combined effect on rangeland. Some of these are attributed to climate change, disruption of the balance between grass and bush in the savanna due to non-adaptive grazing, the suppression of fires, and overgrazing (DAS, 2017) to name but a few.

Figure 4 is a visual illustration of these factors in no specific combined order.

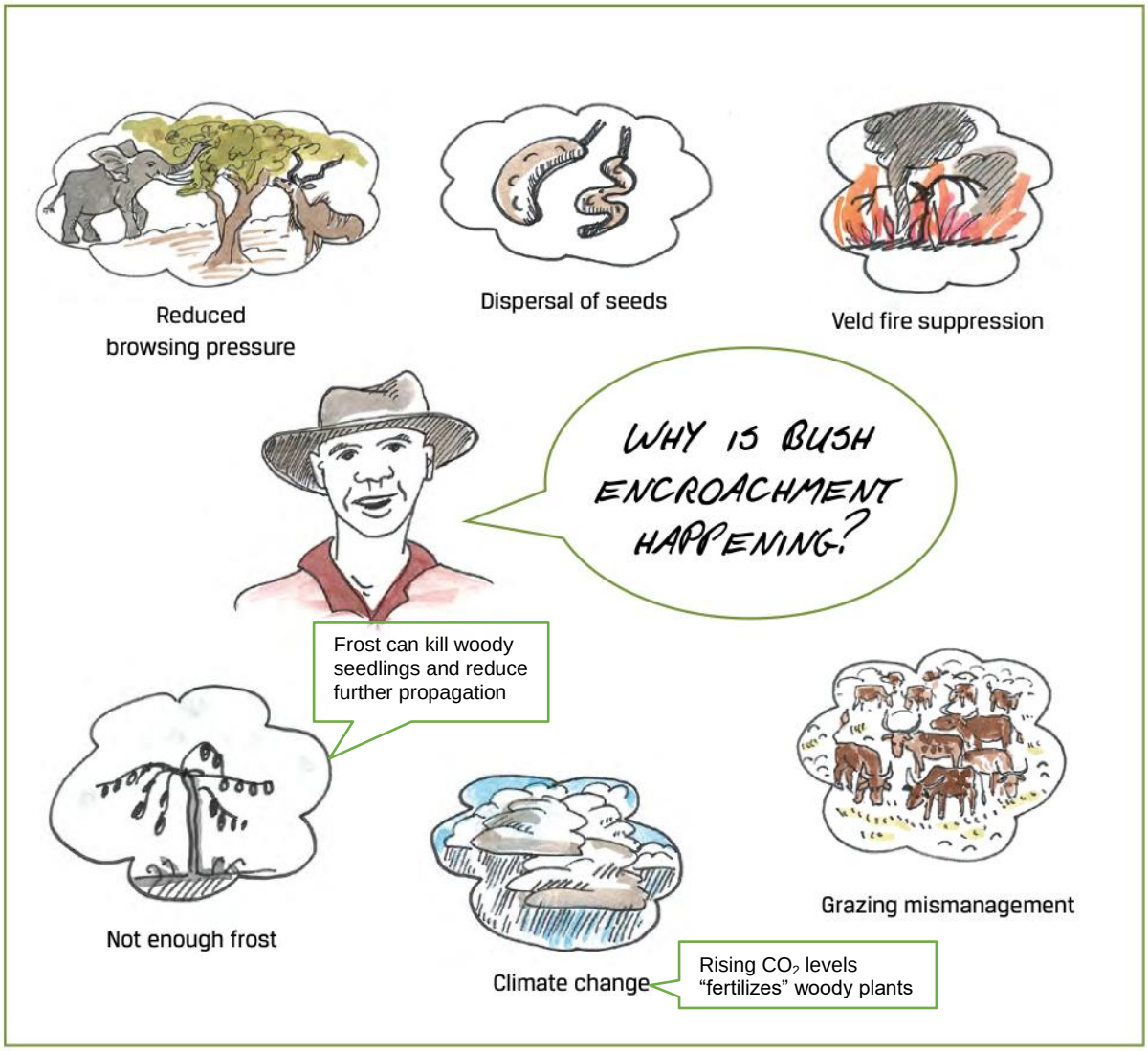


FIGURE 4: CAUSES OF BUSH CONTROL (SOURCE: DAS, 2017, WITH INSCRIPTIONS ADDED BY ECC)

4.3 BUSH THINNING DEFINITION

Thinning refers to the selective removal of bush, leaving enough large individuals to suppress small individuals to repair and stabilise the grass: bush balance (DAS, 2017).

Bush thinning alone does not alter the botanical composition of the grass sward, which is the topsoil layer that contains a discontinuous mat of grass and grass roots in arid environments. The sustainable extent of thinning the encroacher species from farm Gai//Khaisa no.159 is depended on the calculated density of vegetation per hectare from a small representative sample used. A special formula is used to do this, and the result is expressed in bush equivalents (BE) per hectare. A bush equivalent (BE) is a standardised 1.5-metre-high bush (DAS,2017). The proponent should use this formula to establish the thinning ratio on farm Gai//Khaisa no.159. As a rule, if a project area is near Grootfontein with a long-term average annual rainfall of 650mm, the recommended bush density is 1300 BE/ha (DAS,2017).

4.4 CURRENT STATE OF THE PROJECT AREA (FARM GAI//KHAISA NO.159)

The Farm Gai//Khaisa no.159 does not have any major unique habitats (including vertebrate fauna and flora); is not in a pristine condition and is heavily impacted by current/past charcoal harvesting activities (Cunningham, 2020). The project area however has thick stands of vegetation which includes a dense coverage of sickle bush.

The biomass from bush thickening species is seen as a natural resource for downstream value addition industries and energy supply. The thinning of the identified bush thickening species is seen as a means to improve biodiversity and ecological restoration (NFSS, 2019).

Sensitive areas that should be avoided and excluded from mechanical harvesting operations on Farm Gai //Khaisa No.159 include the rocky ridges (red dotted oblong); ephemeral pan system (blue dotted oblong) and ephemeral drainage lines (white dotted oblongs). Note the open areas currently/previously impacted by charcoal harvesting operations throughout most of the farm (Cunningham, 2020). All areas outside these demarcated areas can be utilised for bush thinning purposes.

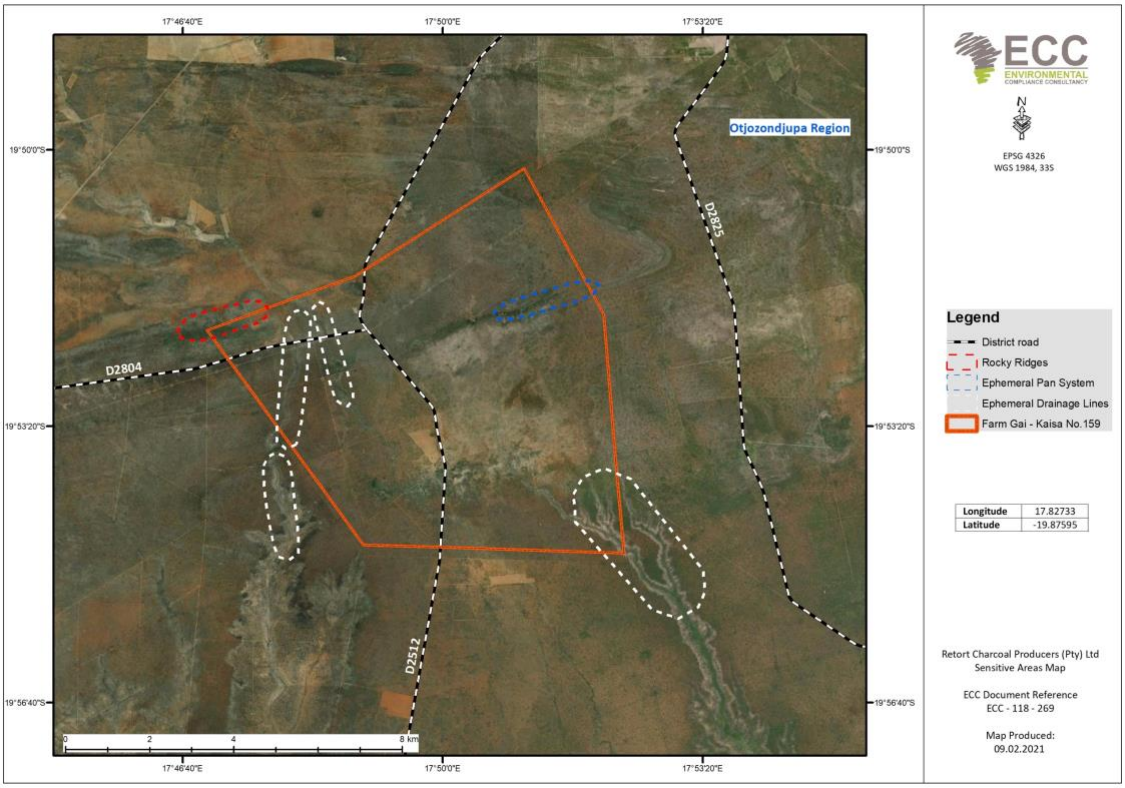


FIGURE 5: SENSITIVE AREAS TO BE AVOIDED ON FARM GAI//KHAISA NO.159 NO. 159 (SOURCE: P. CUNNINGHAM 2020)

4.5 MECHANISED BUSH THINNING EQUIPMENT

Thinning out of encroacher bush on farm Gai//Khaisa no.159 will be done by rubber wheeled timber logging machines in-field.

These machines have a relatively low impact on soil structure due to the large high flotation tyres fitted on them as opposed to steel tracks as illustrated in the figure 6 below.

FIGURE 6: RUBBER WHEELED TIMBER LOGGING MACHINES

Once cut, the bush is hauled with a tractor-trailer combination out of the field along the camp fence line roads to a central processing area as illustrated by figure 7 below.

FIGURE 7: TRACTOR-TRAILER COMBINATION (IMAGES ARE FOR ILLUSTRATION PURPOSES ONLY)

4.6 THE PRODUCTION PROCESS

4.6.1 CHARCOAL PRODUCTION

Charcoal is produced by slow heating wood (carbonization) in airtight retorts, in chambers with various gases (Demirbas, et al., 2016). Charcoal consists of carbon (C), hydrogen (H), oxygen (O), nitrogen (N), sulfur (S), and ash at very low concentration levels (Demirbas, et al., 2016).

Wood carbonisation at the correct coaling temperatures (700° - 1000°C) and slow heating rates (carbonisation) is to ensure the least amount of volatile organic matter remains within the raw material and a cleaner gas is formed which is fed back into the carbonisation process as fuel. If the coaling temperatures are too low, excessive amounts of volatiles will remain in the charcoal and cause heavy smoke when it burns.

Properties of charcoal are:
(1) a low sulfur content;

(2) a high carbon to ash ratio;
(3) relatively few and unreactive inorganic impurities;
(4) a specific pore structure with a large surface area, and
(5) little smoke discharge.

4.6.2 BRIQUETTE PRODUCTION

Several types of biomass (i.e., encroacher bush from farm Gai//Khaisa no.159) produce charcoal fines that have to be agglomerated, either before or after the carbonization process. Commercially sold charcoal briquettes are typically made from a binder and filler. The charcoal is crushed finely and passed through a variety of screens to ensure the particle size is small enough. A binder, typically starch, is added to the fines, as well as water. Starch is preferred over other alternatives (wax and wood pitch) because of its economical price and availability (Demirbas, 2016).

The briquetting of charcoal improves and provides more efficient use of biomass-based energy resources such as wood and agricultural wastes (Demirbas et al., 2016).

Charcoal comprises 75% of the briquette mixture, while water and starch comprise 20 and 5%, respectively (Demirbas, 2016). The press for briquetting must be well designed, strongly built, and capable of agglomerating the mixture of charcoal and binder sufficiently for it to be handled through the drying process.

The manufacturing of briquettes on farm Gai//Khaisa no.159 is an integral part of the charcoal-producing facility, and not an independent operation. Briquettes are a processed biomass fuel that can be burned as an alternative to wood or charcoal for heat energy (Demirbas, 2016).

4.6.3 AIR EMISSIONS

Wood has very low sulfur content. Therefore, when combusted in retorts, the potential release of noxious sulfur will be negligible. Continuous production of charcoal is generally more agreeable to emission control than batch production because emission composition and flow rates are relatively constant. The burning of briquettes is widely accepted as a cleaner burning fuel in the local and international markets (Demirbas, 2016).

Charcoal processing activities are associated with charcoal dust exposure, which may increase the risk of workers developing adverse respiratory outcomes. There are no documented studies on dose–response relationships between respiratory symptoms and dust levels exposure among charcoal workers.

4.7 INFRASTRUCTURE LAYOUT ON SITE

Figure 8 is an illustration of the site's physical components that will be constructed on farm Gai//Khaisa no.159.

- The yellow block represents the processing plant of 3000sqm;
- The brown patch is the materials lay-down area of timber yard of about 2ha;
- The grey patch is a hardened / paved area where the containers will be stacked; and

- the four grey blocks represent the retorts (weather proof) with their conveyors.

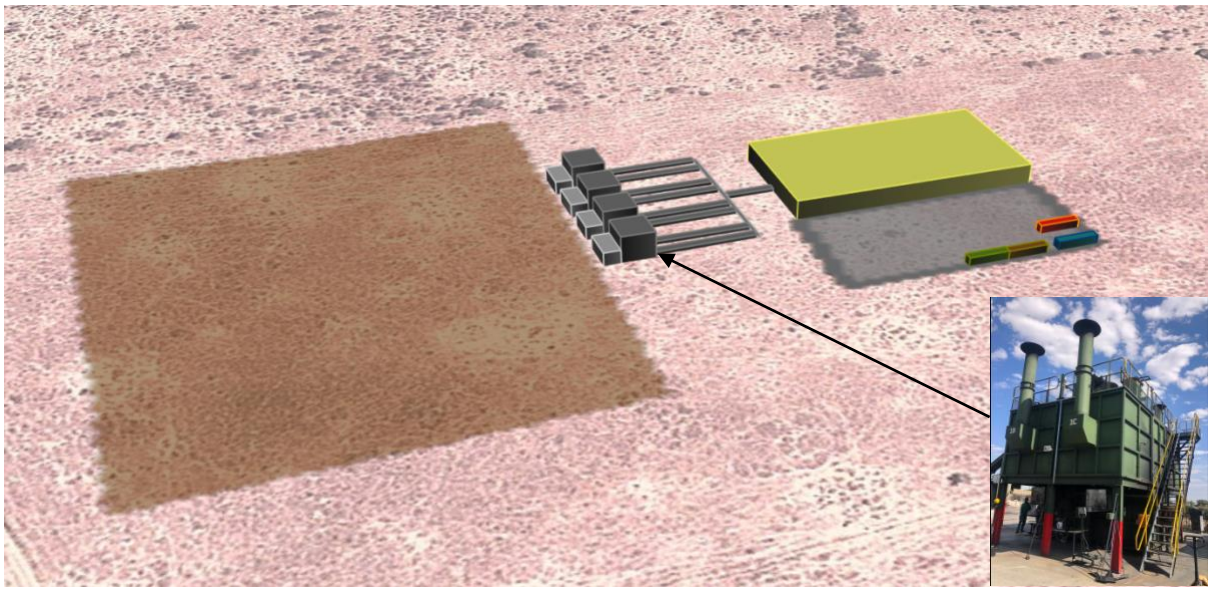


FIGURE 8: LAYOUT OF ONSITE OPERATIONAL AREAS WITH INSET OF A RETORT CHAMBER. SOURCE: RETORT CHARCOAL PRODUCERS (PTY) LTD, (2020).

4.8 EQUIPMENT REQUIREMENTS

Vehicles and equipment will comprise of the following:

- Two 4x4 vehicles for personnel and operational use on the farm;
- Four Bell 2-wheelde loggers;
- Four Bell tractors with trailers:
- One road grader;
- One front end loader;
- One container reach stacker; and
- One water truck.

4.9 INDUSTRIAL DUST COLLECTOR SYSTEM

The proponent will utilise an industrial dust collector system, imported from South Africa, to capture and handle dust and gas emissions from the production process during normal operations. The system is called the LCP cartridge dust collectors. See figure 9.

"All LCP Ex, LCP units have generously sized integral pre- separation chambers to increase their dust load capacity whilst reducing the load on the filter cartridges. Maintenance is from the top, within handrails if specified. A range of space saving integral fans from 5,5 kW to 18,5 kW may be specified, with optional air silencers. Larger units may be served by floor mounted high efficiency Combi-fab fans".

FIGURE 9: LCP CARTRIDGE DUST COLLECTOR SYSTEM ILLUSTRATION. SOURCE: ENVIROX, 2020

LCP cartridge dust collectors are designed for continuous operation in process and general dust extraction applications with free-flowing dust. The LCP dust collector is also fitted with specialised components called ATEX certified explosion relief panels and a back-pressure flap valve when handling explosive dusts St1, St2 or St3 which is generated from the carbonisation process in a gaseous form at high temperatures. The system also includes dedicated control systems for complete dust extraction. The system collects dust particles of 2.5mm size.

FIGURE 10: ILLUSTRATION OF THE FIRE CONTROL SYSTEM WITH A BACK-PRESSURE FLAP VALVE. SOURCE: ENVIROX, 2020

Combustible dusts are ranked into one of four classes: ST0, ST1, ST2, ST3 according to Dr. Ashok (Fauske and Associates, LLC., 2020). The proposed project will produce charcoal dust which is classified as an ST1 class combustible dust. The LCP cartridge dust collector system includes equipment that is ATEX certified and will prevent explosions (Envirox, 2020). In the event of a possible dust explosion the unit will vent the explosion into a safe atmospheric area ensuring no employees or products are harmed in any way (Envirox, 2020). See Appendix G.

4.10 ALTERNATIVES CONSIDERED

The proposed project has been subjected to a process of design evolution, informed by both consultation and an iterative environmental assessment. In terms of the Environmental Management Act, No. 7 of 2007 and its regulations, alternatives considered should be analysed and presented in the scoping assessment and ESIA report. This requirement ensures that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified.

Alternatives that were considered are:

- Dust collector technology (section 4.9) reducing emissions by 99%;
- Mechanical bush thinning equipment (section 4.5) with a lesser footprint;
- Retort carbonisation system (section 4.6); and
- Change in the onsite ablution types from long drops to a French drain system (section 4.15).

The most suitable options and methods were identified and recommended to ensure the impacts on the environment and society from these activities are minimised.

4.11 NO-GO ALTERNATIVE

Should this project not be implemented, no change in the current biophysical environment on farm Gai //Khaisa no.159 will occur. No impacts to the biophysical or socio-economic environment will occur.

However, the current encroachment situation on the farm would worsen and would most likely be exacerbated by ongoing unsustainable subsistence farming activities characterised by grazing mismanagement. The opportunity for socio-economic advancement of locals would not be realised.

4.12 POWER SUPPLY

Power will be generated from silenced diesel power generation sets linked up to a central Distribution Board (DB) between the plant and the retorts.

4.13 FUEL

Diesel fuel will be supplied and stored on site by Northern Fuel Distributors whose headquartered in Otjiwarongo. A supply of 14 000 litres of diesel fuel will be kept in an above ground bowser. Fuel will only be used to power bush thinning machinery. Fuel handling will be according to risk mitigation measures contained in the EMP.

4.14 WATER SUPPLY AND USE

Estimated water consumption of about 200m³/month for production plus household consumption for about 40 people.

Relatively small quantities of water will be used for the manufacturing process of the briquettes. Briquettes are typically manufactured from mainly charcoal and a small percentage (5-10%) binding agent and water.

Water will solely be obtained from onsite boreholes. The proponent will ensure that all abstraction permits are in place prior to project commencement. If an additional borehole is required, the relevant abstraction permit shall be obtained from the Ministry of Agriculture Water and Forestry. Water shall be abstracted according to the sustainable yield figure stipulated on the abstraction permit.

4.15 WORKERS ACCOMMODATION

Approximately 50 possible job opportunities are foreseen to be created for the Retort Charcoal Producers development. The workers will be deployed at various components of the business including but not limited to bush thinning, charcoal and briquette production, maintenance and general operations.

Existing infrastructure and houses on site will be renovated and changed to be used by personnel on site. The proponent will provide adequate housing to staff with basic amenities included (ablution facilities i.e., flush units linked to a French drain system) per accommodation quarter on farm Gai//Khaisa no.159.

4.16 WASTE MANAGEMENT (SOLID AND EFFLUENT WASTE)

Solid and effluent waste will be generated by the project. Waste produced on site will include sewerage and solid waste such as packaging.

Examples of further types of wastes include spent solvents and oily rags, empty paint cans, chemical containers; used lubricating oil; used batteries (such as nickel-cadmium or lead acid); and lighting equipment, such as lamps or lamp ballasts (IFC, 2007).

Wastewater (i.e., water from wash bays) will be recycled where possible, and effluent contained and allowed to evaporate after use. Solid and hazardous waste will be disposed of at the Grootfontein municipal waste disposal site. The proponent shall ensure waste transport certificates are provided. No toxic waste will be discharged into the environment. On site waste management guidance according to IFC standards are contained in the EMP.

4.17 HAZARDOUS WASTE

Hazardous waste (hydrocarbon contaminated soil, etc.) generated on the project site will be handled and disposed of at the Grootfontein municipal landfill site. Hazardous waste shares the properties of a hazardous material (i.e., ignitability, corrosivity, reactivity, or toxicity), or other physical, chemical, or biological characteristics that may pose a potential risk to human health or the environment if improperly managed (IFC, 2007).

5 BASELINE / CURRENT BIOPHYSICAL ENVIRONMENT

This section provides an overview of the existing biophysical environment through the analysis of the baseline data regarding the existing natural and socio-economic environment. Desktop studies on the national database are undertaken to get information of the current status of the receiving environment. This provides a baseline where changes that occur as a result of the proposed project can be measured.

5.1 CLIMATE

Namibia is located within the zone where high-pressure systems are prevalent. Over the interior of Namibia, the Kalahari High dominates, especially during winter when the subsiding air causes cloudless days with stable sinking air. During summer the positions of the high-pressure cells fluctuate more, allowing low pressure cells to develop over the heated interior, which in turn pull moist air from the inter-tropical convergence zone. As the moist air from the north and the east moves south and west, the northeast parts of Namibia receive the most rain – diminishing in a direction to the south and west.

Farm Gai//Khaisa no. 159 is located in a part of Namibia which receives between 500 and 550 mm of rain per year, with a variation coefficient of <30%. Rainfall events are limited to the summer months, starting in November and ending in April, but mainly between December and March, in the form of thunderstorms often associated with heavy downpours. Potential evaporation is between 1,960 and 2,100 mm per year, meaning an average water deficit of between 1,500 and 1,700 mm per year. Relative humidity is low, rarely more than 20% in winter but may reach 85% in summer before or after thunderstorm build-up. Maximum temperatures average around 32 - 34°C, mainly recorded during the afternoons between November and January, while minimum temperatures are around 4 - 6°C and are normally recorded during nights in June and July. Deviations from these averages are common, with the highest temperatures reaching 38 - 40°C and the lowest temperatures below 0°C. Frost during the winter months may occur but is not common (Mendelsohn et al., 2002).

Due to the rhythm of the air pressure systems, the wind patterns over the interior remain fairly predictable. Prevailing wind over the study area is expected to be from the east and northeast, with occasional airflow from the southeast and southwest. Wind speed is expected to range between 5-12km/hr. The stronger air movements during the afternoons and evenings are the result of the ground being heated more in some places than others. During the winter months wind speed is slightly higher (Mendelsohn, et al., 2002).

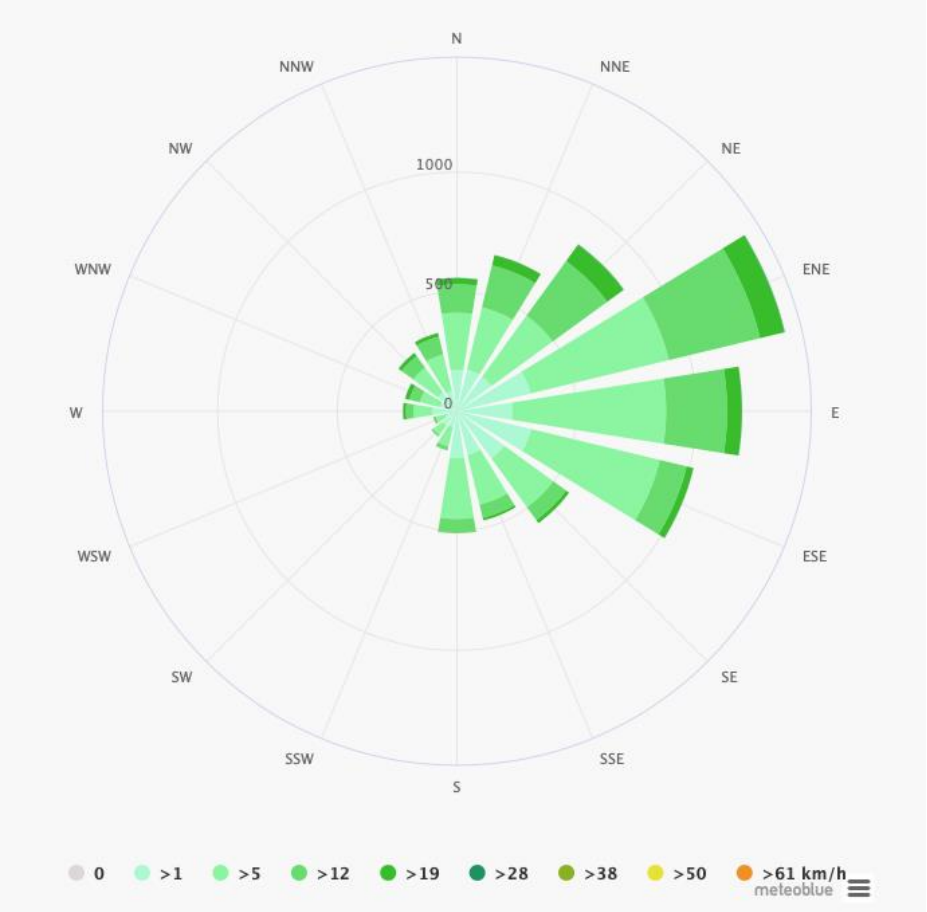


FIGURE 11: WIND ROSE OF THE GENERAL KOMBAT AREA. SOURCE: METEOBLUE.COM 2020

5.2 GEOLOGY

The study area is located where formations of the Swakop Group, which form part of the Damara Supergroup (600 – 850 million years old), show a surficial transition to the Waterberg Basin of the Karoo Supergroup (180 – 300 million years old). See Figure 12. Like the dolomites of the Otavi Group, which also form part of the Damara Supergroup, the schists of the Swakop Group are oriented in a predominantly SW-NE direction with a northern extension into what is known as the Otavi Mountains (Mendelsohn et al., 2002).

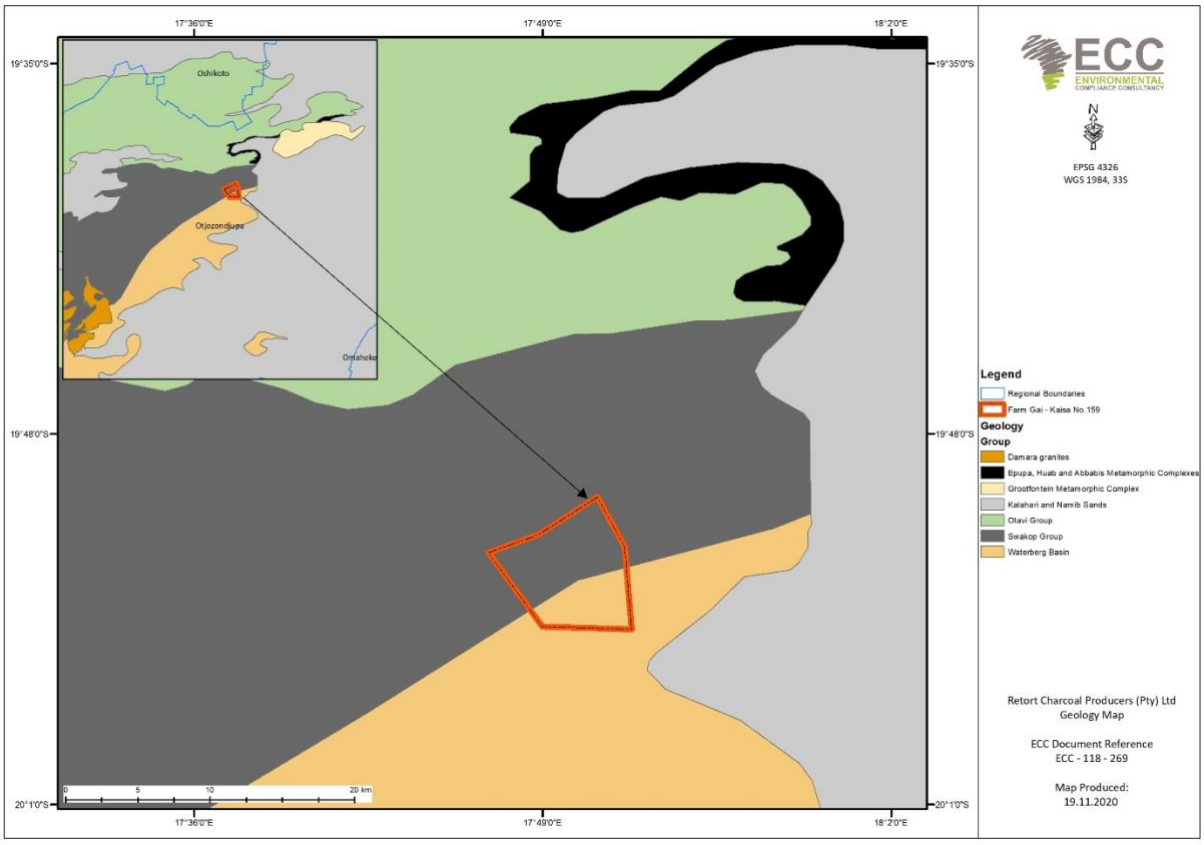


FIGURE 12 – REGIONAL GEOLOGICAL SETTING OF THE STUDY AREA

The origin of the Otavi Mountains is associated with the ancient sea between the Congo and Kalahari Cratons. Over millions of years a lime and dolomite rock mass of up to 5,000 m thick was formed, which was pressed upwards and folded intensely as the result of a gigantic collision between the two mainlands approximately 650 million years ago. Later the landscape was subject to a prolonged period of erosion, and only some of its higher parts preserved a mountainous character. Erosion effected the water-soluble limestones, creating a karst landscape marked by several synclinal and anticlinal axes, and underlain by carbonate rocks (mainly silicified dolomites). At the southern foothills of the Otavi Mountains the schists of the Swakop Group are the remains of the sediments on the ancient sea floor. The project area is situated in this zone – on a relatively flat landscape south of the Otavi Mountains.

During the wet periods of the Karoo age big rivers deposited sediments that became the sandstones and conglomerates of what is known today as the Waterberg Basin. The climate became increasingly drier and when the wetlands finally dried up about 180 million years ago, the former landscape was covered with sand, which solidified as the Etjo sandstones.

To the east a transition to the more recent Kalahari deposits (<70 million years old) becomes increasing apparent. This flat-lying landscape cover most of the older formations and show vary little geological variation on the surface (Mendelsohn et al., 2002).

5.3 TOPOGRAPHY AND SOILS

The topography of the study area is influenced by the increasing elevation towards the Otavi Mountains in the northwest, reaching an elevation of almost 1,600 m above mean sea level. Towards the southeast the landscape flattens gradually to an elevation of 1,350 – 1,300 m above mean sea level (Figure 13).

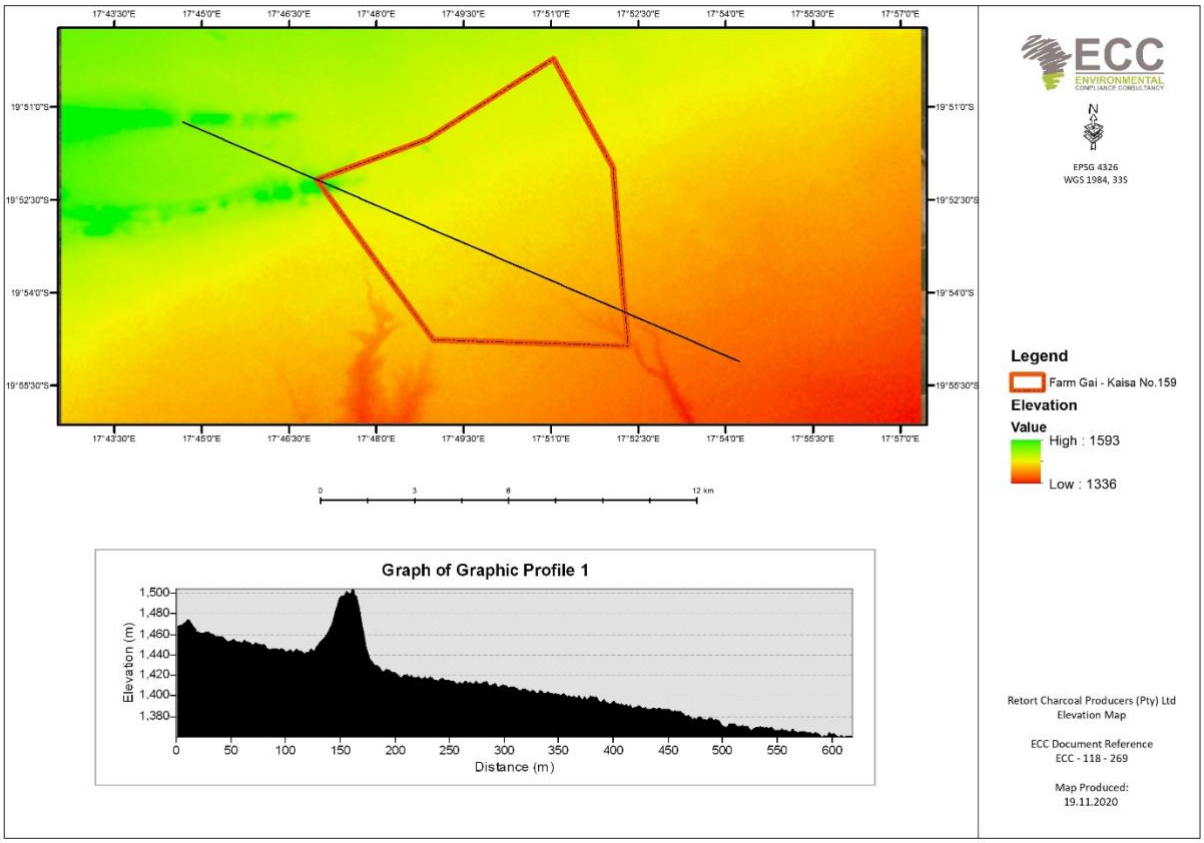


FIGURE 13 - ELEVATION PROFILE OF THE STUDY AREA

The entire study area is located where mollic leptosols dominate the landscape. This soil type is typically associated with a landscape prone to denudation. Leptosols are marked by a shallow soil profile (indicating little influence of soil-forming processes) and contain large amounts of gravel. Leptosols are coarse-textured, underlain by solid rock within 30 cm from the surface. The soil is thus poorly developed and thin, lacks appreciable quantities of accumulated clay and organic material and is susceptible to erosion during the rainy season, especially in the beginning of the rainy season when vegetation cover is sparse. As the topsoil is loose and thin, it is also susceptible to wind erosion, especially when the vegetation cover is sparse (Mendelsohn et al., 2002).

Eutric fluvisols (in the south of the study area) are associated with the ephemeral drainage lines of the Kalahari. These soils were intensely reworked during its formation, as a result of flooding. As the Kalahari landscape became more desiccated, the fluvisols became more stagnant and lost much of the original organic material and nutrients, meaning that it has lost a substantial degree of its original fertility. Fluvisols occur in proximity of the few tributaries of the ephemeral Omatako River which flow south of the study area.

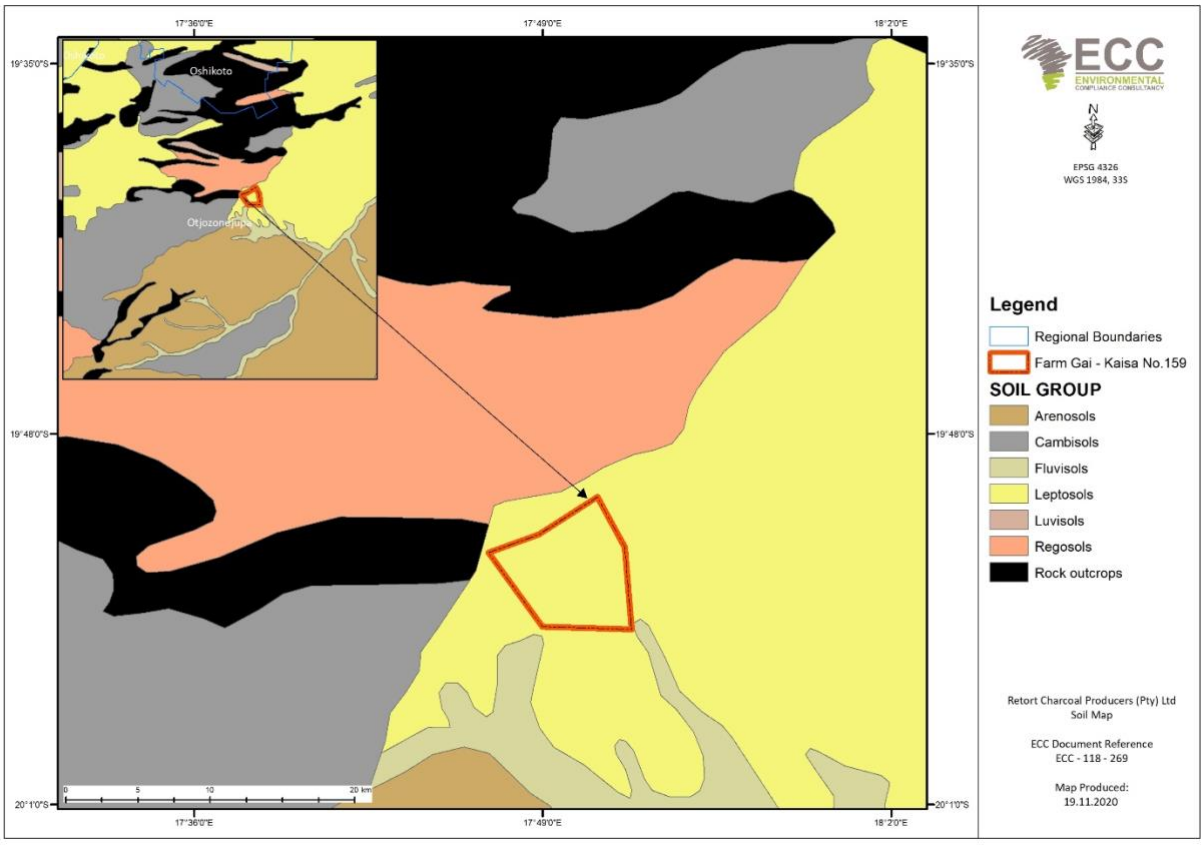


FIGURE 14 - REGIONAL SOIL MAP OF THE STUDY AREA

5.4 HYDROLOGY

The study area is located southeast of the Otavi Mountains. Being a karst landscape, the Otavi Mountains are without any surface drainage channels. Tributaries of the Omatako River originate on or near the study area (Figure 15). All of these drainage lines are ephemeral, i.e., it only contains surficial water for brief periods shortly after sufficient run-off is received in the headwaters as a result of downpours.

The Omatako River is one of the longest in Namibia and ends in the Okavango River on Namibia's border with Angola. The river has an exceptional flat longitudinal gradient - about 800 m over a distance of more than 600 km, mirroring the flatness of the Kalahari landscape it transcends.

The study area is located in the Omatako Groundwater Basin (Figure 15). The general direction of the groundwater flow is east and southeast along a through towards the Omatako River. In the west the groundwater potential is less favourable, but it improves towards the east and southeast, and then following the same direction as the Omatako River (Christelis and Struckmeier, 2001).

In the study area freshwater is obtained from borehole abstraction. Four recorded boreholes occur on the farm (figure 15).

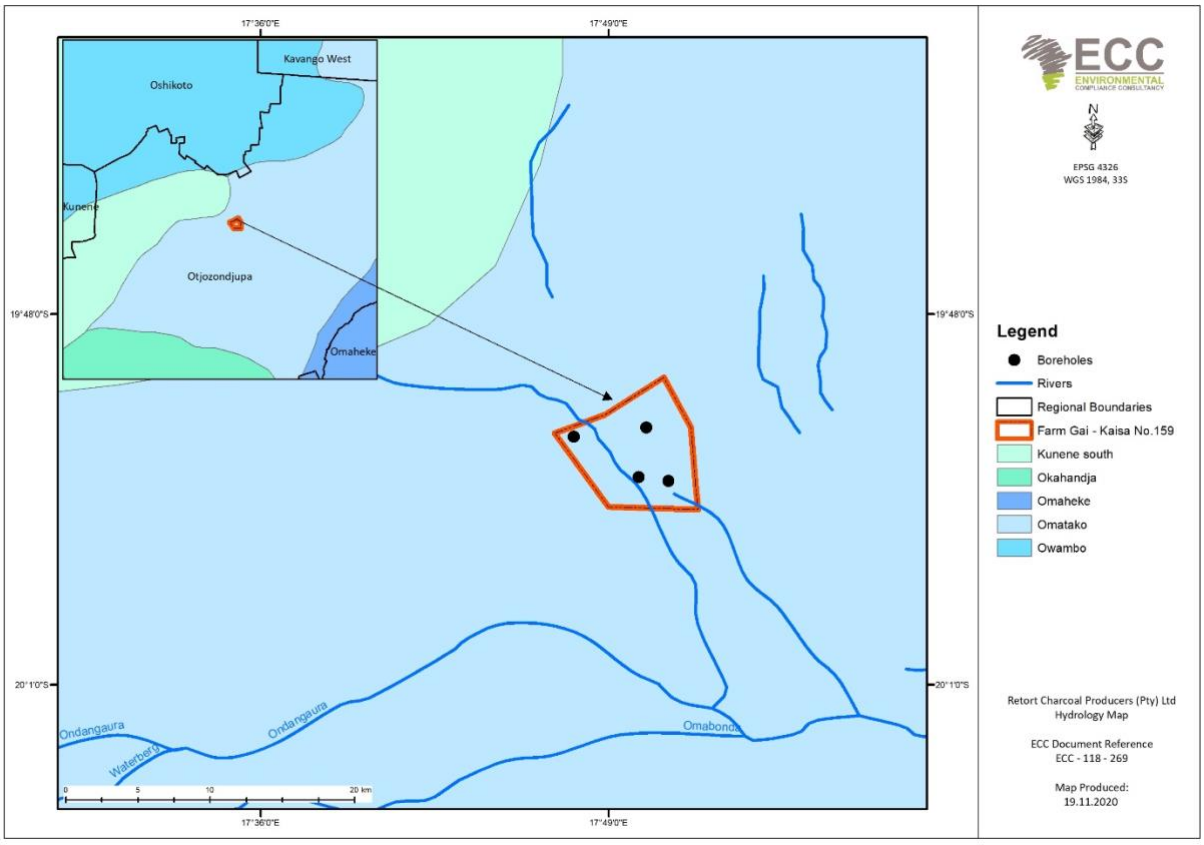


FIGURE 15 - REGIONAL HYDROLOGICAL MAP OF THE STUDY AREA

5.5 VEGETATION

The study area is covered with the Northern Kalahari vegetation type of the Broad-leaved Tree-and-shrub Savanna sub-biome, showing a transition towards the Thornbush Shrubland vegetation type of the Acacia Tree-and-shrub Savanna to the northeast (Figure 16). Where the soils are shallower and the landscape hillier, plant growth tends to be shrubby. To the southeast, where the soils become deeper and the landscape flattens, vegetation is characterized by a dense tree and bush savanna, dominated by Acacia species and annual and perennial grasses. Thornbush thickets dominate on the sandy parts. Most of the woody vegetation vary between 1 and 5m in height. Plant diversity is estimated to be more than 500 species in the general Kombat area, although local differentiation as a result of topography, shelter and the availability of water is possible. Endemism in this area is viewed as “average” with 6-15 species and known for its local endemics (Cunningham, 2020). Biophysical baseline information does not accentuate the uniqueness of mountain vegetation and the diversity of plants species may converge on relatively small, elevated areas in which there are several habitats and niches offered by micro-climate, elevation, water and sheltered spaces. Most of the endemic, near endemic and protected floral species may occur (even on farm Gai//Khaisa no.159, although most of these are common and widespread. Plant endemism is estimated between five and fifteen species (Mendelsohn et al., 2002).

The most important environmental variable affecting vegetation in this part of the country is rain and to a lesser extent frost, but micro-habitat conditions and rangeland management practices determine bush density and grass composition. Grazing resources are made up of a wide variety of grass species, which vary widely in palatability and abundance. Bush thickening (encroachment) problems are experienced in the

general area with densities of between 4,000-12,000 plants/ha for *Dichrostachys cinerea* being the most contentious species (Cunningham, 2020).

It is estimated that at least 145 larger trees and shrubs (>1m in height) and 111 grasses are known to or expected to occur in the general area of which a low proportion are endemics (Cunningham, 2020).

Thirty-six (24.8% of total specie occurrence) species of larger trees and shrubs have some kind of protected status in the general area (this includes endemic and near endemic species) of which 25 species are protected by the Forest Act No. 12 of 2001(17.2%), 4 species are protected by the Nature Conservation Ordinance No. 4 of 1975 (2.8%) and 3 species are listed as CITES Appendix 2 species (2.1%). The IUCN (2020) classifies 19 species as least concern (13.1%) although not all the species have been assessed by the IUCN Red List.

The most important larger tree and shrub species are viewed as *Cyphostemma juttae* (endemic, protected by Forest Act and Nature Conservation Ordinance) and *Erythrina decora* (endemic, protected by Forest Act) from the general area. The Farm Gai//Khaisa no. 159 is located to the south of the most important parts of the Mountain and Karstveld although there are limestone outcrops (See Figure 5) which potentially have some of the important species mentioned in Table 5 within the specialist study conducted by Peter Cunningham.

However, none of the larger trees and shrubs is expected to be exclusively associated with the Farm Gai //Khaisa no. 159 development site (Cunningham, 2020).

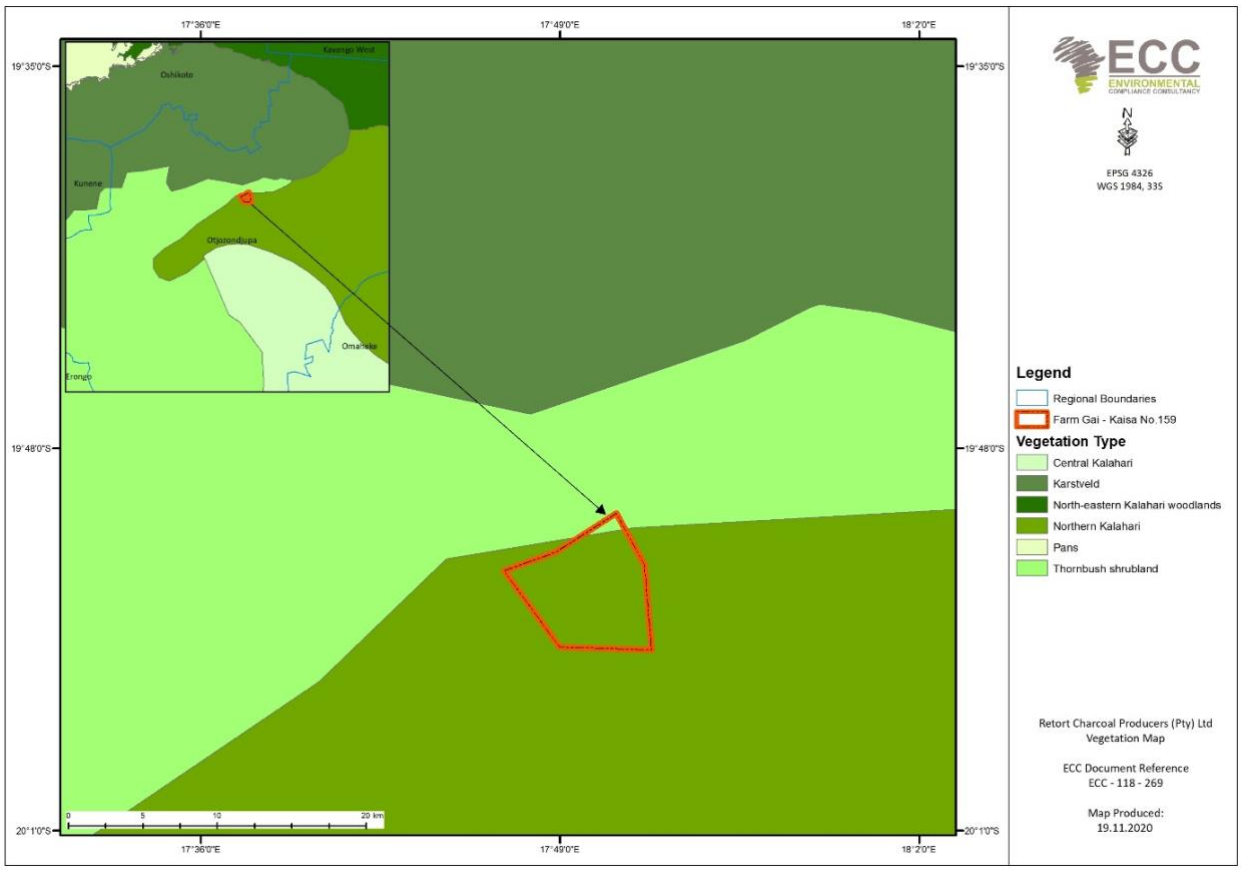


FIGURE 16 - REGIONAL VEGETATION MAP OF THE STUDY AREA

5.5.1 ENCROACHER BUSH SPECIES THAT MAY POTENTIALLY OCCUR ON FARM GAI//KHAISA NO.159

Some potential encroacher species that may likely occur on the project site is illustrated below. These species are useful as biomass for charcoal production.

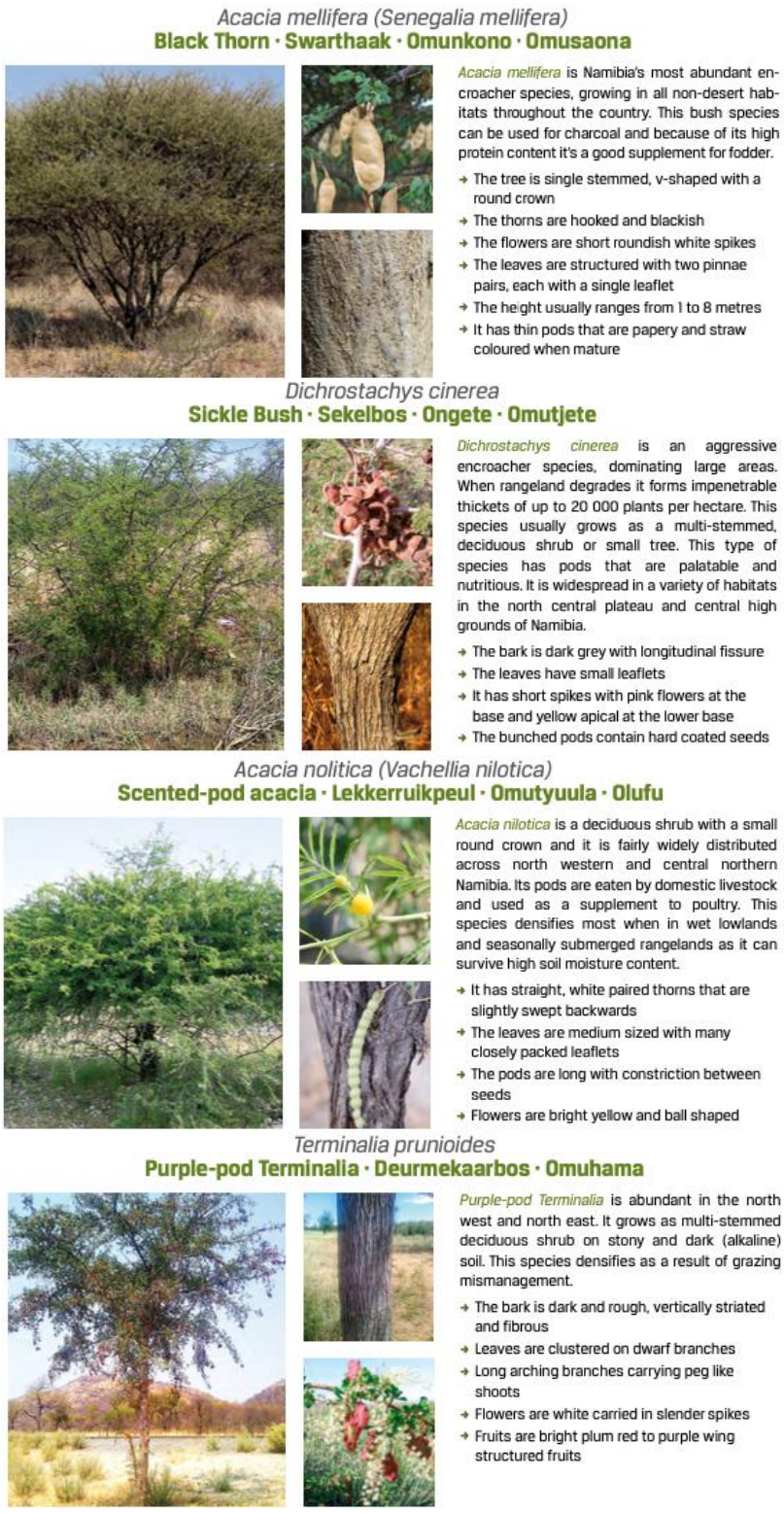


FIGURE 17: ENCROACHER BUSH SPECIES WITH LIKELY OCCURRENCE POTENTIAL ON FARM GAI//KHAISA NO.159 (DAS,2017)

5.6 FAUNA SPECIES

Namibia supports approximately 30% of the continent's species diversity of which at least 22% or 55 species of Namibian lizards are classified as endemics. Sixty-seven (67%) of Namibian reptiles are classified as species of "conservation concern" (Cunningham, 2020).

As endemism trends in Namibia show a clear decline to the east, the number of endemic fauna species possible is expected to be low, although the overall terrestrial biodiversity in the study area ranges from medium to high, showing a clear increase towards the higher elevations associated with the Otavi Mountains. The number of mammal species ranges between 76 and 90, the number of bird species is between 201 and 230, with 71 – 80 reptile species, 12 – 15 frog species and 10 – 11 scorpion species that could be expected (Mendelsohn et al., 2002). On a local scale it is expected that diversity increases with the increase in habitats, which is closely coupled to shelter, food and water availability and migration routes. Elevation and water availability play a prominent role in this regard and is directly related to the increase in terrestrial diversity towards the Otavi Mountains.

Ephemeral drainage lines are viewed as important for flora as most of the larger specimens, protected and otherwise, are often associated with such areas and serve as habitat for various vertebrate fauna – to amphibians it is a suitable habitat and breeding site, to reptiles it is a foraging site, and to birds and mammals it provides drinking water, shade and shelter. Birds often use the higher vegetation near pans and drainage lines for roosting, nesting and perching.

The dominant land use of the surroundings is extensive agriculture, in particular large livestock farming. To protect their livestock, farmers are required to manage predators such as cheetahs, leopards and caracals.

None of the reptiles, amphibians, mammals and birds that may occur within the general Kombat study area are expected to be exclusively associated with the farm Gai//Khaisa no. 159 development site (Cunningham, 2020). See specialist vertebrate fauna and flora associated with farm Gai//Khaisa no.159 study conducted by Peter Cunningham in Appendix E. The specialist study also lists all species with a conservation status that is expected to occur within the general Kombat area.

5.7 SOCIO-ECONOMIC ENVIRONMENT

The study area is located within the Otjozondjupa Region. Otjozondjupa is one of the bigger regions of Namibia and is located in the northern half of the country, bordering the Khomas and Omaheke Regions in the south, the Erongo and Kunene Regions in the west and the Oshikoto, Kavango-West and Kavango-East Regions in the north. In the east the region stretches along the international border with Botswana.

5.7.1 DEMOGRAPHY

Namibia is one of the least densely populated countries in the world (2.8 persons per km^2). Vast areas of Namibia are without people, in contrast to some fairly dense concentrations, such as the central-north and along the Kavango River. The population density of the Otjozondjupa Region, where the project is located, is low (1.5 persons per km^2) when compared to the national average, and the total population of the region was estimated at 154,342 in 2016. In 2011 54% of the total population in the region lived in urban settlements – this figure has increased to 66% in 2016 (NSA, 2017), confirming the current growth of urban areas like Otjiwarongo.

Otjiherero and Oshiwambo are the most spoken languages in the region (both 29% of all households) and the average household size in the Otjozondjupa Region comprises 3.9 persons. The literacy rate for the

region is 83% for people older than 15 years. Ninety-eight (98%) percent of all households have access to safe water, 39% have no toilet facility, 63% have electricity for lighting and 48% of the population depend on open fires to prepare food (NSA, 2017).

5.7.2 GOVERNANCE

Namibia is divided into 14 regions, subdivided by 121 constituencies. The Otjozondjupa Region is divided into seven constituencies. Each region has a regional council, per constituency. Towns are governed through local authorities, in the form of municipalities, town councils and village authorities.

Otjiwarongo is the capital and also the largest town of the Otjozondjupa Region. Many of the region's head offices are located in the town. Other towns of the region are Grootfontein, Otavi, Okahandja and Okakarara.

5.7.3 EMPLOYMENT

Low education levels affect employability and prevents many households to earn a decent income. Of all people employed in Namibia, 63.5% are not higher qualified than junior secondary level (Grade 10 and lower). In total 11.8% of all people employed had no formal education. In total 29.1% of all people employed fall in the category "elementary occupation" and 15.2% in the category "skilled agriculture" (NSA, 2019).

The rate of unemployment is estimated at 33.4% for Namibia, using the broad definition of unemployment. More than 60% of the population is over 15 years of age and about one-third of the total population can be regarded as part of the labour force. The unemployment rate in rural and urban areas is almost the same – 33.4% in urban areas and 33.5% in rural areas. The highest unemployment rates are found amongst persons with education levels lower that junior secondary. The unemployment rate of persons with no formal education is 28.6%, with primary education 34.6% and with junior secondary education 32.7% (NSA, 2019).

5.7.4 ECONOMY

The economy of the Otjozondjupa Region is predominantly agriculture-based. Extensive livestock farming forms the livelihood of many people and is one of the reasons for the low intensity land use over much of the 105,460 km^2 the region covers, the low total population as well as the low population density. Large parts of the region are covered by commercial and communal farms, mainly for cattle ranching. Guest farms and hunting farms are also common. On both commercial and communal land, bush encroachment decreased the carrying capacity of the farms markedly over the last four decades. The invader bush is managed in several ways, one of which is the production of charcoal for export. In recent times the charcoal industry became a significant source of income and employment in the rural parts of Namibia, including the Otjozondjupa Region.

Several mining activities emerged in the Otjozondjupa Region during the last decade and had a strong influence on the regional demography and economy – not only as a result of the establishment of the Otjikoto Gold Mine of B2Gold between Otavi and Otjiwarongo, but also as a result of other mining projects such as Okuruso and Okanjande and the Whale Rock cement factory of Cheetah Cement near Otjiwarongo and Ohorongo Cement near Otavi.

Several new government offices have been established in Otjiwarongo as part of an effort to accentuate the town as the regional capital. Other factors that influenced the socio-economy of the region, is the

continuous growth of the tourism industry as well as the growing importance of the charcoal industry. Combined, all these factors had a cumulative role in the changing land-use patterns and socio-economic landscape of the region (and the towns), which can only be quantified when comparisons from the next national census with the 2011 census are possible.

Since 2016, Namibia recorded slow economic growth, registering an estimated growth of only 1.1% in 2016. The primary and secondary industries contracted by 2.0 and 7.8% respectively. During 2017 the economy contracted by 1.7, 0.7 and 1.9% in the first, second and third quarters respectively (NSA, 2019). Despite the more positive expectations, the economy retracted to an average growth of not more than 1% annually since 2017.

5.7.5 HEALTH

Since independence in 1990, the health status of Namibia has increased steadily with a remarkable improvement in access to primary health facilities and medical infrastructure. In 2015 the World Health Organization (WHO) recommended strategic priorities of the health system in Namibia which entail improved governance, an improved health information system, emergency preparedness, risk reduction and response, preventative health care and the combating of HIV/AIDS and TB (WHO, 2016).

According to the website of the Ministry of Health and Social Services (MoHSS) the Otjozondjupa Region has a total of 20 primary health care facilities, including three health centres, 18 clinics and four district hospitals – in Grootfontein, Okahandja, Okakarara and Otjiwarongo. There are also private hospitals in Otjiwarongo and Grootfontein.

Like elsewhere in Namibia, HIV/AIDS remains a major reason for low life expectancy and is one of the leading causes of death in the Otjozondjupa Region. HIV/AIDS remains the leading cause of death and premature mortality for all ages, killing up to half of all males and females aged 40 - 44 years in 2013 (IHME, 2016). Tuberculosis (TB) is a leading killer of people infected by HIV/AIDS, and Namibia had a high burden in 2018, 35% of people notified with TB were infected with HIV. The country is included among the top 30 high-burden TB countries in the world, with an estimated incidence rate of 423 per 100,000 people and 60 fatalities per 100,000 people in 2018 (retrieved from www.mhss.gov.na).

In 2016 it was estimated that 15% of all people in the Otjozondjupa Region are younger than five years of age and 22% between five and fourteen years of age. Only 18.3% of children younger than five years of age in the region attended programs of early childhood development in 2016 (NSA, 2017), implying that access to these facilities and access to infant health care facilities is limited.

The largest percentage of people in the Otjozondjupa Region utilize hospitals for medical care (45.9%) and only 25% have to rely on a clinic. Less than 10% of the total population of the Otjozondjupa Region receive their medical treatment from a doctor (NSA, 2017). The death rate of 13.1 deaths per 1000 people for the region was higher than the national average of 10.8% in 2016 (NSA, 2017).

As of the beginning of 2020 the coronavirus disease (COVID-19), caused illness in humans at a pandemic scale and has resulted in an increasing number of deaths worldwide. The viral outbreak is adversely affecting various socio-economic activities globally, and with reports of the increasing number of people testing positive, it is anticipated that this may have significant impacts on the operations of various economic sectors in Namibia too. The disease caused many countries to enter a state of emergency and a controlled lockdown mode, with dire economic consequences. In addition, these measures have a detrimental effect on tourism – and Namibia is in both cases no exception.

5.7.6 HERITAGE

In Namibia several mountains are closely coupled to heritage sites, in particular sites with cultural, historical or archaeological importance, and it is possible that this applies to some of the higher elevations on farm Gai//Khaisa no.159 as well. Drainage lines were also important routes for early inhabitants, and it could be expected that some heritage assets along the tributaries of the Omatako River could be found. The Etjo Mountains are also known for its paleontological importance, mainly due to the dinosaur tracks at Otjihaenamaparero, which is a proclaimed national monument. It is to be expected that more paleontological sites of the same kind may exist in the wider landscape associated with the Etjo Mountains including farm Gai//Khaisa no.159.

The archaeological assessment conducted by Dr. John Kinahan (Appendix F) reported that the area is not archaeologically sensitive based on the indicative value of potential surface finds and existing survey data to which the assessment was limited. Dr. Kinahan cautions that hidden or buried archaeological or palaeontological remains might be exposed as the project proceeds (2020). In cases where heritage sites are discovered the chance-find procedure will be used.

The survey identified two recently dated graves and a possible graveyard in close vicinity of the farmhouse on the farm Gai//Khaisa no.159. Figures 18 and 19 are sourced from Dr. Kinahan's specialist report (2020).

FIGURE 19: GRAVE OF THEODOR, FARMWORKER (1966), WITH HEADSTONE CIRCLED. LOCATED 200M SE OF THE FARMHOUSE (-19.89653S 17.83071E)

FIGURE 18: GRAVE OF ROSEMARIE (1948) AND ERNST ADALBERT (1963) VON GOLDFUS. LOCATED 240M NE OF FARMHOUSE (-19.89643S 17.83109E)

The graves are not classified as archaeologically sensitive and no further investigation is necessary). However, these graves are protected under the Burial Place Ordinance (27 of 1966) to prohibit the desecration or disturbance of graves in burial places and to regulate matters relating to the removal or disposal of dead bodies (Kinahan, 2020). The locality of the grave sites is shown in Figure 20

FIGURE 20 - LOCATION OF THE GRAVE SITES FROM AN AERIAL VIEWPOINT

6 IDENTIFICATION AND EVALUATION OF IMPACTS

This chapter outlines ECCs method to identify and evaluate impacts arising from the proposed project. The findings of the assessment are presented in chapter 7.

The evaluation and identification of the environmental and social impacts require the assessment of the project characteristics against the baseline characteristics, ensuring all potentially significant impacts are identified and assessed. The significance of an impact is determined by taking into consideration the combination of the sensitivity and importance/value of environmental and social receptors that may be affected by the proposed project, the nature and characteristics of the impact, and the magnitude of potential change. The magnitude of change (the impact) is the identifiable changes to the existing environment which may be negligible, low, minor, moderate, high, or very high; temporary/short term, long-term or permanent; and either beneficial or adverse.

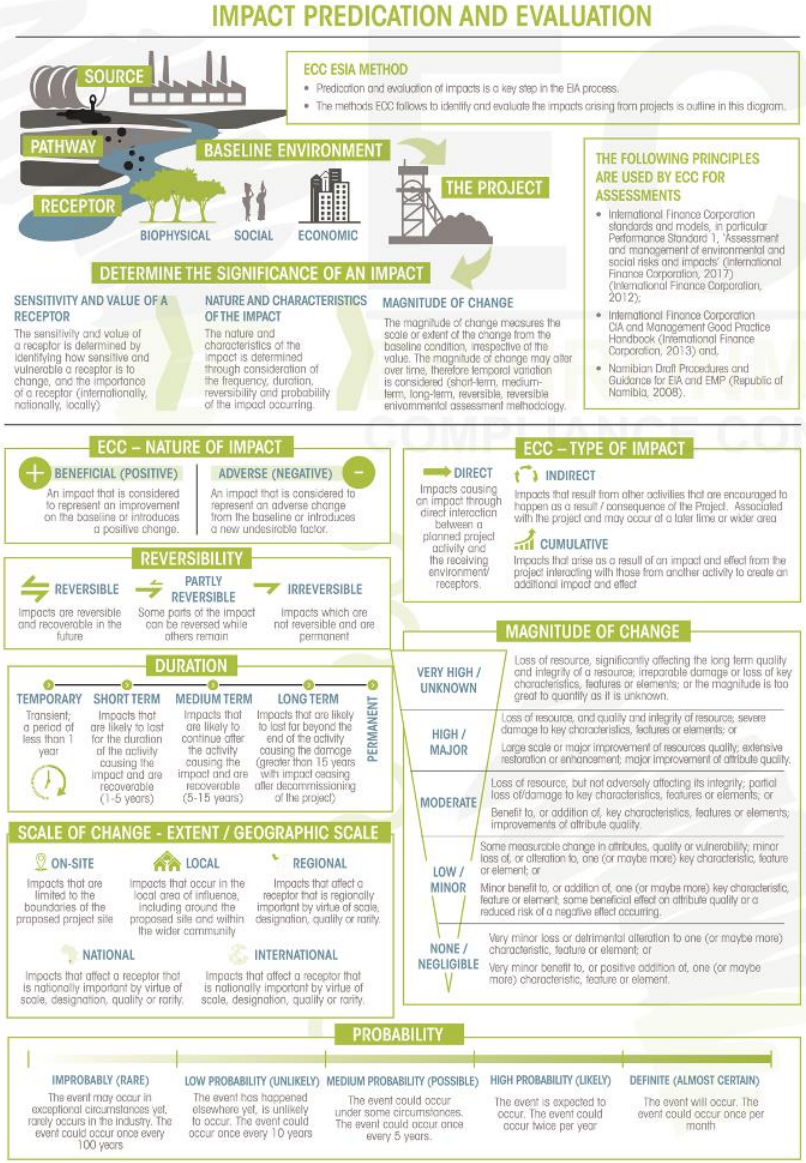
This chapter provides the following:

- Details on the assessment guidance used to assess impacts;
- Lists the limitations, uncertainties and assumptions with regards to the assessment methodology;
- Details how impacts were identified and evaluated, and how the level of significance was derived; and
- Details how mitigation was applied in the assessment and how additional mitigation was identified.

6.1 ASSESSMENT GUIDANCE

The principal documents used to inform the assessment method are:

- International Finance Corporation standards and models, in particular Performance Standard 1, ‘Assessment and management of environmental and social risks and impacts’ (International Finance Corporation, 2017) (International Finance Corporation, 2012);
- International Finance Corporation CIA and Management Good Practice Handbook (International Finance Corporation, 2013); and
- Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008).



- To ensure the beneficial impacts are brought out in the assessment, green has been applied to ensure the different type of impact is clear.
- The significance of impacts has been derived at by applying the identified thresholds for receptor sensitivity and magnitude of change, as well as the definition of significance. Moderate and major adverse impacts are considered as significant.
- The following thresholds were therefore used to double check the assessment of significance had been applied appropriately: a significant impact would meet at least one of the following criteria:
- It exceeds widely recognized levels of acceptable change;
- It threatens or enhances the viability or integrity of a receptor or receptor group of concern; and
- It is likely to be material to the ultimate decision about whether or not the environmental clearance certificate is granted.

			SIGNIFICANCE OF IMPACT			
		Significance of Impact	Impacts are considered to be face factors that are unlikely to be critical to decision-making	Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.	Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/ or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/ features that are unique and which, if lost, cannot be replaced or relocated.	Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non-reversible on a national scale and/ or have international significance or result in a legislative non-compliance.
	Biophysical	***Social***		***Low***	***Minor (2)***	***Moderate (3)***	***Major (4)***
SENSITIVITY	A biophysical receptor that is protected under legislation or internation convention (CITIES) listed as rare, threatened or endangered IUCN specidies. Highly valued/ sensitive resource/ receptors.	Those affected people/ communities will not be able to adapt to changes or continue to maintain pre-impact livelihoods.	***High (3)***	***Minor (3)***	***Moderate (6)***	***Major (9)***	***Major (12)***
	Of value, importance/ rarity on a regional scale, and with limited potential for substitution; and/or not protected or listed (globally) but may be a rare or threatened species in the country; with little resilience to ecosystem changes, important to ecosystem functions, or one under threat or population decline.	Able to adapt with some difficulty and maintain pre-impact status but only with a degree of support	***Medium (2)***	***Low (2)***	***Minor (4)***	***Moderate (6)***	***Major (8)***
	Not protected or listed as common/abundant; or not critical to other ecosystems functions.	Those affected are able to adapt with relative ease and maintain pre-impact status. There is no preceptible chnage to people's livelihood.	***Low (1)***	***Low (1)***	***Low (2)***	***Minor (3)***	***Moderate (4)***

SENSITIVITY AND VALUE

Low
Of value, importance or rarity on a local scale; and/or not particularly sensitive to change or has considerable capacity to accommodate a change.

Medium
Of value, importance or rarity on a regional scale, and with limited potential for substitution; and/or moderate sensitivity to change, or moderate capacity to accommodate a change.

High
Of value, importance or rarity on an international and national scale, and with very limited potential for substitution; and/or very sensitive to change or has little capacity to accommodate a change.

MITIGATION

Mitigation comprises a hierarchy of measures ranging from preventative environmental impacts by avoidance, to measures that provide opportunities for environmental enhancement. The mitigation hierarchy is avoidance; reduction at source; reduction at receptor level; repairing and correcting; compensation; remediation; and enhancement.

Mitigation measures can be split into three distinct categories, broadly defined as:

Standard practices and other best practice measures for avoiding and minimizing environmental impacts. These are considered as good practice measures.

Actions undertaken by the EIA process that influence the design process, through implementing design measures that would entirely avoid or eliminate an impact or modifying the design through the inclusion of environmental features to reduce the magnitude of change. These are considered as embeded mitigation.

Specified additional measures or follow-up action to be implemented to further reduce adverse impacts that remain after the incorporation of embedded mitigation. These are considered as additional mitigation.

The EIA is an iterative process whereby the outcomes of the environmental and social assessments inform the project.

The EMP provides the good practice mitigation measures and specified additional measures or follow-up action ECC has recommended for the project.

LOW – MAJOR (BENEFICIAL)

Impacts are considered to be beneficial to the environment and society:

Low (negative) 0 - 25
Impacts are considered to be local factors that are unlikely to be critical to decision-making.

Minor (negative) 25 - 50
Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.

Moderate (negative) 50 - 75
Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/ or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/ features that are unique and which, if lost, cannot be replaced or relocated.

Major (negative) 75 - 100
Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance.

FIGURE 21: ECC'S IMPACT ASSESSMENT METHODOLOGY

6.2 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

The following limitations and uncertainties associated with the assessment methodology were observed:

- Topic specific assessment guidance has not been developed in Namibia. A generic assessment methodology was applied to all topics using IFC guidance and professional judgement.

A number of limitations and uncertainties were acknowledged during the EIA process. In line with EIA best practice, assumptions have been made based on realistic worst-case scenarios, thereby ensuring that the worst-case potential environmental impacts are identified and assessed. Table 5 contains the assumptions and uncertainties identified during the assessment process.

Where uncertainties exist, a cautious approach has been applied, allowing the worst-case scenario for potential impacts to be identified. Where limitation and uncertainties exist, assumptions have been made and applied during the assessment process. These have been clearly described in the baseline section.

TABLE 6 – SUMMARY OF LIMITATION, UNCERTAINTIES AND ASSUMPTION OF THE EIA PROCESS

LIMITATION / UNCERTAINTY	ASSUMPTION
Program of activities	A detailed timeline of the construction and operation activities is not available at this point in time.
Number of workers and area they will come from	It is planned that a full-time team may comprise up to 50 staff members and contract workers. The numbers of contractors are expected to include the following teams: the construction team (temporary); the bush thinning team (permanent) and the charcoal production team (permanent). Moreover, staff will be sourced from the nearby local authority areas such as Kombat and Grootfontein. It is unclear at this stage if all 50 workers may be deployed on site at any given time or only seasonally and phase specific.
Access route and creation of new tracks	The creation of new tracks or access roads will be avoided, and existing tracks and routes will be used as far as possible. While every effort will be made to minimize environmental damage, in some cases it may be necessary to clear some areas to create small roads to access clumps of vegetation identified for thinning. In areas overgrown by sickle bush mechanical methods are not advised for thinning.

7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MANAGEMENT MEASURES

This chapter presents the findings of the EIA for the proposed project as per the EIA process, scope and methodology set out in Chapter 2 and Chapter 6. A range of potential impacts have been identified that may arise as a result of the proposed project. The aim of this EIA report is to focus on the significant impacts that may arise as a result of the proposed project. This chapter therefore only considers the significant impacts and or those that may have specific interest to the community and stakeholders. A summary of impacts that are considered significant is discussed in this section.

When undertaking the assessment exercise, the design of the proposed project and best practice measures were considered to ensure the likely significant effects and any required additional mitigation measures were identified. A summary of the potential impacts and mitigation or control measures are discussed below.

The following topics were considered during the scoping phase:

- Surface water and groundwater;
- Soils and topography;
- Landscape (visual impacts, sense of place);
- Socioeconomics (employment, demographics, and land-use);
- Noise;
- Ecology (fauna and flora);
- Air quality (emissions, pollutants and dust); and
- Cultural heritage.

For each potential significant or sensitive impact, a summary is provided which includes the activity that would cause an impact; the potential impacts; embedded or best practice mitigation (stated where required or available); the sensitivity of receptor that would be impacted; the severity, duration and probability of impacts; the significance of impacts before mitigation and after mitigation measures are applied.

7.1 IMPACTS NOT CONSIDERED SIGNIFICANT

As a result of an iterative development process, mitigation has been incorporated and embedded into the project, thereby designing out potential environmental and social impacts or reducing the potential impact so that it is not significant. Best practice has also played a role in avoiding or reducing potential impacts. The EMP provides best practice measures, management and monitoring for all impacts.

Impacts that have been assessed as not being significant are summarised in Table 6 below and not discussed further.

The listed impacts below are of a non-significant nature and do not render any threat to the environment in a way that adversely challenges the resilience of it to continue in its modified form.

TABLE 7: SUMMARY OF IMPACTS DEEMED NOT SIGNIFICANT

ENVIRONMENT OR SOCIAL TOPIC	POTENTIAL IMPACT	SUMMARY OF ASSESSMENT FINDINGS
Groundwater	The project may store diesel fuel on site (14 000 liters at any given moment). Hydrocarbon leaks and spills could enter the aquifer causing contamination.	Findings are that with the mitigation measures outlined in the EMP, it is unlikely that groundwater may be impacted upon. Even though the site is on a fractured aquifer, infiltration will be unlikely with the establishment of well bunded storage, which should have the capacity of not less than a 110 percent of the volume to be stored.
Impacts on soil	Vegetation clearing to support project activities, increased exposure due to vegetation clearance can cause soil erosion and compaction from heavy machinery.	The proposed project area is located on an already disturbed land. Erosion control and prevention measures are to be in place when vegetation clearance is required.
Visual impacts	Operational activities may increase visible smoke fumes and dust emissions on site.	Mitigation measures through the installation of dust extractors at the industrial sieving, bagging, and conveying operations are outlined in the EMP. The proposed industrial grade retort machinery reduces smoke emissions by 95%. Dust suppression, collection and handling mechanisms shall be applied on the project site. Specific activities that may generate dust and impact road users on the D2512 that run through farm Gai//Khaisa no.159 shall be minimized during high wind events.
Public health impacts	Health nuisances impacts due to ambient air quality and dust pollution.	All employees are to be provided with the appropriate Personnel Protective Equipment (PPE), which should be utilised at all times. Safety inductions will be conducted with the workers before duties commence.
Fire risks and occurrences	Bush thinning activities may increase the risk occurrence of veld fires through anthropogenic means (human error). Fire risks may result in	With the mitigation measures such as a fire protection and prevention plan (to be developed by the proponent), with inclusion of emergency response and firefighting procedures, fire risk can be managed.

ENVIRONMENT OR SOCIAL TOPIC	POTENTIAL IMPACT	SUMMARY OF ASSESSMENT FINDINGS
	property damage and possible injury to personnel.	
Terrestrial ecology and biodiversity	Increased movement of transportation trucks and vehicles for construction and operation activities may results into residing, nesting and slow-moving organisms to be disturbed, injured or killed.	As outlined in the EMP they shall make use of existing tracks and routes only and movements are to be restricted to daytime operating hours. No driving off designated access routes (into the bush) is allowed. However, Where new tracks need to be created the potential path should be surveyed and marked on foot first to observe, identify and relocate any nesting material and possible slow-moving organisms or plants with a conservation status to another portion on the farm.

7.2 Scoping Assessment Findings

When undertaking the scoping exercise, the design of the project and best practice measures were considered to ensure the likely significant effects and any required additional mitigation measures were identified. A summary of the potential impacts and mitigation or control measures were discussed.

Table 7 sets out the findings of the scoping assessment phase. Activities that could be the source of an impact have been listed, followed by receptors that could be affected. The pathway between the source and the receptor has been identified where both are present. Where an activity or receptor has not been identified, an impact is unlikely, thus no further assessment or justification is provided. Where the activity, receptor and pathway have been identified, a justification has been provided documenting if further assessment is required or not required.

Due to the nature and localised scale of the construction and operational activities, and the environmental context of the site, the potential environmental and social effects are limited and unlikely to be significant. The only area where uncertainty remained during the scoping phase was the potential effects on human receptors from the increase movement in the area and dust pollution and visual impacts, namely residents in the nearby houses. Further consideration of the potential effects on humans was therefore undertaken and results are presented in the next section.

TABLE 8- SIGNIFICANT IMPACTS AND PROPOSED MITIGATION MEASURES

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Construction and operation of the processing plant	**Community**	Triggers job creation, skills development and downstream spending opportunities within the local and regional economy	Beneficial Direct Reversible Minor Short term Local Possible	Low	Minor	Low (2)	- Maximize local employment; - As far as possible promote local procurement of goods and services; and - Enhance development of local skills where possible.	Low beneficial
Mobile and static equipment In use	**Workforce (health and safety on site)**	Equipment used during construction and plant operations may cause injury to personnel	Adverse Direct Partly Reversible Negligible Permanent On-site Possible	Major	Medium	Moderate (6)	- Safety induction training sessions should be given to all technicians and field staff prior to commencement of their shifts; - Risk identification and suitable prevention measures should be employed within the plant area to eliminate potential impacts; - Routine medical checks	Low (2)

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							to be conducted on personnel to ascertain fitness for work levels; - Frequent maintenance of all equipment and daily inspections done; and - No unauthorized use of equipment is allowed.	
Ground control: Safety of neighbouring farm residents and their livestock.	**Community and livestock**	Presence of workers (during construction and operation phases) may pose personal safety and poaching risks to neighbours surrounding the project site.	Adverse Direct Reversible Moderate Short-term Local Possible	Medium	Minor	Minor (4)	- Develop and implement an operation manual or procedures to work on private farms and implement monitoring programs thereafter to control ground movements; - Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon; - Ensure appropriate supervision of all activities; - Raise awareness and	Low (2)

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							sensitize employees about contentious issues such as stock theft and poaching; and - Accidents and incidents need to be reported to project manager and recorded in incident register.	
Site establishment of laydown area and plant on a previously disturbed area	**Terrestrial ecology and biodiversity**	Impacts to soil during construction of laydown area and plant site	Adverse Direct Reversible None/ negligible Short-term On-site Unlikely	Low	Low	Low (1)	- Ensure erosion control and prevention measures are in place when levelling the ground for site establishment; - Install and ensure that stormwater diversions are in place if the construction site of the plant is in a water flow path. - Ensure the site's spill prevention procedures and spill kits are on site.	Low (1)
Fuel and other hydrocarbons	**Groundwater quality**	Contamination due to site	Adverse Direct	Medium	Minor	Minor (4)	- Good house keeping - Training through toolbox talks and induction	Low (2)

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
stored on site		operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources.	Partly reversible Minor Short-term Regional Unlikely				- All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil - Spill kits and absorption material available during fuel delivery, storage or use - Accidental spills and leaks (including absorption material) to be cleaned as soon as possible - Major spills to be reported, also to the authorities - Maintenance and service schedules on equipment is in place - Store bulk fuel in adequate containment areas (non-porous surface, bunded) - No damaged containers in use - Preventative measures	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers); - Refueling will be done in areas with adequate preventative measures in place.	
Waste generation on site	**Surface water**	Inadequate management of waste on site can litter and pollute surface drainage channels	Adverse Direct Reversible Minor Temporary On-site Unlikely	Low	Low	Low (1)	- Good housekeeping - Training and awareness through toolbox talks and induction - Implement a Standard Operational Procedure on waste management, from cradle to grave for all kinds of waste possible on-site (i.e. domestic, mineral, hydrocarbons, hazardous, etc.) - Raise awareness about the importance of responsible waste management - Implement a culture of	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							correct waste collection, waste segregation and waste disposal - Avoid hazardous waste on site - Wastewater discharges will be contained – no disposal of waste water	
Operation activities i.e., (offloading, crushing, sieving and general handling of charcoal products)	**Air quality**	Reduction of the ambient air quality in the area; Charcoal dust emission impacts	Adverse Direct Reversible Moderate Short term On-site Almost certain	Low	Moderate	Minor (3)	- An effective charcoal dust extractor and handling unit to be installed at the industrial sieving, bagging and conveying operations; - Any charcoal dust related issues and complaints shall be registered, and mitigation steps taken to address complaints where necessary i.e., dust suppression; and - Monitor air quality to detect areas of concern by implementing dust monitoring stations around the plant	Low (2)

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							proportional to the direction of potential sensitive receptors.	
Continuous processing of biomass to produce charcoal	**Ambient noise**	Production noise emissions from biomass production plant; the operation of mechanised bush thinning machinery on farm Gai//Khaisa no.159.	Adverse Direct Reversible Moderate Short term On-site Possible	Low	Low	Low (2)	- Develop a noise management standard operating procedure for the plant and the bush thinning operations which shall include, but not limited to: - Fitting sound mufflers on all machinery where applicable; - Maintain up to date and complete service levels of all moving and stationery machinery; - Throttle back or turn off machinery that is not in use; and - Avoid creating and propagating unnecessary sound emitting noise on site on and after hours.	Low (2)
Progressive	**Heritage**	Two identified	Adverse	Low	Low	Low (2)	- The possibility of	Low (1)

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
bush thinning activities on farm.		heritage sites (recently dated graves) found close to the farmhouse	Direct Partly Reversible Moderate Temporary On-site				uncovering hidden or buried archaeological or paleontological sites will require the chance-find procedure to be adopted proactively on the project site. - Should the need arise to remove the existing graves then the direction of the Burial Place Ordinance (27 of 1966) should be followed.	

8 ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed project is presented in Appendix A. It provides management options to ensure the impacts of the proposed project are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary.

The management measures should be adhered to during all stages of the exploration activities. All persons involved and partaking in the proposed activities should be made aware of the measures outlined in the EMP to ensure activities are conducted in an environmentally responsible manner.

The objectives of the EMP are:

- To include all components of the development and operations of the project;
- To prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- To monitor and audit the performance of operational personnel in applying such controls; and
- To ensure that appropriate environmental training is provided to responsible operational personnel.

9 CONCLUSION

ECC's EIA methodology was used to undertake the environmental assessment for the proposed project to identify if there is potential for significant effects to occur as a result of the proposed project. Through the scoping process, the only risk to the environment was the potential for visual impacts and noise levels to increase thereby impacting human receptors in the area. All other social and environmental receptors were scoped out as significant effects were unlikely and therefore no further assessment was deemed necessary.

Through further analysis and identification of mitigation and management methods, the assessment concludes that the likely significance of effects on humans from noise impacts is expected to be minor and prior awareness and communication about the project shall be encouraged. The identified burial sites (graves) found in close vicinity to the farmhouse should not be disturbed even though they are not archeologically sensitive. Should the project need to proceed in this area the direction of the Burial Place Ordinance (27 of 1966) should be followed. The chance-find procedure should always be adhered to whenever new possible sites are suspected.

Various best practice and mitigation measures have been identified to avoid and reduce effects as far as reasonably practical, as well as ensure the environment is protected and unforeseen effect and environmental disturbances are avoided.

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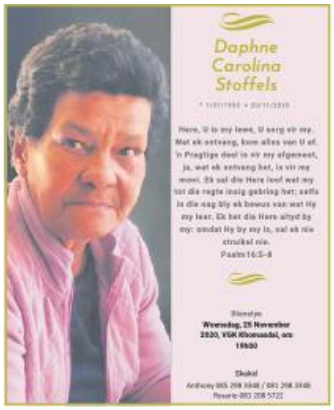
APPENDIX A: ENVIRONMENTAL MANAGEMENT PLAN (CONSTRUCTION AND OPERATION OF A BIOMASS PROCESSING PLANT AND STORAGE AREA)

APPENDIX B: NON- TECHNICAL SUMMARY

APPENDIX C: PUBLIC CONSULTATION EVIDENCE



NOTICE OF AN ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PROPOSED MECHANIZED BUSH THINNING OPERATIONS AND CONSTRUCTION OF A BIOMASS PROCESSING, STORAGE, AND PACKAGING PLANT ON FARM GAI – KAISA NO. 159 NEAR KOMBAT, OTJOZONDJUPA REGION, NAMIBIA

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Retort Charcoal Producers (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Otjozondjupa Region, Namibia

Project: The proposed mechanized bush thinning operations and construction of a biomass processing, storage and packaging plant on farm Gai – Kaisa No. 159 in the Otjozondjupa Region, Namibia.

Proposed activity: : Key infrastructure additions and activities on the site will include: The mechanized bush thinning of encroacher species and establishment of a biomass processing, storage, and packaging plant, which includes carbonization of biomass as well as manufacturing of briquettes.

Application for environmental clearance certificate: In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Retort Charcoal Producers (Pty) Ltd Namibia is required to apply for an environmental certificate from the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

Purpose of the review and registration period: The purpose of the registration and review period is to introduce the proposed project by way of a Non-Technical Summary (NTS) to all who register as Interested and Affected Parties (I&APs). The same will be afforded an opportunity to comment on the NTS and to ensure that potential issues and concerns are brought forward, captured by ECC and considered further in the assessment process.

Registration period: Effective from 17th November to 1st December 2020.

The team at ECC will be in contact with all registered I&APs to review any other documents after the registration period referred to above.

How you can participate: ECC is undertaking the required environmental assessment and public participation process in terms of the Environmental Management Act. I&APs and stakeholders are required to register for the project at: https://eccenvironmental.com/projects/

Environmental Compliance Consultancy Close Corporation
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout and Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 816 697 608
E-mail: info@eccenvironmental.com
Website: https://eccenvironmental.com/projects/
Project ID: : ECC-118-269-ADV-12-A

NOTICE OF AN ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS EXPLORATION ACTIVITIES ON EPL 7729 AND EPL 7935 IN THE OTJOZONDJUPA REGION, NAMIBIA

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Cheetah Minerals Exploration (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Otjozondjupa Region, Namibia

Project: Exploration activities on EPL 7729 and EPL 7935 for base and rare metals, and precious metals in the Otjozondjupa Region.

Proposed activity: The proponent intends to carry out exploration activities for base and rare metals, and precious metals on EPL 7729 and EPL 7935. Both EPLs are located within the Otjozondjupa Region, west of the B1 and east of Erindi Private Game Reserve. Exploration methods may include ground geophysical surveys (non-invasive), soil and stream sediment sampling and geological mapping. Exploration drilling is also planned.

Application for environmental clearance certificate: In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Cheetah Minerals Exploration (Pty) Ltd is required to apply for an environmental certificate from the competent authority, the Ministry of Environment, Forestry and Tourism, for the mentioned project.

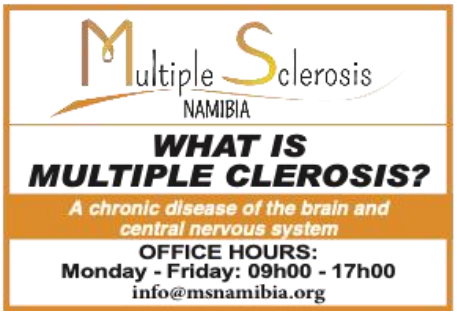
Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed project and to afford Interested and Affected Parties (I&APs) an opportunity to register and comment on the Non-Technical Summary (NTS) and to ensure that potential issues and concerns are brought forward, captured and considered further in the assessment process.

Registration period: Effective from 17th November to 1st December 2020.

The team at ECC will be in contact with all registered I&APs to review any other documents after the registration period referred to above.

How you can participate: ECC is undertaking the required environmental assessment and public participation process in terms of the Act. I&APs and stakeholders are required to register for the project at: https://eccenvironmental.com/projects/

Environmental Compliance Consultancy Close Corporation
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout and Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 816 697 608
E-mail: info@eccenvironmental.com
Website: https://eccenvironmental.com/projects/
Project ID: ECC-117-323-ADT-04-B



NOTICE OF AN ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PROPOSED MECHANIZED BUSH THINNING OPERATIONS AND CONSTRUCTION OF A BIOMASS PROCESSING, STORAGE, AND PACKAGING PLANT ON FARM GAI – KAISA NO. 159 NEAR KOMBAT, OTJOZONDJUPA REGION, NAMIBIA

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Retort Charcoal Producers (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Otjozondjupa Region, Namibia

Project: The proposed mechanized bush thinning operations and construction of a biomass processing, storage and packaging plant on farm Gai – Kaisa No. 159 in the Otjozondjupa Region, Namibia.

Proposed activity: Key infrastructure additions and activities on the site will include: The mechanized bush thinning of encroacher species and establishment of a biomass processing, storage, and packaging plant, which includes carbonization of biomass as well as manufacturing of briquettes.

Application for environmental clearance certificate: In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Retort Charcoal Producers (Pty) Ltd Namibia is required to apply for an environmental certificate from the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

Purpose of the review and registration period: The purpose of the registration and review period is to introduce the proposed project by way of a Non-Technical Summary (NTS) to all who register as Interested and Affected Parties (I&APs). The same will be afforded an opportunity to comment on the NTS and to ensure that potential issues and concerns are brought forward, captured by ECC and considered further in the assessment process.

Registration period: Effective from **17th November to 1st December 2020**.

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How you can participate: ECC is undertaking the required environmental assessment and publicipartic-patio process in terms of the Environmental Management Act. I&APs and stakeholders are required to register for the project at: https://eccenvironmental.com/projects/

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REPUBLIC OF NAMIBIA
MINISTRY OF WORKS AND TRANSPORT

MINISTRY OF WORKS AND TRANSPORT WILL HOLD A PUBLIC AUCTION

GOVERNMENT AUCTION – DAY 4

OSHAKATI – VEHICLES AUCTION

VIEWING DATE: WEDNESDAY 18 NOVEMBER 2020 from 09H00 to 16H00
AUCTION DATE: THURSDAY 19 NOVEMBER 2020 AT 10H00
VENUE: : MINISTRY OF HOME AFFAIRS, IMMIGRATION, SAFETY AND SECURITY – OSHAKATI POLICE STATION AND HOSPITAL

Items to be sold
3X TOYOTA 2.0, 8X TOYOTA HILUX 2.5 4X4, FORD IKON 1.6, 6X TOYOTA HILUX 2.7, 5X ISUZU 240 LDV, NISSAN NP 300 4X4, TOYOTA COROLLA 1.8, 2X HINI TRUCK 4X4, 2X M BENZ TRUCKS 4X4AND MUCH MORE.....

Registration: N$ 500.00 (CASH ONLY)
Terms and Conditions apply, No VAT Details are subject to change without prior notice
ALL PAYMENTS MUST BE MADE BY 15H00 HOURS ON A UCTION DATE

Contact: MR J NAMPWEYA 081 289 6545 /
E STEENKAMP 081 249 2338 / 061 208 6144

GOVERNMENT AUCTION – DAY 5

OSHAKATI – LOOSE ITEMS AUCTION

VIEWING DATE: MONDAY 23 NOVEMBER 2020 from 09H00 to 16H00
AUCTION DATE: TUESDAY 24 NOVEMBER 2020 AT 10H00
VENUE: MINISTRY OF FINANCE – OSHAKATI CUSTOMS, AGRICULTURE, WORKS

Items to be sold
BALE CLOTHING, SPACTULAS, CUPS, SANDALS, PLASTIC BOWLS, PLATES, WOODEN CUP, CU-CAR BEER AND MUCH MORE.....

Registration: N$ 5000.00 (CASH ONLY)
Terms and Conditions apply, No VAT Details are subject to change without prior notice
ALL PAYMENTS MUST BE MADE BY 15H00 HOURS ON A UCTION DATE

Contact: MR J NAMPWEYA 081 289 6545,
E STEENKAMP 081 249 2338 / 061 208 6144

GOVERNMENT AUCTION – DAY 6

OSHAKATI – VEHICLES AUCTION

VIEWING DATE: THURSDAY 26 NOVEMBER 2020 from 09H00 to 16H00
AUCTION DATE: FRIDAY 27 NOVEMBER 2020 AT 10H00
VENUE: MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM – ONGWEDIVA DVC

Items to be sold
2X MAZDA BT-50, 4X NISSAN, 4X FORD RANGER, TOYOTA 2.7, 2X FORD COURIER, 3X M/BENZ 1113, 2X HINO TRUCK, GARDEN TOOLS AND MUCH MORE.....

Registration: N$ 5000.00 (CASH ONLY)
Terms and Conditions apply, No VAT Details are subject to change without prior notice
ALL PAYMENTS MUST BE MADE BY 15H00 HOURS ON A UCTION DATE

Contact: : MR J NAMPWEYA 081 289 6545
E STEENKAMP 081 249 2338 / 061 208 6144

SAFE ROADS TO PROSPERITY

EXPRESSION OF INTEREST

EMERGING CONTRACTOR COURSE IN LABOUR-BASED ROAD CONSTRUCTION

In line with the Roads Authority's SME development policy in promoting SMEs in the sector, the RA through the Roads Technical Training Unit (RTTU) intends to offer the EMERGING CONTRACTOR COURSE to experienced Namibian SME Contractors with the aim of advancing SME Contractors to the level of self-supporting Emerging Contractors.

The Emerging Contractor Course will take place over two weeks focusing on contractual issues and the detailed pricing of the all-inclusive costs in the field of concrete works, labour-based construction work and plant-based construction work.

Course Fee: N$ 2,500.00 for the two-week course, including instructional material

Number of participants per session is limited.

For details on the Emerging Contractor Course please contact: R Ochs +264 61 2847031 or +264 81 122 8144
Interested entities/individuals kindly forward your company profile, clearly listing successfully completed construction projects, to: rittmannz@ra.org.na

SME TRAINING – LABOUR-BASED ACTIVITIES

In line with the Roads Authority's SME development policy in promoting SMEs in the sector, the RA through the Roads Technical Training Unit (RTTU) intends to offer SME TRAINING COURSES to Namibian SME Contractors.

The SME Course will take place over one week focusing on contractual issues and the detailed pricing of the all-inclusive costs in the field of concrete and labour-based construction work.

Course Fee: N$ 1,000.00

Number of participants per session is limited.

For details on the possible training courses please contact: R Ochs +264 61 2847031 or +264 81 122 8144
Interested entities/individuals kindly forward your company profile, clearly listing successfully completed construction projects (if any), to: rittmannz@ra.org.na

Roads Authority, Private Bag 12030, Ausspannplatz, Windhoek, Namibia, www.ra.org.na


ECC

APPENDIX D: ECC CVS

APPENDIX E: VERTEBRATE FAUNA AND FLORA SPECIALIST STUDY

APPENDIX F: HERITAGE SPECIALIST STUDY

APPENDIX G: PROPOSAL FROM ENVIROX