



FINAL DRAFT

***ENVIRONMENTAL IMPACT ASSESSMENT FOR THE
CREATION OF A NEW FREE ZONE IN THE NORTHERN
COMMUNAL AREAS***

November 2021

App - 001162

<p>Project Name:</p>	<p>ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CREATION OF A NEW FREE ZONE IN THE NORTHERN COMMUNAL AREAS</p>
<p>The Proponent:</p>	<div data-bbox="906 470 1133 695" data-label="Image"> </div> <p>Ministry of Agriculture, Water and Land Reform (MAWLR) Private Bag 13184 WINDHOEK</p>
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<p>Release Date:</p>	<p>November 2021</p>
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EXECUTIVE SUMMARY

Green Earth Environmental Consultants were appointed by the proponent, the Ministry of Agriculture, Water and Land Reform (MAWLR), to conduct an environmental impact assessment for the creation of a new Free Zone in the Northern Communal Areas. In accordance with the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007), the activities listed below, which forms part of the proposed operations, may not be undertaken without an Environmental Clearance:

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

1. *The construction of facilities for -*
 - (a) *the generation of electricity.*
 - (b) *the transmission and supply of electricity.*

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- 2.1 *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- 2.3 *The import, processing, use and recycling, temporary storage, transit or export of waste.*

FORESTRY ACTIVITIES

4. *The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act (No. 12 of 2001) or any other law.*

LAND USE AND DEVELOPMENT ACTIVITIES

- 5.3 *Construction of veterinary protected area or game proof and international boundary fences.*

WATER RESOURCE DEVELOPMENTS

- 8.1 *The abstraction of ground or surface water for industrial or commercial purposes.*
- 8.2 *The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.*
- 8.6 *Construction of industrial and domestic wastewater treatment plants and related pipeline systems.*

INFRASTRUCTURE

- 10.1 *The construction of public roads.*

The key characteristics/environmental impacts of the proposed project are as follows:

Positive impacts	Negative impacts
New markets will be created for the farmers in the area.	The construction of fences divides people and communities. The free

	movement of people will be restricted to dedicated gates and roads.
The farmers included in the new free zone will obtain better prices for their cattle. This will have a positive economic impact on the communities of the NCA.	Affected communities/people will have to travel longer distances at higher costs as only dedicated gates may be used for moving to and from the compartment.
The existing export meat processing plants will be used more efficiently as more animals will be slaughtered.	Stock theft may increase during construction of the fence. The construction team might also cause veld fires.
With proper support and training from the MAWLR and other institutions, efficiencies of farming in this area will improve as higher prices will stimulate the introduction of better farming practices as well as new breeding material.	The farmers included in the new free zone will expect quick results. In practice getting the new compartment to OIE standard will take time. If positive economic results for farmers included in the new free zone takes too long to materialise farmers will lose faith in the project.
The country will earn more foreign currency due to the export of more meat.	Vegetation will be lost to clear the area for the construction and maintenance of the fence as well as the infrastructure at the gates.
Saving to the MAWLR on preventative as well as responsive application of animal health care as the areas included in the new free zone will be protected from the influx of infected animals and due to farmers taking responsibility for the health of their own animals.	The new fence will prevent wild animals from following their normal migration routes. This especially apply to elephants which will be fenced in into the new zone.
Temporary employment will be created in the construction of the fence, the gates and other supporting infrastructure. Permanent employment will be created for people required to monitor and control the new gates and patrol and repair the fence.	Dust and noise will be generated during construction of the fence, the gates and supporting infrastructure.
	Farmers will have no further access to grazing to the north of the proposed new compartment boundary and will have to survive on the grazing available to them in the new free zone.

A strip of at least 20m wide must be cleared for the alignment and construction of the proposed new Veterinary Cordon Fence. Certain areas along the proposed alignment of the fence are in various stages of being cleared of vegetation, levelled, and build up as it is used for farming and residential purposes. These areas are in a transformed state from an ecological perspective and human interference is visible as it is currently being used

for stock and crop farming. Other areas are relatively unaffected by human and animal interference which means that the alignment and construction of the fence in these areas will have a more serious effect on the bio-physical environment. It is however believed that the overall cumulative impact on the biophysical environment will be low and there will be a significant positive impact on the socio-economic environment.

Negative impacts derived from the project are mainly associated with restriction of movement and dividing of communities by the fence, in the construction phase for instance an increase in traffic, dust and noise and loss of plant life and relocation of structures in the way of the proposed fence route. Other negative impacts associated with the proposed construction and operations are the impact on the vegetation, the natural surface drainage systems, the transmission of diseases from people or to people involved in operations and the loss of land. Mitigation measures will be provided that can control the extent, intensity, and frequency of these named impacts in order not to have substantial negative effects or results.

The type of activities that will be carried out on the site does not negatively affect the amenity of the locality and the activities do not adversely affect the environmental quality of the area. None of the potential impacts identified are regarded as having a significant impact to the extent that the proposed project should not be allowed. However, the operational activities further on need to be controlled and monitored by the assigned managers and the proponent.

The Environmental Impact Assessment which follows upon this paragraph was conducted in accordance with the guidelines and stipulations of the Environmental Management Act (No 7 of 2007) meaning that all possible impacts have been considered and the details are presented in the report.

Based upon the conclusions and recommendations of the Environmental Impact Assessment Report and Environmental Management Plan, the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism is herewith requested to:

1. Accept and approve the Environmental Impact Assessment;
2. Issue an Environmental Clearance for the new veterinary protected area (free zone) and fence and for the following listed activities:

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

1. *The construction of facilities for -*
 - (a) *the generation of electricity.*
 - (b) *the transmission and supply of electricity.*

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- 2.1 *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
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4. *The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act (No. 12 of 2001) or any other law.*

LAND USE AND DEVELOPMENT ACTIVITIES

5.3 *Construction of veterinary protected area or game proof and international boundary fences.*

WATER RESOURCE DEVELOPMENTS

8.1 *The abstraction of ground or surface water for industrial or commercial purposes.*

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8.6 *Construction of industrial and domestic wastewater treatment plants and related pipeline systems.*

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10.1 *The construction of public roads.*

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LIST OF ABBREVIATIONS

CBPP	Contagious Bovine Pleuropneumonia
DVS	Department of Veterinary Services
EC	Environmental Clearance
ECO	Environment Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
FMD	Foot and Mouth Disease
HACCIADEP	Harambee Comprehensively Coordinated and Integrated Agricultural Development Program
I&APs	Interested and Affected Parties
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
NCA	Northern Communal Areas
OIE	World Organisation for Animal Health
TADs	Transboundary Animal Diseases
VCF	Veterinary Cordon Fence

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- **Attendance Register: Nkurenkuru**
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1. INTRODUCTION

Green Earth Environmental Consultants were appointed by the proponent, the Ministry of Agriculture, Water and Land Reform (MAWLR), to conduct an environmental impact assessment for the creation of a new Free Zone in the Northern Communal Areas. In this context a Free Zone is an area/zone where the absence of the disease/s under consideration (Namibia's situation: Foot and Mouth Disease (FMD) and Contagious Bovine Pleuropneumonia (CBPP)) has been demonstrated in accordance with the requirements prescribed in the international standards (World Organisation for Animal Health).

In accordance with the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007), the activities listed below, which forms part of the proposed operations, may not be undertaken without an Environmental Clearance:

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- 8.6 *Construction of industrial and domestic wastewater treatment plants and related pipeline systems.*

INFRASTRUCTURE

- 10.1 *The construction of public roads.*

See below a copy of the appointment letter from the MAWLR:

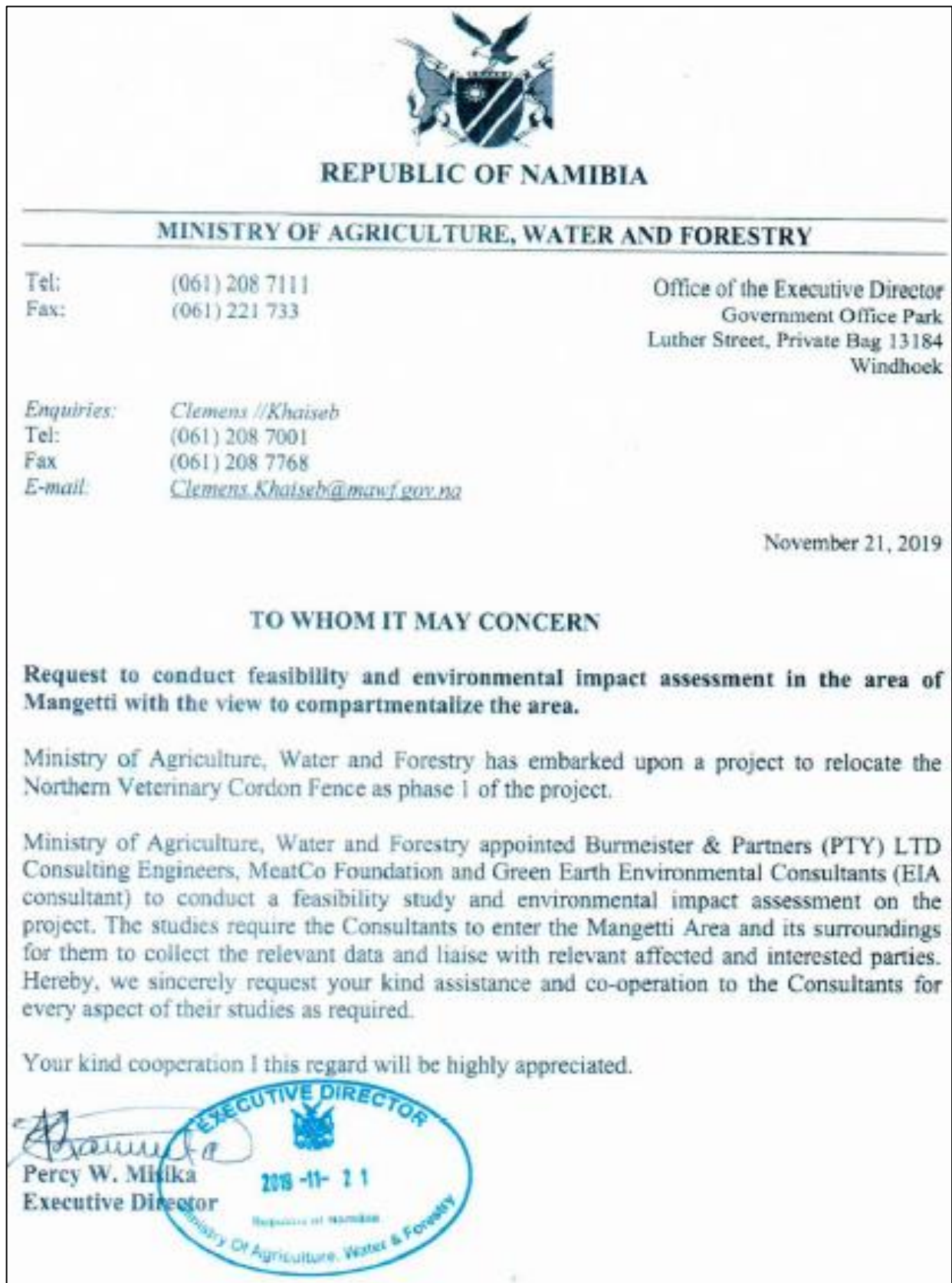


Figure 1: Letter from the MAWLR

The natural environment/vegetation on the project site has been affected as this area is used for commercial and subsistence farming activities, residential purposes, wood harvesting for commercial and human use purposes and other activities. The proposed site has limited infrastructure and services like roads, water services, sewage systems, communication infrastructure and electricity. The following Environmental Impact Assessment contains information on the project and the surrounding areas and activities.

2. TERMS OF REFERENCE

The proponent (Ministry of Agriculture, Water and Land Reform (MAWLR)) based on the interaction, consultation and inputs of local authorities, farmers associations and farmers, the technical advice and knowledge of the relevant Ministerial Departments, the Meat Board and the Animal Health Committee of the Meat Board identified areas in the Northern Communal Area (NCA) to be added to the existing disease-free areas under the control of the Department of Veterinary Services (DVS). These areas are regarded as low risk areas in terms of Foot and Mouth Disease (FMD) and Contagious Bovine Pleuropneumonia (CBPP), however the areas are not declared as disease-free. These areas will be added to the current Disease-Free Area to the south of the existing Veterinary Cordon Fence by the introduction of a new Free Zone.

The areas identified to be included should, where possible, include demarcated farms (surveyed with registered lease agreements) in the NCA. These demarcated farms are in the Kavango East, Kavango West, Mangetti, Oshikoto and Ohangwena Regions. The reason for inclusion of these farms is because it is already farmed on a 'commercial' basis by the lessees and are fenced in and mainly excludes subsistence crop and livestock farmers as well as communities relying on woodcraft and tourism trade.

It is intended to create the new Free Zone in a phased approach by fencing it in by a veterinary cordon fence to a locality to the north of the current free zone area. This will result in a phased development which will allow livestock containment, testing and isolation to comply with the requirements prescribed in the international standards (World Organisation for Animal Health).

To be able to implement the project, an Environmental Impact Assessment and Environmental Clearance is required. For this environmental impact exercise, Green Earth Environmental Consultants followed the terms of reference as stipulated under the Environmental Management Act.

The aim of the environmental impact assessment is:

- To comply with Namibia's Environmental Management Act (2007) and its regulations (2012);
- To ascertain existing environmental conditions on the site to determine its environmental sensitivity;
- To inform I&APs and relevant authorities of the details of the proposed activities and to provide them with an opportunity to raise issues and concerns;
- To assess the significance of issues and concerns raised;

- To compile a report detailing all identified issues and possible impacts, stipulating the way forward and identify specialist investigations required;
- To outline management guidelines in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.

The tasks that were undertaken for the Environmental Impact Assessment included the evaluation of the following: climate, water (hydrology), vegetation, geology, soils, social, cultural heritage, groundwater, sedimentation, erosion, biodiversity, sense of place, socio-economic environment, health, safety and traffic.

The EIA and EMP from the assessment will be submitted to the Environmental Commissioner for consideration. An Environmental Clearance will only be obtained (from the DEA) once the EIA and EMP has been examined and approved for the listed activities.

The public consultation process as per the guidelines of the Act has been followed. The methods that were used to assess the environmental issues and alternatives included the collection of data on the project site and area from the proponent and identified stakeholders. All other permits, licenses or certificates that are further on required for the operation of the proposed project still needs to be applied for by the proponent.

3. NEED AND DESIRABILITY

Based on submissions during the Second Land Conference (1st - 5th October 2018) by community leaders, the local authorities, farmers associations and farmers, the MAWLR identified areas in the Northern Communal Area (NCA) to be added to the existing disease-free areas under the control of the Department of Veterinary Services (DVS). These areas are regarded as low risk areas in terms of Foot and Mouth Disease (FMD) and Contagious Bovine Pleuropneumonia (CBPP), however are not declared as disease-free as the areas are situated in the FMD protection zone. The identified areas in the Mangetti area includes: Karikubis in Kavango East Region, Mangetti East farms in Kavango West Region, Mangetti West and Onalusheshete farms in Oshikoto Regions, Ombuga area in Oshana Region, Omutambo Maowe area in Omusati Region and Sesfontein area in Kunene. The MAWLR intends to establish disease-free compartments, in a phased program, in these areas to facilitate safe marketing of animals, and for the purpose of in-cooperating those areas in the FMD free compartments once the standards required for a free zone are met.

The abovementioned low-risk areas are shown in the figure below:

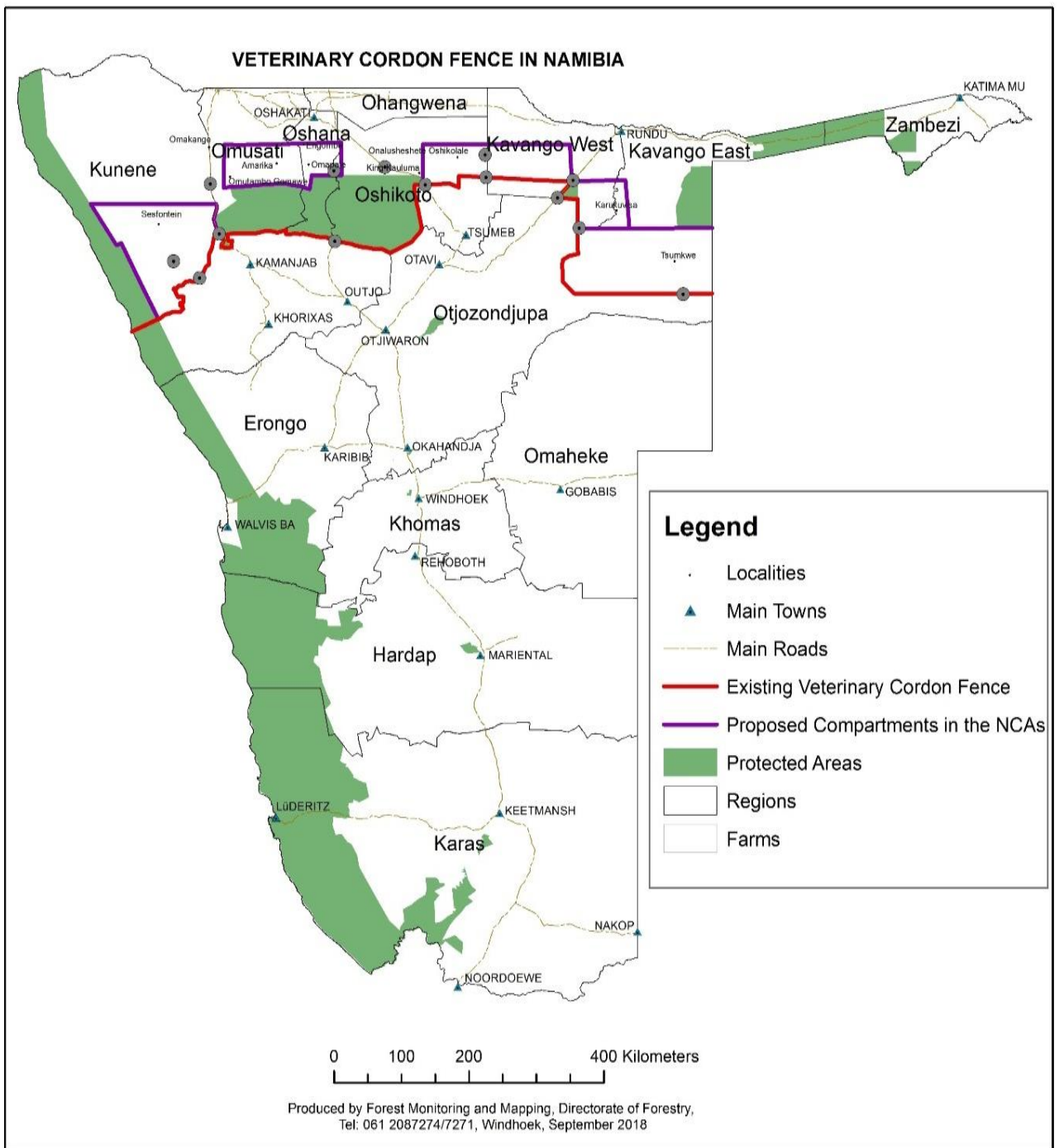


Figure 2: Low Risk areas and existing veterinary cordon Fence (MAWLR, 2019)

- To implement and monitor food safety standards, in recognition of the close link between food production and human health;
- To improve and maintain optimal animal health status in Namibia;
- To empower small and medium scale producers and agri-processors (meat processors) to access local and regional markets.

Agricultural production in the NCAs is challenged by several factors such as low and variable rainfall which limits most of the agricultural activities. In addition, animal diseases, CBPP and FMD, contributes negatively to livestock marketing. This is further compounded by the challenge of low livestock off-take resulting in high animal densities and degradation of rangelands. Considering the current market access limitations, there is a need for the Government to ensure that small and medium scale agriculture producers and agri-processors are capacitated and have access to fair and sustainable local, regional and, in the medium-term, international markets.

NCAs' livestock production is mainly sold in the local market and, in smaller quantity, to other neighbouring African countries such as Angola and Zimbabwe. However, more than half of the meat locally consumed in the formal market needs to be supplied from outside the NCAs. In fact, only 12% of the total NCAs' cattle population is sold or consumed (the so-called off-take) compared to 25-30% in the commercial areas. While cattle farmers are unable or reluctant to sell their animals, the economic potential of the sector in the NCAs, even in terms of satisfying the local demand, remains largely unexploited.

The low off-take is mainly caused by market inefficiencies, which will constitute one of the program's priority areas of intervention. From the demand side, the beef industry is mainly export oriented and requires a regular supply of high-quality grade (A and AB) for lucrative markets. However, from the supply side, all NCA animals are produced in Foot & Mouth Disease areas and are virtually excluded from the export market and significantly disadvantaged in accessing the domestic market south of the Veterinary Cordon Fence (VCF). In addition, more than 75% of animals delivered to the local abattoirs are of lower quality (C grade), resulting in low prices paid to farmers and inefficiencies in the processing industry.

A significant production loss is associated with inadequate rangeland management and animal husbandry, resulting in overstocking, land degradation, poor animal fertility and small frame size. Inbreeding of cattle coupled with insufficient research on improved breeding material and livestock husbandry practices is significantly contributing to the low quality of animals. The body conformation or frame of livestock affects the grading of its meat. By contrast, most livestock produced in the FMD-free zone, which is predominantly composed of commercial producers, are of breeds which exhibit large frames when compared to those produced in the NCAs. Meat produced in NCAs is therefore usually graded lower when compared to that from livestock in areas south of the VCF due to the quality of the animals as well as a nonideal feeding regime. Eventually, the challenges lead to the marketing of undesirable animals and therefore farmers in the NCAs do not achieve good returns from their animals.

As farmers in the NCAs are reluctant to sell their animals, the number of cattle in the NCAs is growing, with increasing negative effects on the already stressed rangeland's stocking capacity. Overstocking and overgrazing, associated with widespread soil degradation and

bush encroachment, have become a common phenomenon, affecting more than 45% of the land. Furthermore, due to the land tenure system in the NCAs, the responsible authorities (traditional leaders, Land Boards, Local Authorities, etc.) are often unable to regulate the use of rangeland in common areas.

If farmers' awareness on sustainable animal husbandry practices is not adequately promoted, together with a more effective governance of natural resources, the negative environmental impacts would progressively affect the productivity of the entire livestock sector. In the long term, this could also have an impact on the social cohesion and overall political stability, as it would support the perception that livestock farmers in the north of the country are still disadvantaged, when compared to well-off farmer communities in the south.

Due to uncontrolled cattle movement, there is a constant risk of importing animal diseases from infected areas, as it happened in the FMD outbreak of July 2015, probably caused by cattle contracting the virus after grazing in neighbouring countries. This caused additional restrictions to the movement and trade of livestock throughout the NCAs, with additional dampening effects on the value chain. Marketing of livestock and livestock products in the NCA continues to be hampered by the presence of Transboundary Animal Diseases (TADs), like FMD, CBPP and others.

To enhance the management of disease control and eradication strategies in the Northern Communal Areas, livestock movement across the borders with Angola needs to be closely monitored. In terms of the protocol on cross border livestock movements agreed upon with the Angolan Veterinary Authorities, it must include inspection, vaccination and quarantine of livestock crossing the border to allow for disease detection and to prevent diseases being spread.

To unlock and develop the cattle industry of the NCAs, it is thus necessary to create a new compartment or free zone north of the existing VCF to enable livestock containment, testing and isolation.

The Ministry of Agriculture, Water, and Land Reform (MAWLR) appointed Burmeister & Partners who with the assistance of the Meatco Foundation prepared a feasibility study for the new free zone in the Northern Communal Areas. This feasibility study concluded that the investment to create the new FMD free zone is feasible and economically viable.

It is determined that there is a need for the proposed project and that it is desirable to be implemented.

4. APPROACH TO THE STUDY

The assessment included the following activities:

a) Desktop sensitivity assessment

Literature, legislation, and guidance documents related to the natural environment and land use activities available on the area in general were reviewed in order to determine potential environmental issues and concerns.

b) Site assessment (site visit)

The proposed project site and the immediate area and surrounding area were assessed through several site visits to investigate the environmental parameters on site to enable further understanding of the potential impacts on site. Various site visits took place between December 2019 to November 2020.

c) Public participation

Public notices, informing the general public of the proposed project and inviting Interested and Affected Parties to provide comments on the proposed activities, appeared in the New Era and the Namibian of 5 and 12 December 2019. See copies attached. See comments that were received in respect of these notices in the Appendix.

Notices were also displayed on site and on the Notice Boards in the area. The people were also informed over the local radio of the proposed project and meetings. See attached a copy of the radio notice.

The following Interested and Affected Parties (I&APs) have been identified and were included in the Public Participation:

- Meatco Foundation
- Namibian National Farmers Union
- Namibian Farmers Union
- Kavango West Regional Farmers Union
- Kavango East Farmers Union
- Mangetti Farmers Association
- Division of Veterinary Services
- Ministry of Agriculture, Water and Land Reform
- Meatco
- Meat Board of Namibia
- Ministry of Environment, Forestry and Tourism
- Ministry of Lands and Resettlement
- Roads Authority
- Namibia Industrial Development Agency
- NamPower
- Kavango West Traditional Authority
- Kavango Regional Council
- Kavango East Regional Council
- Ondonga Traditional Authority
- Oukwanyama Traditional Authority

- Oshikoto Farmers Union
- Griciriku Traditional Authority
- Shambyu Traditional Authority
- Mbunza Traditional Authority
- Nyae Nyae Conservancy
- Na Jaqna Conservancy
- Farmers in the Project Area
- Community Members
- Members of the General Public who registered as I&APs

See Appendix for Public Meetings that were held with the Attendance Registers. See also the info of the people who listed as I&APs to whom BIDs were send.



Figure 4: Meeting with Oshikoto King and his Traditional Authority members



Figure 5: Meeting with Oshikoto Region general stakeholders



Figure 6: Meeting with Ohangwena Queen and her Traditional Authority members



Figure 7: Meeting with Kavango West Region general stakeholders



Figure 8: Meeting with Kavango East Region general stakeholders



Figure 9: Participants during the community meeting at Katjinakatji village



Figure 10: Meeting with community members in Oshikoto Region



Figure 11: Meeting with Ohangwena Region general stakeholders



Figure 12: Photo of one of the public meetings

d) Scoping

Based on the desk top study, site visit and public participation, the environmental impacts were determined in five categories: nature of project, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity. The findings of the scoping have been incorporated in the environmental impact assessment report below.

5. PROJECT DESCRIPTION

The MAWLR has now embarked upon a program to include areas of the NCA in a phased development which will allow livestock containment, testing and isolation. It is intended to create a new Compartment or Free Zone in a phased approach be fenced in by a veterinary cordon fence to a locality to the north of the current free zone area. The proposed Compartment or Free Zone to be fenced in will have no impact on the integrity and locality of the existing free zone area. The existing VCF will remain in place and maintained to ensure that the existing disease-free area remains protected and disease free as per OIE requirements.

Due to cost considerations and availability of funds as well as human resources required for the implementation and management, the project will be implemented in phases. During the First Phase, portions of the Mangetti East Farms located in Kavango East and West Region, Kavango West and Mangetti West, demarcated farms in the Ohangwena

Region and the Onalusheshete Farms in Oshikoto Region will be included. By fencing in new areas with a veterinary cordon fence, disease-free compartments in these areas will be established to facilitate safe marketing of animals.

The timeline of the implementation of the phases is thus far unknown and it is still uncertain when the other phases of the project will commence. The commencement of further phases depends on the availability of funds, supporting resources as well as the successful implementation of Phase One.

5.1. OPTIONS/ALTERNATIVES CONSIDERED

In considering the various alternatives of creating a disease-free area, being a new compartment or free zone, the Proponent should follow the guidelines of the World Health Organization (OIE - *Terrestrial Animal Health Code*). The section below is an extract from the OIE - *Terrestrial Animal Health Code* which forms the basis in the way forward in the creation of the disease-free area.

Zone or Compartment

The creation of new disease-free areas in a Country is guided by the *OIE - Terrestrial Animal Health Code of the World Health Organization*. In Chapter 4.4 (Article 4.4.1.) member countries of the *World Health Organization* (such as Namibia) subscribing to the Terrestrial Code are advised to follow the recommendations on the principles of zoning or compartmentalization as per the Terrestrial Code to establish and maintain different subpopulations with specific health status within their territory (*OIE - Terrestrial Animal Health Code, 2019*). These principles should be applied in accordance with the relevant chapters of the Terrestrial Code. These chapters also outline a process by which trading partners may recognize such subpopulations as it is as important as to create and maintain a disease-free zone or compartment as to adhere to the requirements of trading partners.

Establishing and maintaining a disease-free status throughout the country should be the final goal for Member Countries. However, given the difficulty of achieving this goal, there may be benefits to a Member Country in establishing and maintaining a subpopulation with a specific health status within its territory for the purposes of international trade or disease prevention or control. Subpopulations may be separated by natural or artificial geographical barriers or by the application of appropriate biosecurity management.

While zoning (the creation of a free zone) applies to an animal subpopulation defined primarily on a geographical basis (as is the case with the current area south of the VCF), compartmentalization applies to an animal subpopulation defined primarily by management and husbandry practices related to biosecurity.

In practice, spatial considerations, and appropriate management, including biosecurity plans, play important roles in the application of both concepts. Zoning may encourage the more efficient use of resources within certain parts of a country. Compartmentalization may allow the functional separation of a subpopulation from other domestic or wild animals through biosecurity, which would not be achieved through geographical separation. In a country where a disease is endemic, establishment of free zones may assist in the progressive control and eradication of the disease. To facilitate disease control and the

continuation of trade following a disease outbreak in a previously free country or zone, zoning may allow a Member Country to limit the extension of the disease to a defined restricted area, while preserving the status of the remaining territory. For the same reasons, the use of compartmentalization may allow a Member Country to take advantage of epidemiological links among subpopulations or common practices relating to biosecurity, despite diverse geographical locations.

A Member Country may thus have more than one zone or compartment within its territory.

General considerations

The *OIE - Terrestrial Animal Health Code* (Article 4.4.2.) observe the following general considerations in establishing the new zone or compartment in a Country:

- a) The Veterinary Services of a Member Country that is establishing a zone or compartment within its territory should clearly define the subpopulation in accordance with the recommendations in the relevant chapters of the Terrestrial Code, including those on surveillance, on animal identification and animal traceability and on official control programs.
- b) The procedures used to establish and maintain the specific animal health status of a zone or compartment depend on the epidemiology of the disease, including the presence and role of vectors and susceptible wildlife and environmental factors, on the animal production systems as well as on the application of biosecurity and sanitary measures, including movement control.
- c) Biosecurity and surveillance are essential components of zoning and compartmentalisation and should be developed through active cooperation between industry and Veterinary Services.
- d) The Veterinary Services, including laboratories, should be established and should operate in accordance with Chapters 3.1. and 3.2. of the Code, to provide confidence in the integrity of the zone or compartment. The final authority over the zone or compartment, for the purposes of domestic and international trade, lies with the Veterinary Authority. The Veterinary Authority should assess the resources needed and available to establish and maintain a zone or compartment. These include the human and financial resources and the technical capability of the Veterinary Services and of the relevant industry and production system (especially in the case of a compartment), including for surveillance, diagnosis and, when appropriate, vaccination, treatment and protection against vectors.
- e) In the context of maintaining the animal health status of a population or subpopulation of a country, zone or compartment, importations into the country as well as movements of animals and their products, and fomites, into the zones or compartments should be the subject of appropriate sanitary measures and biosecurity.
- f) The Veterinary Services should provide movement certification, when necessary, and carry out documented periodic inspections of facilities, biosecurity, records and surveillance procedures. Veterinary Services should conduct or audit surveillance, reporting, laboratory diagnostic examinations and, when relevant, vaccination.
- g) The production sector's responsibilities include, in consultation with the Veterinary Services if appropriate, the application of biosecurity, documenting and recording

movements of commodities and personnel, managing quality assurance schemes, documenting the implementation of corrective actions, conducting surveillance, rapid reporting and maintenance of records in a readily accessible form.

Principles for defining and establishing a zone or compartment

The following principles (Article 4.4.3.) apply when Member Countries define a zone or a compartment:

- 1) The extent of a zone and its geographical limits should be established by the Veterinary Authority based on natural, artificial or legal boundaries, and made public through official channels.
- 2) The factors defining a compartment should be established by the Veterinary Authority based on relevant criteria such as management and husbandry practices related to biosecurity and communicated to the relevant operators through official channels.
- 3) Animals and herds or flocks belonging to subpopulations of zones or compartments should be recognisable as such through a clear epidemiological separation from other animals and all factors presenting a risk. The measures taken to ensure the identification of the subpopulation and to establish and maintain its health status through a biosecurity plan should be documented in detail. These measures should be appropriate to the particular circumstances, and depend on the epidemiology of the disease, environmental factors, the health status of animals in adjacent areas, applicable biosecurity (including movement controls, use of natural, artificial or legal boundaries, spatial separation of animals, control of fomites, and commercial management and husbandry practices), and surveillance.
- 4) Relevant commodities within the zone or compartment should be identified in such a way that their movements are traceable. Depending on the system of production, identification may be done at the herd or flock or individual animal level. Relevant movements of commodities into and out of the zone or compartment should be well documented and controlled. The existence of an animal identification system is a prerequisite to assess the integrity of the zone or compartment.
- 5) For a compartment, the biosecurity plan should describe the partnership between the relevant industry and the Veterinary Authority, and their respective responsibilities. It should also describe the standard operating procedures to provide clear evidence that the surveillance conducted, the animal identification and traceability system, and the management and husbandry practices are adequate to meet the definition of the compartment. In addition to information on controls of movements of relevant commodities, the plan should include herd or flock production records, feed, water and bedding sources, surveillance results, birth and death records, visitor logbook, morbidity and mortality history and investigations, medications, vaccinations, documentation of training of relevant personnel and any other criteria necessary for evaluation of risk management. The information required may vary in accordance with the species and diseases under consideration. The biosecurity plan should also describe how the measures will be audited to ensure that the risks are being managed and regularly reassessed, and the measures adjusted accordingly.

For the creation of the new FMD and CBPP free area in the NCA area, the following options/alternatives were considered:

- The creation of a new disease-free compartment;
- The creation of a 'new' disease-free zone;
- The no-go option.

The creation of a disease-free compartment

A compartment is a disease-free area created by enclosing an area with a veterinarian cordon fence. Access to the area is further controlled by the responsible organ of state. Movement of people and animals to and from the compartment is only allowed via controlled gates. The animals enclosed in the area is then inspected, monitored to detect diseases to be treated (vaccinated) and to be cleared from FMD and CBPP over a period until the OIE requirements are met and the compartment is certified disease-free for the marketing of animals as per OIE requirements. Once this is achieved, the compartment has a disease-free status which allows the marketing of animals and products to markets subject to the OIE standards.

The creation of a 'new' disease-free zone

The creation of a 'new' disease-free zone is an option where a disease-free area is created by fencing in an animal subpopulation defined primarily on a geographical basis (NCA) which is neighbouring a disease-free area. The area to become the free zone is initially fenced in with a veterinarian cordon fence as a compartment. This new area then becomes a surveillance area. Access to the area is further controlled by the responsible organ of state. Moving of people and animals to and from the compartment is only allowed via controlled gates. The animals enclosed in the new area is inspected, monitored to detect diseases and then treated (vaccinated) and to be cleared from FMD and CBPP over a period of time until the OIE requirements are met and the compartment is certified disease-free for the marketing of animals as per OIE requirements. The veterinary cordon fence separating the new free zone from the existing disease-free area may be removed once the organ of state is content that the area is disease-free as per the OIE requirements. Once this is achieved, the compartment has a disease-free status which allows the marketing of animals and products to markets subject to the OIE standards. The fence may also be retained to be used to create buffer zones once there is a breakout of FMD or CBPP in the new zone or outside the zone.

The no-go option

Under the no-go option, no new disease-free zone is created. The area thus remains an FMD area and animals may only be marketed out of the area under the OIE Protocols. The World Organisation for Animal Health (OIE) provides standards for the non-geographical approach to FMD, in other words, providing standards for trade in beef from areas not free from FMD.

Three options exist for trade in beef from areas not free from FMD:

1. Management of FMD along individual value chains to enable marketing of FMD virus free products;
2. Processing of beef to inactivate any FMD virus that may be present;
3. Compartmentalization involving integrated biosecurity measures (through quarantining, inspection and vaccination);

The abovementioned standards are contained in Article 8.8.22, Article 8.8.31 and Article 8.8.4 of the Terrestrial Animal Health Code, respectively.

After studying the OIE - Terrestrial Animal Health Code, risks, advantages and disadvantages associated with the above options/alternatives, consultation with the Department of Veterinary Services of the MAWLR, affected farmers in the NCA, the Meat Board and the Health Committee of the Meat Board, Green Earth Environmental Consultants are of the opinion that the creation of a new zone is the best option for creating a new disease-free zone in the NCA. This option is also in line with the Terms of Reference of the Proponent. It is proposed that a phased approach (though the introduction of 'compartments') should be followed for creating the new free zone.

6. PROPOSED NEW FREE ZONE IN THE NCA

The key issues considered by the Proponent for the creation of a new disease-free area in the NCA is based on the following principles:

- The protection of the existing disease-free area. The new zone to be created must not endanger or negatively impact on the existing disease-free area south of the existing VCF and the agreements with existing trading partners.
- The new free zone must be created by following the recommendations on the principles of zoning or compartmentalization as per the OIE - *Terrestrial Animal Health Code* of the World Health Organization.

Based on these principles, the Proponent proposed two options for the phased creation of a new disease-free area in the NCA.

6.1. OPTION A – THE CREATION OF COMPARTMENTS

Under Option A, the Proponent intends to introduce a compartment including the demarcated farms in the Mangetti Area and immediate surroundings. The first round of direct consultations took place during November and December 2019 when the Option was investigated through field surveys, engagement with community leaders and I&APs, MAWLR officials as well as the DVS. See *Table* below for I&APs consulted on Option A:

Traditional Authority/ Community/Farmers Union:	Meeting Town/Village:	Venue:	Date:	Time:
Kavango West Traditional Authority	Nkurenkuru (Kavango West Region)	Office of the TA	16 December 2019 (Monday)	9h00
Kavango West Regional Farmers Union	Nkurenkuru (Kavango West Region)	Nkurenkuru Town Council Community Hall	16 December 2019 (Monday)	11:00
Kavango East Farmers Union	Rundu	Kavango Regional Council Auditorium	16 December 2019 (Monday)	18h00
Ou Cordon (Woma and Mpenzo Village Communities to be invited), Mpora, Katjinakatji	Katjinakatji Village	Katjinakatji Headmen Tree or Community Hall	17 December 2019 (Tuesday)	9:00
Satotwa Communities	Satotwa village	Satotwa School or Tree or Constituency Hall	17 December 2019 (Tuesday)	14h30
Ondonga Traditional Authority	Ondangwa	Office of the TA	18 December 2019 (Wednesday)	14h00
Mangetti Farmers Association and Oshikoto Community	Omuthiya	Okashana Rural Development Centre Conference Hall	18 December 2019 (Wednesday)	18h00
Antoni Community	Antoni Village	Antoni Village Community Tree	19 December 2019 (Thursday)	9h00
Ollavi Community	Ollavi Village	Ollavi Village Community Tree	19 December 2019 (Thursday)	14h30

From these investigations, two options were proposed for the alignment of the proposed compartment's veterinary cordon fence. See below *Options 1 and 2*:

The options were discussed with the I&APs and from the discussions, the alignment of the proposed boundary for the creation of the compartment for Option A, Phase One (1) was agreed upon.

The following criteria were considered in deciding where the proposed new position of the fence will be:

- The requirements and standards of the World Organisation for Animal Health (OIE) to ensure that an area is free from CBPP and FMD;
- The inclusion (into the compartment) of existing demarcated farms which are being farmed 'commercially' under long term lease agreements from the Ministry of Lands and Resettlement;
- Impact on settlements should be minimized. The new fence should not divide settlements or cut them off from essential services like schools, clinics, churches or community halls, water sources or access to public transport;
- Road access to the proposed compartment;
- To ensure that the existing free zone is not affected and remain protected;
- The availability of resources like funds as well as the capacity of the DVS to ensure the disease-free status of the proposed new compartment;
- The feasibility of achieving the OIE requirements in the shortest possible time.

See below the map showing how Options 1 and 2 were combined to propose the boundary for the compartment to be created under Option A, Phase One.

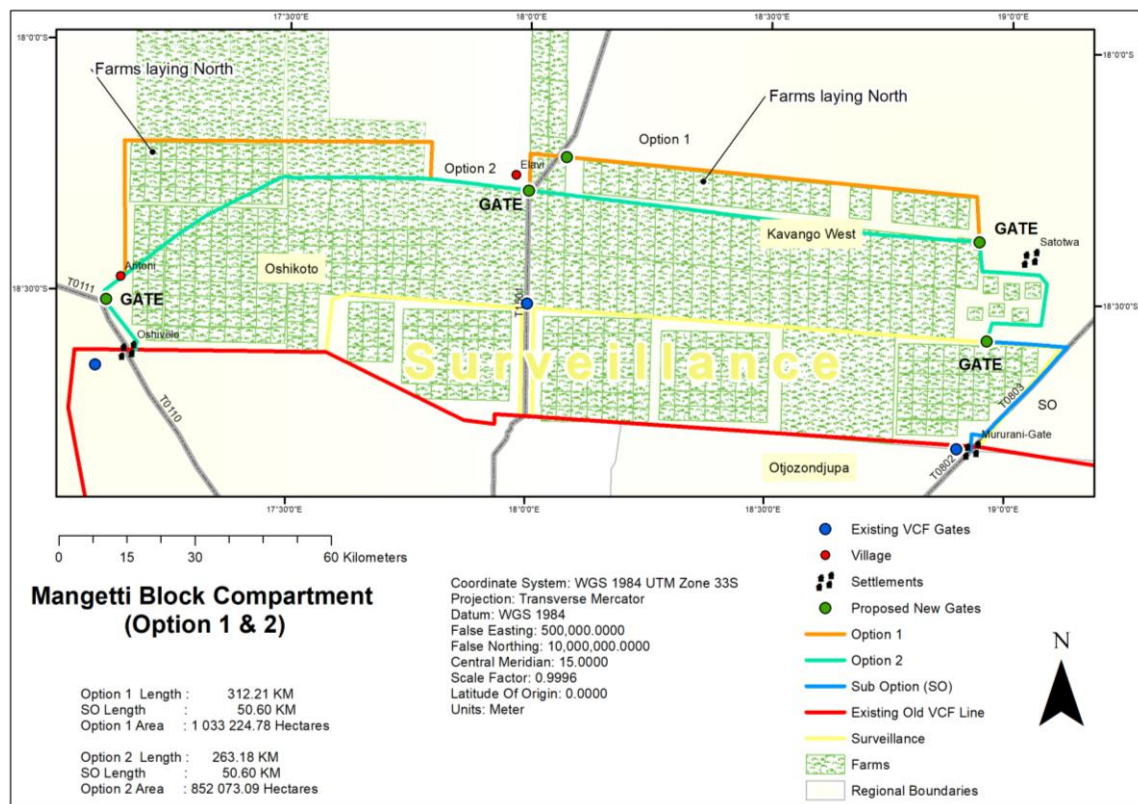


Figure 15: Option 1 and Option 2 proposed

The proposed compartment veterinary cordon fence will thus follow a combination of the most northern location of the orange and green lines as indicated on the map above. The proposed new gates which will be used to monitor and control access to the new compartment is shown as green dots on the map.

6.2. OPTION B – THE CREATION OF A NEW FREE ZONE

Under Option B, the Proponent intends to introduce a new disease-free zone to the north of the existing VCF to include the bulk of the demarcated farms in the NCA located in the Oshikoto, Ohangwena, Kavango West and Kavango East and Bushman Land Areas and immediate surroundings. The Map below shows the Target Areas of the NCA in yellow, the areas already included in the current disease-free in white and the National Parks in green.

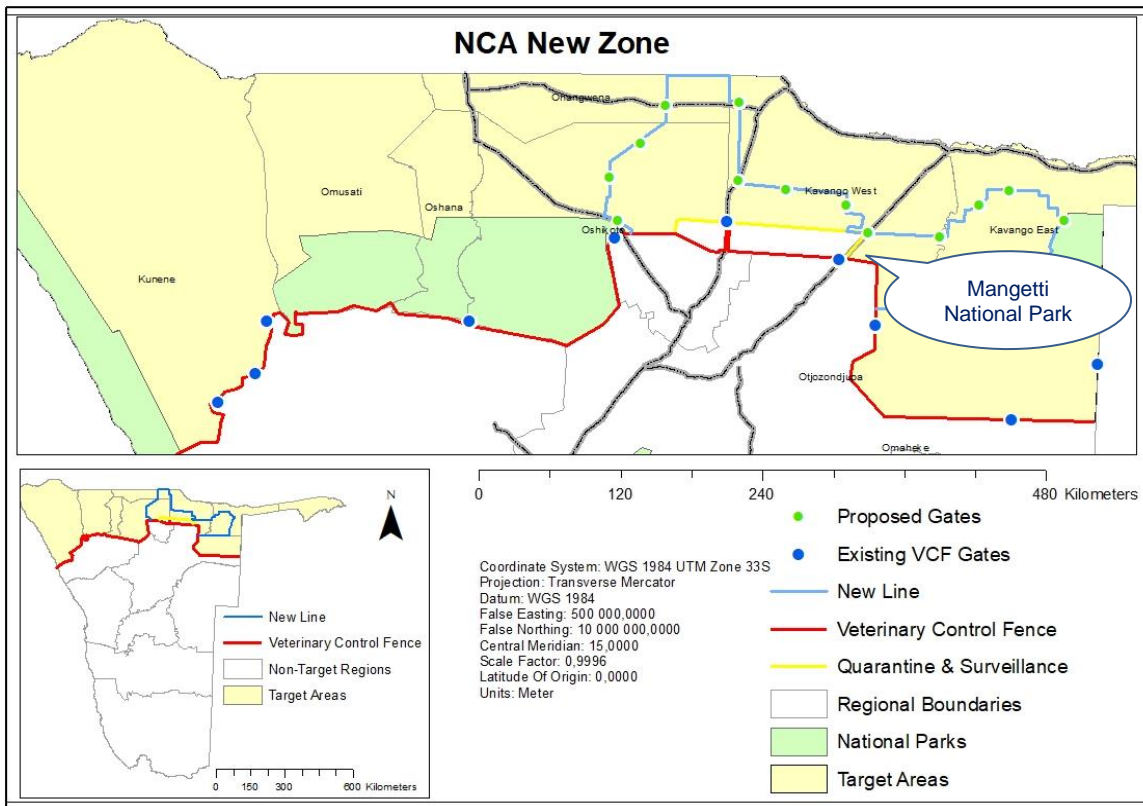


Figure 16: Blue line on Map indicates area of NCA to be included in new free zone

Option B was discussed during a second round of public meetings during July 2020 and October 2020. See table below for the I&APs consulted during these meetings and the attachments for the feedback obtained in the Minutes of the meetings as well as from letters that followed on to the meetings.

Date	Time	Town	Venue	Meetings	Contact Person
30 June 2020 (Tuesday)	15h00	Ondangwa	Palace of the King	Meeting with the King and representatives	Mannetjies Kambonde (081 124 6236)
01 July 2020 (Wednesday)	10h00	Omuthiya	Okashana Rural Development Centre (065 244 100)	Meeting with Oshikoto Farmers Union and Ministry of Lands representatives	Ismael Shailemo (081 632 0425) Thomas Nakanyala (081 279 3485) Tuhafeni Sheuyange (081 217 2519)
02 July 2020 (Thursday)	08h00	Ohangwena	Office/Palace of the Queen	Meeting with the Queen and representatives	Queen secretary: Mr Sheya (0814865535) Chief Efraim Weyulu (0812598197)
02 July 2020 (Thursday)	10h00	Eenhana	Eenhana Town Council (Expo Hall)	Meeting with Ohangwena Farmers Union, Chief and Ministry of Lands representatives	Martin Nghitombo (081 292 3704)
03 July 2020 (Friday)	9h00	Kavango West (Mbunza area)	Office of the Chief	Meeting with Chief Lafons Kaundu and representatives	Chief secretary: Mrs Maria (0813431939) Chief spoke person: Elia Kamanya (0814938007)
03 July 2020 (Friday)	11h00	Nkurenkuru	Nkurenkuru Town Council (Community Hall)	Meeting with Kavango West Farmers Union, Chief and Ministry of Lands representatives	Sabine Mufenda (081 246 1479) Chief Mr Eugene Siwombe Kudumo (081 602 5123)

Date	Time	Town	Venue	Meetings	Contact Person
13 July 2020 (Monday)	10h00		Office of the Chief/Palace	Meeting with Shambyu (Chief) Traditional Authority and representatives	Chief Sophia Mundjembwe Kanyetu - Shambyu Traditional Authority (081 296 2075) (066 256 076)
					Mr Kosmas Makanga - Senior Headman (081 303 5818)
Next Meeting					
13 July 2020 (Monday)	14h30		Office of the Chief/Palace	Meeting with Griciriku (Chief) Traditional Authority and representatives	Mr Festus Shikerele - Senior Headman and Acting Chief (081 397 8946)
Next Day					
14 July 2020 (Tuesday)	09h00	Rundu	Omashare Hotel (066 266 600)	Meeting with Kavango East Farmers Union, representatives and other stakeholders	Mr Adolf Muremi (081 154 7775) Mr Thimotheus Kativa (081 143 8515) Please ask them to invite many farmers
			Rundu Regional Council Hall not available due to renovations		Honourable Governor Bonifasius Wakudumo (066 267 243) (081 831 4533)
					Mr Ludwig Thikusho (066 266 000) The Regional Council should also please invite Hon. Johannes J.H. Thighuru who is the Chairperson Kavango East Regional Council
Next Meeting					
14 July 2020 (Tuesday)	16h30	Kavango West (Mbunza area)	Office of the Chief/Palace	Meeting with Chief Alfons Kaundu (Traditional Authority) and representatives	Mrs Maria – Chief Secretary (081 343 1939)

Date	Time	Town	Venue	Meetings	Contact Person
12 October 2020 (Monday)		Windhoek		Nyae Nyae Conservancy	Gerrie Cwi (Chairperson of Nyae Nyae Conservancy)
19 October 2020 (Monday)		Windhoek		Nyae Nyae Conservancy	Gerrie Cwi (Chairperson of Nyae Nyae Conservancy)
Next Meeting					
27 October 2020 (Tuesday)		Windhoek		Na Jaqna Conservancy	Sarah Zungu (Chairperson of Na Jaqna Conservancy)

The Map below shows the locality of the demarcated farms (the green parcels) as obtained from the Ministry of Land and Resettlement and its locality in relation to the proposed free zone.

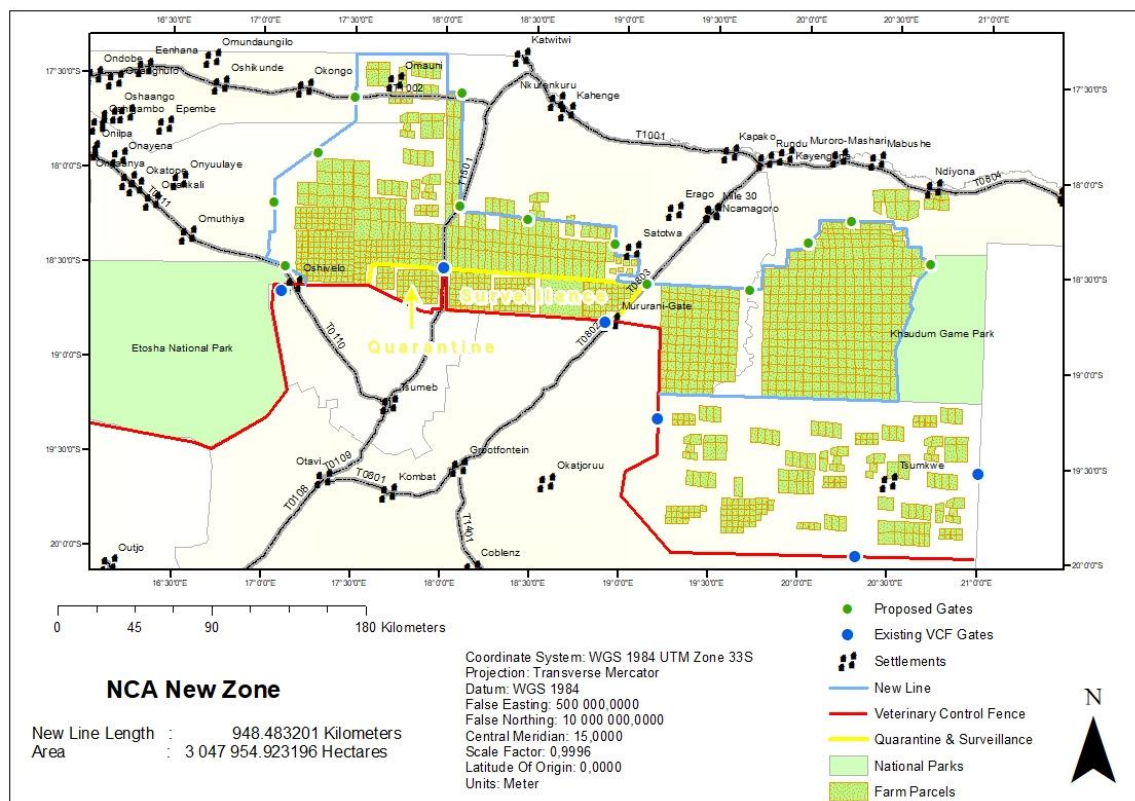


Figure 17: Demarcated Farms

From these meetings, small teams nominated by the meeting/relevant farmers unions and representatives of the DVS/Meat Board/Meatco Foundation were put together to confirm the proposed alignment of the new free zone boundary in their specific area. These teams drove the proposed fence alignment in their specific area and captured it per GPS Coordinates. The proposed alignment of the boundary of the new free zone is based on the fieldwork, visits, and inputs of these teams. The demarcated farms excluded from the proposed zone were excluded based on the advice and inputs from the affected I&APs in the area as well as the practical field visits by the teams. The Map below shows the proposed new free zone boundary:

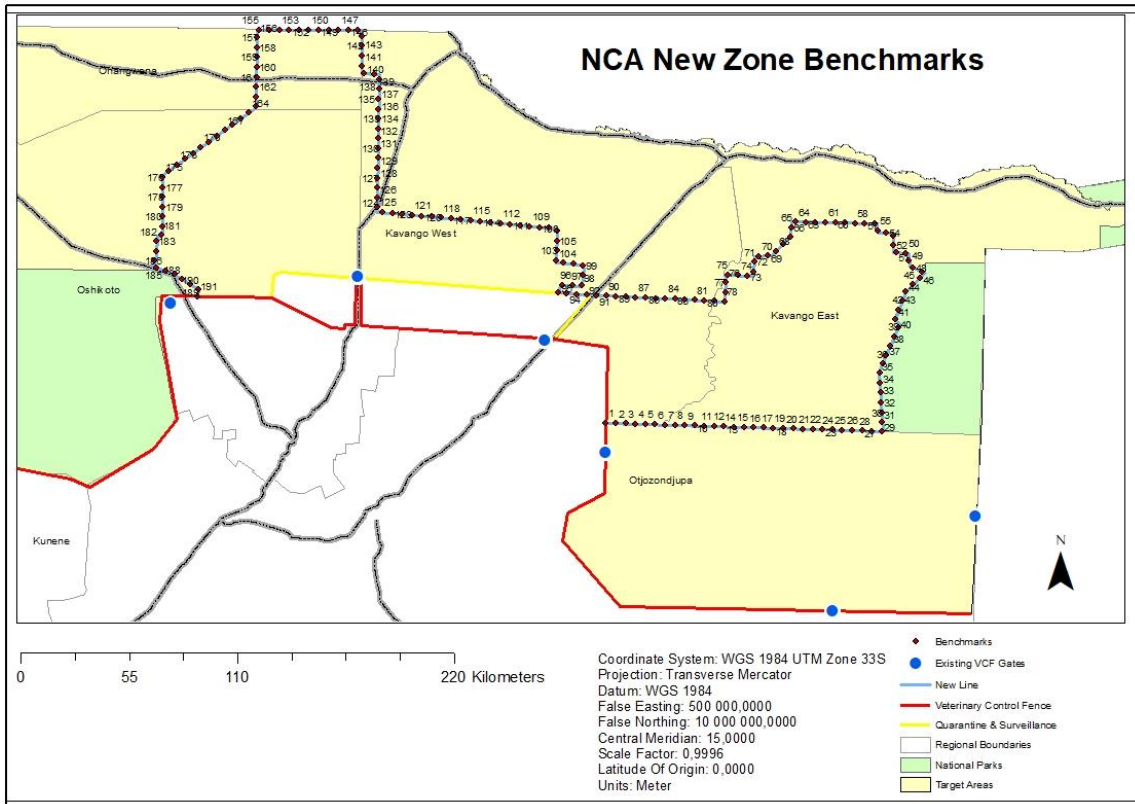


Figure 18: Free Zone Boundary

See attached the list of coordinates along with the proposed fence that will be constructed.

6.3. GENERAL FEEDBACK ON CONSULTATIONS WITH I&APs

The attendance registers, minutes of meetings, letters and emails received from the registered I&APs are attached to the EIA document. Letters were received from the:

- Kavango West Regional Farmers Union
- Oukwanyama Traditional Authority
- Kavango East Regional Council
- Nyae Nyae Conservancy
- Na Jaqna Conservancy

The document below summarised the general opinions and support towards the proposed activity.



KAVANGO WEST REGIONAL FARMERS UNION P.O. BOX 6277 NKURENKURU

Enquiries: Mr. Hausiku J.H. secretary (0814438612/0812463479)

06 JULY 2020

Email: hausiku@gmail.com / hmsulanda@yahoo.com

To: Green Earth Environmental Consultant
P O Box 6871
Auspanplatz
WINDHOEK

Subject: Feedback meeting to stakeholder on the environmental impact assessment for the proposed alignment and construction of the veterinary cordon fence to create a new free zone.

The meeting took place on the 3rd July 2020 at Nkurenkuru community hall and 42 farmers were in attendance.

After the presentation by the consultants follows by questions and comments from the participants, the meeting came up with the following way forward.

- Redline to include all official gazetted farms in KWR in phase 1
- Undisputed and ungazetted farms/communities to be included in phase 2 and proper awareness should be done by key stakeholders.
- The project of removing the redline need to be speeded up.
- Two persons from RFA to assist with the mapping exercise.
- Gates to be determined during the mapping by looking at aspects like distance, roads etc.
- Establish a committee for the redline consisting of TA, Union, Meatboard and other stakeholders from line Ministries and Regional councils.
- During the tour on mapping a land planner must be included and after mapping process consultation must be done with community/villages affected by the redline to hear their views.
- If the redline is aligned farmers should be included in the charcoal business and harvesting natural resources.
- After mapping, avail the maps in time to all stakeholders.

- Namibia became a sovereignty state since 21 March 1990 and the GRN promised the removal of Redline to the border between Angola and Namibia, because it divided our country and disadvantage Northern Communal Famers/communities and GRN should fulfil this promises.
- During 2nd National Land Conference it was resolved the removal of redline to the border, therefore we are demanding to the GRN to speed up implementation of the project to benefit all Namibian citizen in phase 2.

Sirikka Ausiku
Chairperson/Secretary

06/07/2020
Date

Cc: Hon.Sirikka Ausiku Regional Governor of Kavango West Region

Hon Joseph S.Sikongo Chairperson of Kavango West Regional Council.

Hon.Hompa of Uikwangali, Mbunza and Shambyu Traditional Authority

Mr Shamate Mealco Foundation



Figure 19: Letter from the Kavango West Regional Farmers Union

**Feedback on farmers meeting regarding the shifting
of the Veterinary Cordon Fence**

Date: 7th July 2020

Venue: Oukwanyama Traditional Authority
Office, Okongo

Time: 9H00

Compiled by: Mr. Efraim Weyulu
Mr. Paulus Amaambo

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1. Introduction

The Veterinary Cordon Fence (VCF), also referred to as the “Red Line”, was erected in 1896 as a pragmatic disease surveillance and exclusion fence separating northern and central Namibia to southern Namibia. The VCF in its current form and location remains a challenge to the entire livestock industry in general and the northern farmers in particular. Although the VCF’s main purpose is to control animal and meat movement from the north to the south of Namibia as well as ensuring that marketing of animals from the South of the Veterinary Cordon Fence (SVCF) with a different disease status as those from the NCA is controlled. To ensure that the lucrative market is maintained, it’s essential to ensure that complete adherence and compliance to protocols and regulations required by major international clients like the United Kingdom (UK), China, Norway and European Union (EU) are maintained.

The Ohangwena farmers met on 7th Jul 2020 in Okongo to discuss the proposed gradual shifting of the veterinary cordon fence. The meeting was chaired by Mr. Mukumangeni. Mr. Efraim Weyulu informed the farmers that there is a consultant appointed to engage the farmers in order for the farmers to propose the area that they think is suitable to be included in the zoning of the VCF area. The meeting was necessitated by the fact that the initial meeting was not well attended and it seems the invitation to the farmers was not well coordinated because even the regional leadership including the office of the Hon. Governor was not aware that there is a consultant appointed to consult the farmers.

2. Discussion

The farmers discussed the issue and considered many aspects. Farmers noted that there is always discrepancies and distortion of information. Having noted the above, the farmers nominate institutions and individuals to serve in the committee that will spearhead the demarcation of the proposed area where the CF shall shift. Additionally, the farmers discussed and identified different areas where the gates could be constructed. Farmers observed that the costs of constructing gates is always high and they proposed only three (3) gates to be erected. However, consideration must be made to make movement of people smooth when visiting their farms. Consequently, the farmers discussed and proposed the localities where the VCF must be shifted which should include the community forests and the quarantine and motivation of shifting the VCF as well as mitigation measures to be in place to prevent diseases.

3. Committee

The farmers noted that the consultant should be guided in order to capture the correct proposed localities and points where the VCF is planned by the farmers to be shifted. The following people and institutions were nominated to form part of the working group/team that will accompany the verification and mapping team in the field.

- 1) Onghalulu Cooperative
- 2) Okongo Community Forest
- 3) Omufituwekuta Community Forest
- 4) Okongo Farmers Association
- 5) Ohangwena Livestock Marketing
- 6) MAW&LR (Directorate of Veterinary Services)

4. Gates

The farmers proposed that the gates must be erected at the following points

- 1) Omhana
- 2) Onehanga
- 3) Omauni

5. Proposed VCF servitude

The farmers proposed that the VCF must be shifted along the following localities and points.

The VCF must start from Mangetti farms to Polopolo road, Onghalulu, Ekokofi, Onane and it must include the whole area of Okongo Quarantine, Omufituwekuta Community Forest, Okongo Community Forest up to Angolan and Namibian boarder until the border between Ohangwena and Kavango west region.

6. Motivation

The farmers indicated that, the main motivation for the VCF to be shifted to the proposed area above is as per the following reasons

- 1) Commercial marketing of livestock
- 2) Access to global market - the purpose is to enable the northern farmers to export to larger market and for the farmers to be integrated in the wider Namibian livestock market and the addition of livestock north of the VCF will greatly boost the country export volume
- 3) Economic growth of the country economy
- 4) To unite Namibian in the meat industry

7. Proposed mitigation

The farmers propose that the following must be in place or should be embarked on namely:

- 1) Embarking on vigorous vaccination programme
- 2) Capacity building of farmers
- 3) Introduce very strict veterinary control - Control measure on the movement and keeping of livestock
- 4) Mind shift of farmers from being livestock keeper to livestock farmer
- 5) People who has constructed residential homestead (traditional homestead) in the community forests must relocate because the area is aimed for farming and all those who reside in the community forests after it was gazetted are illegal settling in the area.

8. Conclusion

The farmers in Ohangwena region are recommending that, the VCF must be shifted as per the zoning above and the mitigation measures must be promptly incorporated in the shifting documentation plan in order to control and maintain the lucrative oversea livestock market and the meat industry in general.

Annexure 1- Attendance register

End

Figure 20: Letter from the Oukwanyama Traditional Authority



KAVANGO EAST REGIONAL COUNCIL

Office of the Regional Councillor
Mukwe Constituency

Tel: + 0264 66 258 398/ 395
P.O. BOX 5105
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Diyundu
Email: mukwe@kway.na
Namibia

09 March 2020

Green Earth Environmental Consultants

Dear Sir/Madam

RE: INVITATION LETTER TO GIVE FEEDBACK TO STAKEHOLDERS ON THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED ALIGNMENT AND CONSTRUCTION OF THE VETERINARY CORDON FENCE TO CREATE A FREE ZONE

1. I refer to the above subject matter and your letter dated 7 July 2020.
2. As Regional Councillor of Mukwe Constituency and in support of the farming community in Mukwe Constituency i wish to expressed our thanks and appreciation that your organization has organisation has arranged a meeting in Rundu to give feedback on the above subject matter.

3. We have noted with grave concern on the veterinary proposed map which you have attached to your letter of invitation. It appears that the whole area of Mukwe Constituency or district was excluded.
4. As a matter grave concern and because this is affecting the livelihood of the people of Namibia, the region and Mukwe Constituency in particular, we would like to make use of this opportunity to register our discontent, because your proposal will totally exclude the farmers in this area starting at 19° degrees until 21° degrees.
5. This area has about 18 farm units which was demarcated and approved by the Ministry of Agriculture some years ago.
6. On behalf of farmers and the entire community of Mukwe Constituency, we are requesting your company to reconsider your decision and to include that area.
7. We are proposing the extension of the blue new cordon fence to pass through the following degree coordinates as listed here under:
 - 7.1 18°12'09.3" S 20°42'04.2" E
 - 7.2 18°05'37.5" S 20°59'12.0" E
 - 7.3 18°03'12.8" S 21°05'47.7" E
 - 7.4 18°02'32.2" S 21°13'44.6" E
 - 7.5 18°07'03.0" S 21°23'04.1" E
 - 7.6 18°11'39.4" S 21°32'28.4" E
 - 7.7 18°17'56.6" S 21°32'56.5" E
8. We have attached a map with a drawing in red line highlighted in yellow indicating the area which need to be covered or included.
9. This area is highly potential for large and small stock farming.

Kind regards

HON. JOHANNES H THIGHURU
REGIONAL COUNCILLOR

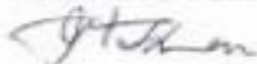



Figure 21: Letter from the Kavango East Regional Council



And COMMUNITY FOREST
Tsumkwe, P.O. Box 45, Groofoontein, Namibia. Tel/Fax no: 067-244011

17 November 2020

TO: Meateo Foundation

Dear Kuniberth and Charlie

Thank you for your consultative meeting with us on Monday 12 October.

After discussion at our committee level and at the AGM on 17 November 2020, we agreed that the Nyae Nyae Conservancy would like to be excluded from the suggested free zone.

We have indicated with a red pen on the map where we would like the new red veterinary fence to be, which is the gazetted northern boundary of the Conservancy (see attached), excluding the area of Khaudum boundary, as we need the game animals to move freely between Khaudum and Nyae Nyae, as we are dependent on these animals both traditionally and for Trophy hunting .

Attached please find the map with our proposed red line and the gazetted co-ordinates of our conservancy boundaries.

If you have any questions, please contact us.

Yours sincerely

Gerrie Cwi
Chairperson

Figure 22: Letter from the Nyae Nyae Conservancy



N#A JAQNA CONSERVANCY P.O.Box 1049 Grootfontein Telephone/Fax: 067 245047

5th November 2020

Mr Kuniberth Shamati
Mr Kingsley Kwenani
Meatco Foundation
Windhoek

Mr Charlie du Toit
Greenworld
Windhoek

Dear Sirs

Your consultative meeting with us on Tuesday 27th October 2020 has reference.

After discussions with our Management Committee, we decided that the Na Jaqna Conservancy must be excluded from the suggested new free zone.

We have indicated with a red pen on the map where we would like the new red veterinary fence to be, which is the gazetted northern boundary of the Conservancy, excluding the area of Khaudum boundary, as we need the game animals to move freely between Khaudum, Nyae Nyae Conservancy and N#A Jaqna Conservancy as we are dependent on these animals both traditionally and for Trophy hunting .

Attached please find the map with our proposed red line. The boundaries of the Conservancy are described in Government Notice No.162 in the Government Gazette No. 3027 of 24 July 2003.

If you have any questions, please contact us.

Yours in development

Chairperson
Sarah Zungu

Figure 23: Letter from the Na Jaqna Conservancy

From the consultations with I&APs during the public meetings and site visits and the observations while travelling through the area, it is concluded that:

- The meetings were well attended and conducted in a good spirit;
- The communities affected by proposed new free zone are overwhelmingly supporting the project;
- Implementation of the project is long overdue and urgent;
- Communities consulted understands that the project will be phased, due to budgetary or practical considerations. They requested that they be informed on the timeline and areas to be included in the following respective phases;
- It was observed that sections of the roads servicing the area to be included in the free zone are sandy and narrow. Because of this, cattle must be transported from the farms to markets by 4X4 vehicles with small trailers (capacity limited to 3 – 4 animals pending on size). This adds huge costs to the marketing of the animals and has a negative effect on the profit margin of the farmer. These roads will have to be upgraded to improve access to the new free zone and to maximise the benefits from including this area in the new zone;
- In case where the alignment of the proposed boundary of the new free zone separates communities from supporting infrastructure like water supply points, schools, clinics, churches etc. access to this infrastructure should be provided by installing a gate (to be manned 24hours) or by duplicating the infrastructure on both sides of the fence. This should be avoided as it will add unnecessary costs to the project.

Important comments were received from the meeting with the Meat Board (in particular the Animal Health Committee):

Since the goal of the assignment is to create a new disease-free compartment, it is crucial that:

- The Directorate Veterinary Services (DVS) form an integral and central part of the formulation of proposals – the DVS is the only organ responsible for the certification of the animal disease status and meat hygiene status of Namibia;
- The creation of a new disease-free compartment should be accompanied by a diligent and detailed feasibility study incorporating the views of all stakeholders;
- That no infrastructural amendment to the existing free zone be made to ensure sustained compliance with the OIE and importing country requirements – In no way should Namibia’s export markets be tampered with;
- That the intended future “new” free zone be affordable to GRN in terms of capital investment and maintenance by DVS – keeping in mind financial resources are limited;
- That the “new” compartment/zone accommodates most of the commercial and semi-commercial farmers of the Oshikoto and Kavango Mangetti;
- Should communal areas be included, that sufficient provision be made to rangeland management, livestock control, accessibility to waterpoints, availability of marketing infrastructure, and supporting services – roads, etc. Only a restricted number of livestock could be accommodated in such an opened zone;

- That the integrity of the new compartment be guaranteed/maintained by GRN/DVS – besides for FMD, other diseases such as CBPP are also applicable;
- That the “advantaged” producers be under no illusion that benefits derived from the creation of a new disease-free compartment will result immediately.

Special notice should be taken on the following feedback:

- The exclusion of the Mukwe Constituency

The Kavango East Regional Council requested the inclusion of the Mukwe Constituency in the new free zone. This request was discussed at length at the meeting with the representatives of the Kavango East Regional Council as well as of the Kavango East Regional Farmers in Rundu and it was concluded **that this area cannot be included** as it is in the ‘infected zone’ and subject to high volumes of seasonal elephant movement. Buffaloes are also frequent in the area.

- The exclusion of the Nyae Nyae and Na Jaqna Conservancies

The Nyae Nyae and Na Jaqna Conservancies (Bushman Land Area) requested **that these conservancy areas be excluded from the new free zone** as the free movement of wild animals between the conservancy area and the Khaudum National Park act as an important feeder of animals into the Conservancy Area. The members of these Conservancies are dependent on these animals both traditionally and for trophy hunting.

The above comments were considered in the final alignment of the fence boundary of the proposed free zone.

6.4. SPECIFICATION OF THE FENCE

The proposed FMD free zone fence-line length is ±949km while the size of the proposed new free zone area is ±3 047 954.92ha. The area covers part of Oshikoto, Ohangwena, Kavango West and Kavango East Regions but exclude Bushman Land. The proposed fence is indicated by the blue line in the figure below:

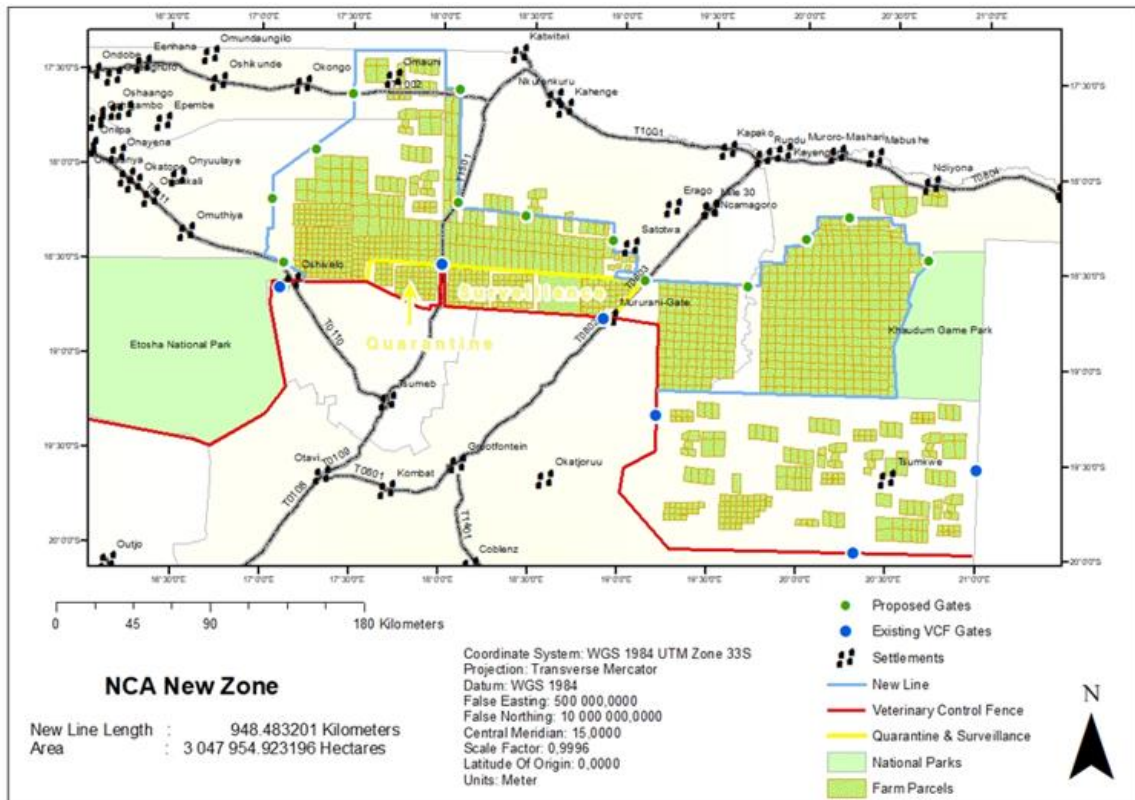


Figure 24: Map showing demarcation of proposed FMD free zone area

The fence to be constructed will have the following qualities:

- It will be a dual fence 10m apart. The spacing between the double fences as per OIE requirements is 10m.
- The height of the outer fence will be 2.4m high to prevent game animals from entering or exiting the compartment. The inner fence will be 1.5m high for stock proof to keep small stock away from the outer fence.
- Sections of the fence will be electrified to deter elephants from damaging the fences.
- The outer fence (to the perceived area of disease) will be a normal stockproof fence.
- The inner fence (directly next to the disease-free zone) will be a game proof fence.
- The area between the fences as well as on both sides of the fences will be cleared of vegetation to prevent direct contact of livestock from the perceived area of disease prevalence with the other livestock that are in the disease-free zone.
- The game fence will be elephant proof (probably electrified).
- The fence will be a straight line as far as possible.
- The fence will be outside the road reserves where it is aligned along a proclaimed road.
- The livestock fence will consist of wire mesh to prevent the crossing of small stock.

See below photos of the current fence:



Figure 25: Photos of the fence (1)



Figure 26: Photos of the fence (2)

The design specifications of the proposed fence are attached to this document.

7. BULK SERVICES AND INFRASTRUCTURE PROVISION

7.1. ACCESS AND INTERNAL ROADS

The proposed compartment impacts on the following roads: B8, B15, D3610, D3600 and D3446. All of these roads are proclaimed and under the jurisdiction of the Roads Authority. Some of the “D” roads are sandy, narrow and in a condition that only allow access by 4X4 vehicles. It is hardly possible to pass an oncoming vehicle without going off-road. It also means that the area is not accessible by trucks for the collection and transportation of animals or farming inputs. Currently the farmers transport their animals in two’s and three’s on 4X4 bakkies with trailers. This is costly and impacts negatively on profit margins. Some of the roads must be upgraded to unlock the farming potential of the proposed compartment. The roads required for the patrolling and repairs of the fence will be constructed along the fences.

Thirteen (13) gates are proposed for the proposed free zone. The provision is based on ground assessment, the need to prevent animals from uncontrolled exiting and entering the zone and the need for farmers to access the farms, and DVS for inspection. Each gate will cost about N\$2.5 million as it will require the government to avail veterinarian and police staff to guard the gates. A typical example of an existing VCF gate at Mangetti block area is shown in the *Figure* below:



Figure 27: Example of gate

7.2. WATER SUPPLY

Water for human consumption during the construction of the fence will be obtained from either existing water installations, farmers or community members in the area or from containers that will be transported to site. The new gates to be constructed will obtain water from existing water installations in the area or boreholes located near these sites.

7.3. ELECTRICITY RETICULATION

Electricity will be required for the electrification of the fence as well as to supply the office, housing and other facilities to be constructed at the new gates. The fence will be provided where possible with renewable energy sources for example solar will be used to generate the required electricity.

7.4. SEWAGE DISPOSAL

It is advised that the non-local construction workers are housed in formalised communities with formal sewer and ablution facilities along the proposed fence route for the duration of the construction period. If it is required to set up temporary construction camps along the proposed fence route, it is proposed that a portable chemical toilet system is used during the construction phase at the construction site to be used by workers during normal working hours when on site. The sewer generated during the construction phase (depending on the system used) must be disposed of in the sewer systems located at nearby towns (Veterinary Cordon Fence, Nkurenkuru, Otjivelo, etc.) on a weekly basis with the necessary permission from the local authority.

The infrastructure to be constructed (offices, houses and other supporting facilities) at the new gates has to be provided with an approved sewer system which will treat the water to 'General Special Standards' (as per the MAWLR standards) before it may be spilled into percolation drains or French Drains.

7.5. SOLID WASTE DISPOSAL/REFUSE REMOVAL

It is proposed that the normal household waste and building rubble which will be generated on the construction site be sorted into glass, paper, metal, plastics, noxious materials and others and stored in a dedicated area on the site from which it is collected and transported to the approved landfill site of the formal Towns in the area. Permission must be obtained by the contractor from these Town Councils for the dumping of the waste at the sites.

8. PROJECT FEASIBILITY AND SUSTAINABILITY RISKS

Burmeister & Partners Consulting Engineers and Meatco Foundation prepared a Feasibility Study for creating a new foot and mouth disease (FMD) free zone in the FMD protection zone of the Northern Communal Areas. A copy of the Feasibility Study is attached to the EIA.

In the Feasibility Study certain risks, which might have an influence on the sustainability of the project, have been identified. These risks have been rated and the proposed mitigation measures are listed in the *Table* below:

Table 1: Risk Assessment

Risk identified	Rating	Mitigation
Community rejection and cutting of the fence	Low	Community interest is taken care of by distancing the fence-line from their livelihood and economic activities. Request by farmers and leadership to include few farms north of the proposed fence-line was considered.
Elephant destroying fence-line	High	Elephant proof fence is recommended since the area has elephants. Use of best possible construction techniques and materials. Use of electric fence to deter the elephant from crossing and destroying the fence.
Illegal movement of livestock inside the compartment.	Medium	Enforcement and tighten inspection and protection by DVS and police staff. Education programme for the surrounding communities on rules and regulations of the compartment. Involvement of local leadership including traditional authority in resolving issues related to compartment.
Overstocking of the compartment due to market incentive that result in overgrazing of the compartment	Medium	MAWF should continue to educate and support farmers within a compartment on sustainable rangeland management. Stocking rate and carrying capacity to be adhered to.

Unexpected outbreak of FMD within the compartment	Low	The compartment will be under surveillance until cleared by OIE when satisfied. DVS to implement best modality to prevent any outbreak of FMD. The compartment will be closed off if any FMD case is identified within the compartment. This will not affect the current FMD free zone south of the current VCF since this compartment will be north of the current VCF. The current VCF will remain intact until cleared by OIE. If a FMD case is identified within the compartment, the compartment will be closed off and all livestock will be vaccinated against FMD. The observation will continue until considered cleared. So far Mangetti block never had a record of FMD outbreak.
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The Feasibility Study concluded that among the three options of creating a FMD free zone, compartmentalisation, and maintaining of the FMD protection zone; the finding of the study indicated that the FMD free zone was the best option followed by the compartmentalisation. To continue maintaining the FMD protection zone is the last option. In addition to poor Cost-Benefit Analysis outcomes, the compartment option has other further limitations such as cannot be cleared by OIE to be FMD free and the area is smaller compared to a zone. The results of this study showed that neglecting to create a new FMD free zone or compartment could be expensive in the long term as the cost of vaccination would exceed the cost of creating and maintaining of a new FMD free zone. Creating a FMD free zone will also reduce the cost of control during FMD outbreak in the NCA.

The findings show that the creation of a new FMD free zone in the central north of Namibia would bring significant benefits of increased cattle prices, which would eventually lead to increased revenue for farmers. This finding is confirmed by various studies, which also discovered that the benefits of good prices and revenue from international export markets is the main reason countries create FMD free zones. The study also highlighted non-monetary benefits of creating FMD free zone such as employment and new markets creation. Therefore, it is concluded that the benefits of the FMD free zone outweigh the costs and it will improve the socioeconomic aspects of the communal farmers in the area and Namibia at large.

In terms of the funding option, the Feasibility Report concluded that the creation of a FMD free zone or compartment is to be done by the Government. The alternative option is a joint funding by Government (70%), donors (20%) and 30% repayment by farmers. This option suggests borrowing 30% of capital investment to be repaid by farmers as indicated in the Feasibility Report.

Based on the findings of the feasibility study, the following was recommended:

- A new FMD free zone in the NCA be created since the study has concluded that such an investment is feasible and economically viable.

- Roads passing through proposed gates of the FMD free zone should be gravelled to improve mobility in the area because currently farmers struggle to access their farms due to sandy roads.
- The gravelling of the roads should be funded by Roads Authority with contribution from other stakeholders such as donors if possible.
- As a first option, the creation of the FMD free zone in the NCA should be 100% funded by the Government of the Republic of Namibia.
- If the government is not able to fund the initiative 100%, a co-financing model which involves government (70%), repayment by farmers (30%) and donors (20%) should be considered as an alternative option. Since contributing 30% of capital investment to be covered by the farmer's levy within the two years of fence-line of contraction, the government should borrow funds or bring in investors.
- The agreement will be each farmer within the zone be levied NAD2.00 per kg per cattle whenever they sell their cattle.
- If the second option is adopted, the government should set up a Special Purpose Vehicle (SPV) structure to fund and manage the FMD free zone for a period of at least 10 years until the borrowed funds are repaid from proceeds of the farmer's levy.

9. ASSUMPTIONS AND LIMITATIONS

It is assumed that the information provided by the Proponent, the Meatco Foundation and the engineers is accurate. The proposed site was determined from various alternatives that were discussed from a variety of meetings with the communities and stakeholders. The assessment is based on the prevailing environmental conditions and not on future happenings on the site. However, it is assumed that there will be no significant changes to the proposed project, and the environment will not adversely be affected between the compilation of the assessment and the implementation of the proposed construction activities.

10. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programs and policies deemed to have adverse impacts on the environment require an EIA according to Namibian legislation. The administrative, legal and policy requirements to be considered during the Environmental Assessment for the proposed project are the following:

- The Namibian Constitution
- The Environmental Management Act (No. 7 of 2007)
- OIE Terrestrial Animal Health Code (Terrestrial Code)
- Other Laws, Acts, Regulations and Policies

THE NAMIBIAN CONSTITUTION

Article 95 of Namibia's constitution provides that:

"The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following:

Management 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." This article recommends that a relatively high level of environmental protection is called for in respect of pollution control and waste management.

Article 144 of the Namibian Constitution deals with environmental law and it states:

"Unless otherwise provided by this Constitution or Act of Parliament, the general rules of public international agreements binding upon Namibia under this Constitution shall form part of the law of Namibia". This article incorporates international law, if it conforms to the Constitution, automatically as "law of the land". These include international agreements, conventions, protocols, covenants, charters, statutes, acts, declarations, concords, exchanges of notes, agreed minutes, memoranda of understanding, and agreements (*Ruppel & Ruppel-Schlichting, 2013*). All ratified treaties and protocols are enforceable in Namibia by the Namibian Courts and these include the following:

- World Heritage Convention, 1972
- Vienna Convention for the Protection of the Ozone Layer, 1985
- Montreal Protocol on Substances that Deplete the Ozone Layer, 1987
- Convention on Biological Diversity
- Convention to Combat Desertification, 1994
- United Nations Framework Convention on Climate Change, 1998
- Kyoto Protocol on the Framework Convention on Climate Change, 1998
- The Paris Agreement, 2016

It is therefore important that the international agreements and conventions are considered.

CONCLUSION AND IMPACT

In considering the environmental rights, the Ministry of Agriculture, Water and Land Reform (MAWLR) and especially the Department of Veterinary Services (DVS) should consider the following in devising an action plan in response to these articles:

- Implement a "zero-harm" policy that would guide decisions.
- Ensure that no management practice or decision result in the degradation of future natural resources.
- Take a decision on how this part of the Constitution will be implemented as part of the Ministry of Agriculture, Water and Land Reform (MAWLR)'s and DVS Environmental Control System (ECS).

ENVIRONMENTAL MANAGEMENT ACT (NO. 7 OF 2007)

The Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007) that came into effect in 2012 requires/recommends that an Environmental Impact Assessment and an Environmental Management Plan (EMP) be conducted for the following listed activities in order to obtain an Environmental Clearance Certificate:

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

1. *The construction of facilities for -*
 - (a) *the generation of electricity.*
 - (b) *the transmission and supply of electricity.*

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- 2.1 *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- 2.3 *The import, processing, use and recycling, temporary storage, transit or export of waste.*

FORESTRY ACTIVITIES

4. *The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act (No. 12 of 2001) or any other law.*

LAND USE AND DEVELOPMENT ACTIVITIES

- 5.3 *Construction of veterinary protected area or game proof and international boundary fences.*

WATER RESOURCE DEVELOPMENTS

- 8.1 *The abstraction of ground or surface water for industrial or commercial purposes.*
- 8.2 *The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.*
- 8.6 *Construction of industrial and domestic wastewater treatment plants and related pipeline systems.*

INFRASTRUCTURE

- 10.1 *The construction of public roads.*

Cumulative impacts associated with the development must be included as well as public consultation. The Act further requires all major industries to prepare waste management plans and present these to the local authorities for approval.

The Act, Regulations, Procedures and Guidelines have integrated the following sustainability principles. They need to be given due consideration, particularly to achieve proper waste management and pollution control:

Cradle to Grave Responsibility

This principle provides that those who handle or manufacture potentially harmful products must be liable for their safe production, use and disposal and that those who initiate potentially polluting activities must be liable for their commissioning, operation and decommissioning.

Precautionary Principle

If there is any doubt about the effects of a potentially polluting activity, a cautious approach must be adopted.

The Polluter Pays Principle

A person who generates waste or causes pollution must, in theory, pay the full costs of its treatment or of the harm, which it causes to the environment.

Public Participation and Access to Information

In the context of environmental management, citizens must have access to information and the right to participate in decisions making.

CONCLUSION AND IMPACT

The proposed alignment, construction and operation of the new Veterinary Cordon Fence has been assessed in terms of the Environmental Management Act (No. 7 of 2007) and the Regulations (2012). From the assessment, it can be concluded that the activities will have impacts on the prevailing environment but that the negative impacts can be sufficiently mitigated and managed by following the Environmental Management Plan which is part of this document.

OIE TERRESTRIAL ANIMAL HEALTH CODE (TERRESTRIAL CODE)

The *Office International des Epizooties (OIE)* Terrestrial Animal Health Code (Terrestrial Code) provides standards for the improvement of animal health and welfare and veterinary public health worldwide, including through standards for safe international trade in terrestrial animals (mammals, reptiles, birds and bees) and their products. The health measures in the Terrestrial Code should be used by the MAWLR and DVS of importing and exporting countries to provide for early detection, reporting and control agents that are pathogenic to animals or humans, and to prevent its transfer via international trade in animals and animal products, while avoiding unjustified sanitary barriers to trade.

CONCLUSION AND IMPACT

The MAWLR and specifically the DVS are fully aware of the OIE Requirements and it is closely followed to ensure that disease-free areas remain disease-free and to introduce new disease-free areas. The final certification that the proposed compartment is disease-free will have to be done under the OIE supervision and standards.

OTHER LAWS, ACTS, REGULATIONS AND POLICIES

Laws, Acts, Regulations & Policies consulted:		
Electricity Act (No. 4 of 2007)	In accordance with the Electricity Act (No. 4 of 2007) which provides for the establishment of the Electricity Control Board and provide for its powers and functions; to provide for the requirements and conditions for obtaining licenses for the provision of electricity; to provide for the powers and obligations of licenses; and to provide for incidental matters: the necessary permits and licenses will be obtained.	The Proponent must abide to the Electricity Act.
Pollution Control and Waste Management Bill (guideline only)	The Pollution Control and Waste Management Bill is currently in preparation and is therefore included as a guideline only. Of reference to the mining, Parts 2, 7 and 8 apply. Part 2 provides that no person shall discharge or cause to be discharged, any pollutant to the air from a process except under and in accordance with the provisions of an air pollution license issued under section 23. Part 2 also further provides for procedures to be followed in license application, fees to be paid and required terms of conditions for air pollution licenses. Part 7 states that any person who sells, stores, transports or uses any hazardous substances or products containing hazardous substances shall notify the competent authority, in accordance with sub-	The Proponent must adhere to the Pollution Control and Waste Management Bill.

	<p>section (2), of the presence and quantity of those substances. The competent authority for the purposes of section 74 shall maintain a register of substances notified in accordance with that section and the register shall be maintained in accordance with the provisions. Part 8 provides for emergency preparedness by the person handling hazardous substances, through emergency response plans.</p>	
<p>Water Resources Management Act</p>	<p>The Water Resources Management Act (No. 11 of 2013) stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also be controls on the disposal of sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.</p>	<p>The Ministry of Agriculture, Water and Land Reform must be consulted. Fresh water abstraction and waste-water discharge permits should be obtained when required.</p>
<p>Solid and Hazardous Waste Management Regulations: Local Authorities 1992</p>	<p>Provides for management and handling of industrial, business and domestic waste.</p>	<p>The Proponent must abide to the solid waste management provisions.</p>
<p>Hazardous Substances Ordinance (No. 14 of 1974)</p>	<p>The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export and is administered by the Minister of Health and Social Welfare. Its primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.</p>	<p>The Proponent must abide to the Ordinance's provisions.</p>
<p>Atmospheric Pollution Prevention Ordinance of</p>	<p>Part 2 of the Ordinance governs the control of noxious or offensive gases. The Ordinance prohibits anyone from carrying on a scheduled process without a</p>	<p>The proponent should adhere to the stipulations of the Atmospheric Pollution Prevention Ordinance.</p>

Namibia (No. 11 of 1976)	registration certificate in a controlled area. The registration certificate must be issued if it can be demonstrated that the best practical means are being adopted for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.	
Nature Conservation Ordinance	The Nature Conservation Ordinance (No. 4 of 1975) covers game parks and nature reserves, the hunting and protection of wild animals, problem animals, fish and indigenous plant species. The Ministry of Environment, Forestry and Tourism (MEFT) administer it and provides for the establishment of the Nature Conservation Board.	The proposed project implementation is not located in a demarcated conservation area, national park or unique environments.
Forestry Act	The Forestry Act (No. 12 of 2001) specifies that there be a general protection of the receiving and surrounding environment. The protection of natural vegetation is of great importance, the Forestry Act especially stipulates that no living tree, bush, shrub or indigenous plants within 100m from any river, stream or watercourse, may be removed without the necessary license.	No removal of protected tree species or removal of mature trees should happen. The Ministry of Environment, Forestry and Tourism should be consulted when required.
EU Timber Regulation: FSC (2013)	Forest Stewardship Council (FSC) came into effect in March 2013, with the aim of preventing sales of illegal timber and timber products in the EU market. Now, any actor who places timber or timber products on the market for the first time must ensure that the timber used has been legally harvested and, where applicable, exported legally from the country of harvest.	The Proponent is advised to adhere to the regulation.
Labour Act	The Labour Act (No. 11 of 2007) contains regulations relating to the Health, Safety and Welfare of employees at work. These regulations are prescribed for	The proponent and contractor should adhere to the Labour Act.

	<p>among others safety relating to hazardous substances, exposure limits and physical hazards. Regulations relating to the Health and Safety of Employees at Work are promulgated in terms of the Labour Act 6 of 1992 (GN156, GG1617 of 1 August 1997).</p>	
Communal Land Rights	<p>Communal land is land that belongs to the State and is held in trust for the benefit of the traditional communities living in those areas. Communal land cannot be bought or sold, but one can be given a customary land right or right of leasehold to a part of communal land in accordance with the provisions of the Communal Land Reform Act (No. 5 of 2002) and Communal Land Reform Amendment Act (No. 13 of 2013). The Communal Land Reform Act provide for the allocation of rights in respect of communal land to establish Communal Land Boards to provide for the powers of Chiefs and Traditional Authorities and boards in relation to communal land and to make provision for incidental matters. Consent and access to land for the proposed project should be requested from the relevant traditional authority through the Regional Council and Regional Communal Land Boards. Written request for consent shall be send through the Office of Governors for Kavango West and East Regions.</p>	<p>Consent should be obtained from the Traditional Authorities, Communal Boards, Chiefs, Kings, Queens etc. involved.</p>
Public and Environmental Health Act	<p>The Public and Environmental Health Act (No. 1 of 2015) provides with respect to matters of public health in Namibia. The objects of this Act are to: (a) promote public health and wellbeing; (b) prevent injuries, diseases and disabilities; (c) protect individuals and</p>	<p>The proponent and contractor should adhere to the Public and Environmental Health Act.</p>

	communities from public health risks; (d) encourage community participation in order to create a healthy environment; and (e) provide for early detection of diseases and public health risks.	
Coronavirus (Covid-19) Pandemic	The current global Coronavirus (Covid-19) pandemic and the associated State of Emergency and health restrictions globally may result in some delays and logistic disruptions. The pandemic might have an impact on obtaining equipment, specialist workforce mobilisation and implementation of the project. The health restrictions may have an impact on campsite set-up, traveling of personal/workers and building of the infrastructure. The proponent, contractor and subcontractors should adhere to all the international, regional and local Covid-19 health restrictions and protocols.	The proponent, contractor and workforce should adhere to the restrictions and regulations.
National Heritage Act (No. 27 of 2004)	All protected heritage resources discovered need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before it may be relocated. This should be applied from the NHC.	The National Heritage Council should be consulted when required.
National Monuments Act of Namibia (No. 28 of 1969) as amended until 1979	No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia: (a) any meteorite or fossil; or (b) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by any people who inhabited or visited Namibia before the year 1900 AD; or (c) any implement, ornament or structure known or commonly believed to have been used as a mace, used or erected by people referred to in paragraph; or	The proposed site for development is not within any known monument site both movable or immovable as specified in the Act, however in such an instance that any material or sites or archeologic importance are identified, it will be the responsibility of the developer to take the required route and notify the relevant commission.

	<p>(d) the anthropological or archaeological contents of graves, caves, rock shelters, middens, shell mounds or other sites used by such people; or</p> <p>(e) any other archaeological or palaeontological finds, material or object; except under the authority of and in accordance with a permit issued under this section.</p>	
Public Health Act (No. 36 of 1919)	Under this act, in section 119: “No person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”	The proponent will ensure that all legal requirements of the project in relation to protection of the health of their employees and surrounding residents is protected and will be included in the EMP. Relevant protective equipment shall be provided for employees in construction. The development shall follow requirements and specifications in relation to water supply and sewerage handling and solid waste management so as not to threaten public health of future residents on this piece of land.
Soil Conservation Act (No. 76 of 1969)	The objectives of this Act are to: Make provisions for the combating and prevention of soil erosion; Promote the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic;	Only the area required for the operations should be cleared from vegetation to ensure the minimum impact on the soil through clearance for construction.
Air Quality Act (NO. 39 of 2004)	The Air Quality Act (No. 39 of 2004) intends to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.	The proponent and contractor should adhere to the Air Quality Act.
Traditional Authorities Act (No. 17 of 1995)	The Traditional Authorities Act (No. 17 of 1995) provide for the establishment of traditional authorities, the designation and recognition of traditional leaders; to	Traditional Authorities should be consulted when required.

	define their functions, duties and powers; and to provide for matters incidental thereto.	
Vision 2030 and National Development Plans	Namibia's overall development ambitions are articulated in the Nation's Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. Currently the Government has so far launched a 4th NDP which pursues three overarching goals for the Namibian nation: high and sustained economic growth; increased income equality; and employment creation.	The proposed project is an important element in employment creation.

CONCLUSION AND IMPACT

Green Earth Environmental Consultants believe the above administrative, legal and policy requirements which specifically guide and governs the creation of a new disease-free compartment will be followed and complied with in the planning, implementation and operations of the activity.

A flowchart indicating the entire EIA process is shown in the *Figure* below:

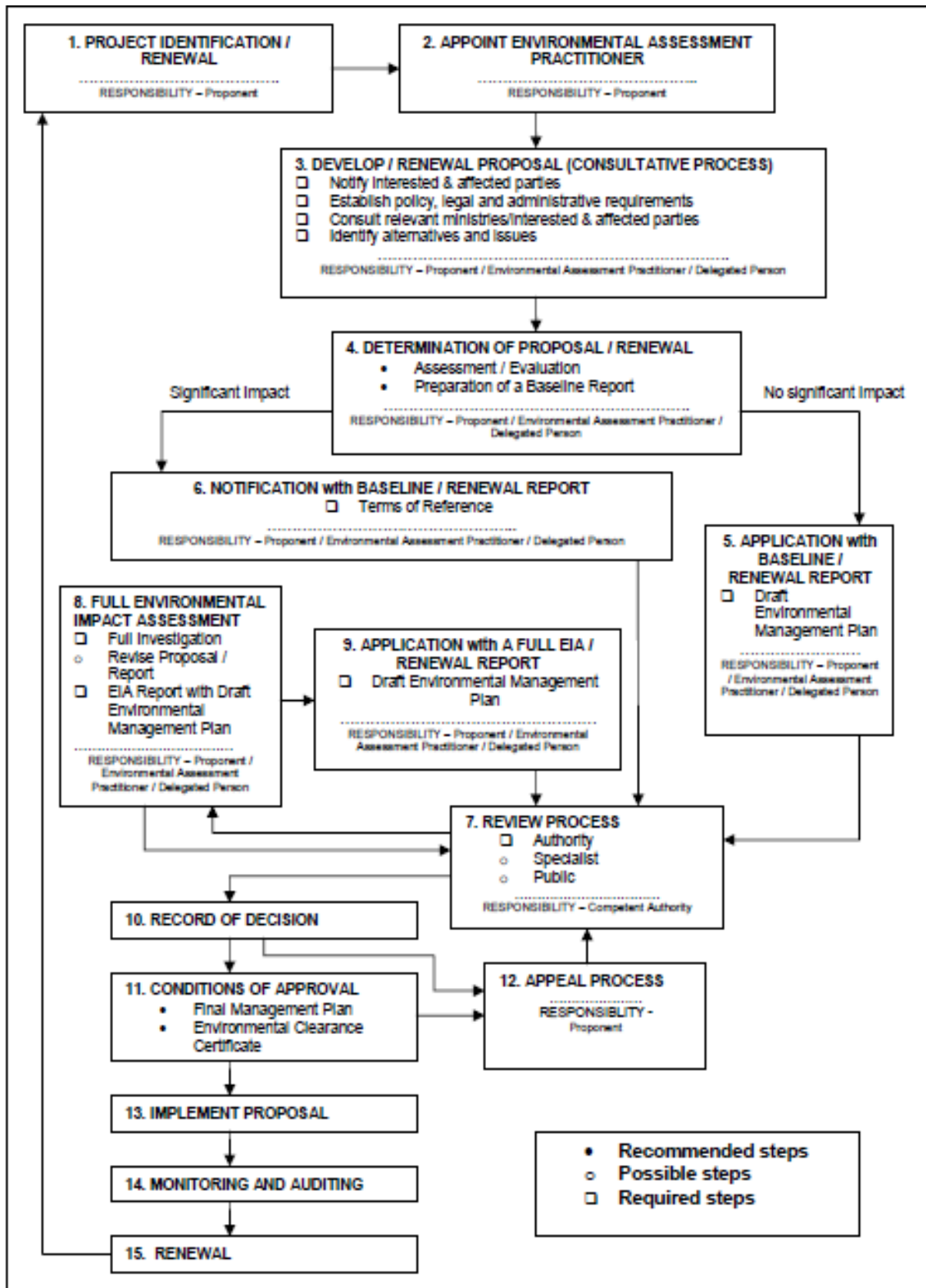


Figure 28: Flowchart of the assessment Process

11. AFFECTED NATURAL AND SOCIAL ENVIRONMENT

11.1. CLIMATE

The project area is located in the north central part of Namibia with daytime warm to hot temperatures throughout the year, while nights are mild to cool. The mean annual rainfall is highly variable between 400 and 600mm per year. The distribution of rainfall is extremely seasonal with almost all the rain falling in summer – from October to April with mean annual gross evaporation of 2600-2800mm.

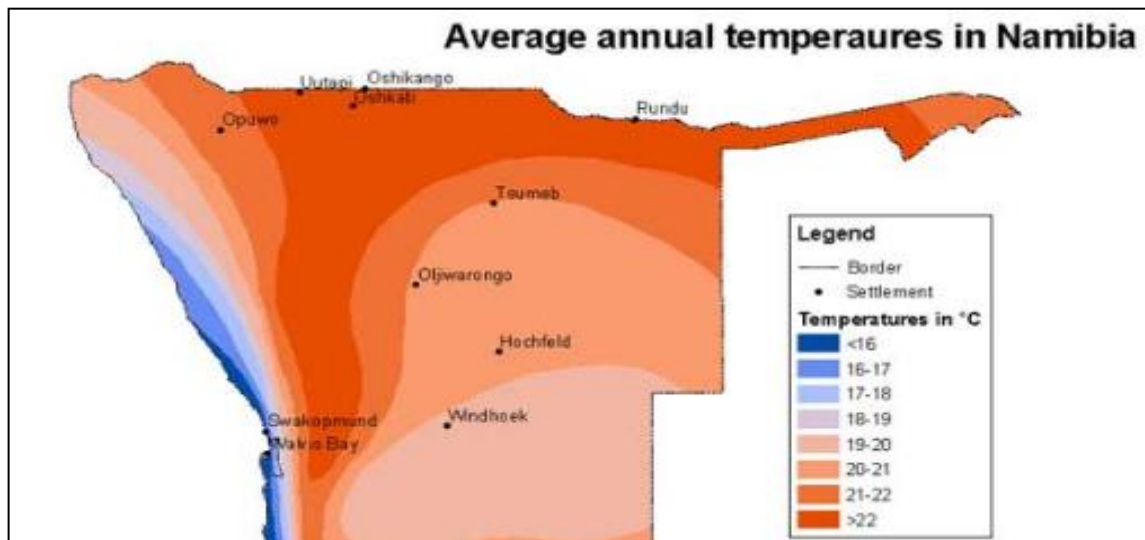


Figure 29: Average temperatures (Atlas of Namibia Project, 2002)

CONCLUSION AND IMPACT

The alignment and construction of the VCF will not have an impact on the climate.

11.2. GEOLOGY, SOILS AND GEOHYDROLOGY

The surface geology of the area consists of formations of mainly the Kalahari Group which has a thickness of up to 30m in the study area. Within the Kalahari Group the following six lithological classifications are recognized: Duricrusts, Kalahari sand, Alluvium and lacustrine deposits, Sandstone, Marl, Basal conglomerate and gravel. The Damara Supergroup and Gariep Complex and Damara Igneous Province and Oldest Rocks are also present the study area.

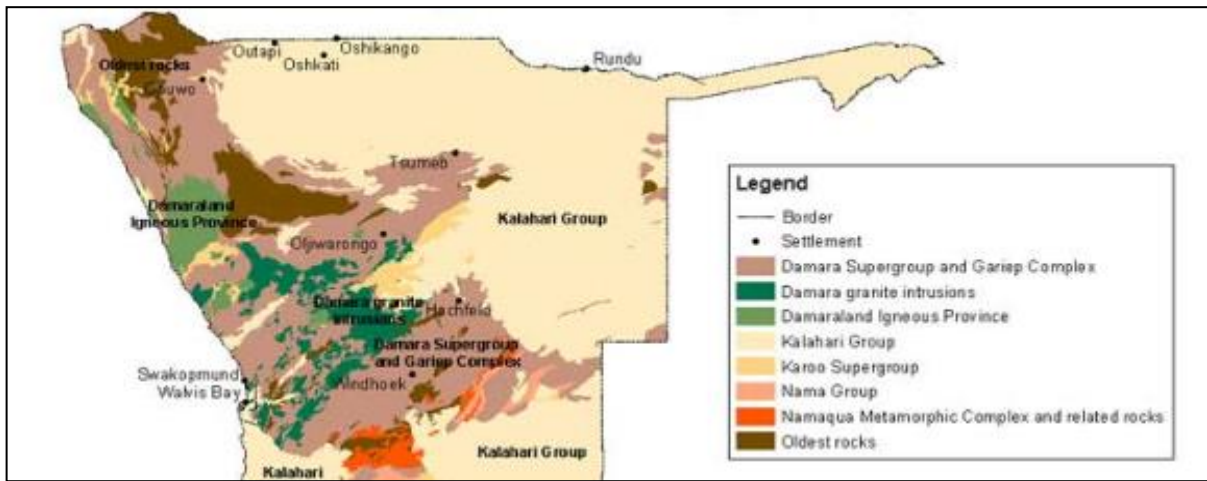


Figure 30: Geology of Namibia (Atlas of Namibia Project, 2002)

Surficial Kalahari sand covers almost the entire land surface. These lithologies comprise of fine to medium grained quartz sand, off-white in colour and typically clay-free in the upper 5m. These aeolian sands represent reworked Kalahari sediments. Though red sands occur, much of the surface sand in the study area is leached of any iron staining.

The transition from the so-called Kalahari sand to the older, underlying sandstone is often not clear, but seems to be gradational. Below the surficial horizon, similar sands are found, but often with varying clay content that may reach significant (>10%) proportions.

The Kalkrand Formation of the Karoo Supergroup is expected to underlie the Kalahari Group. Groundwater flow would be mostly through primary porosity but flow along fractures, faults and other geological structure present within the formations might take place where consolidated layers are present.

CONCLUSION AND IMPACT

The construction and alignment of the VCF will not impact on the geology, soils and geohydrology of the area. The surface drainage canals/areas will be kept open in order that water can flow through or under the fence and the road to be constructed for the inspection and maintenance of the VCF.

11.3. BIODIVERSITY AND VEGETATION

The project area is located in the Tree and Scrub Savanna Biome which is characterized by woodland vegetation structure type with extremely high green vegetation biomass.

A literature review was undertaken to determine the actual as well as the potential fauna and flora associated with the Tree and Scrub Savanna Biome of the site. This was followed up by a field study between November 2019 and July 2020 to determine the impact of the construction of the proposed cordon fence on the bio-physical environment.

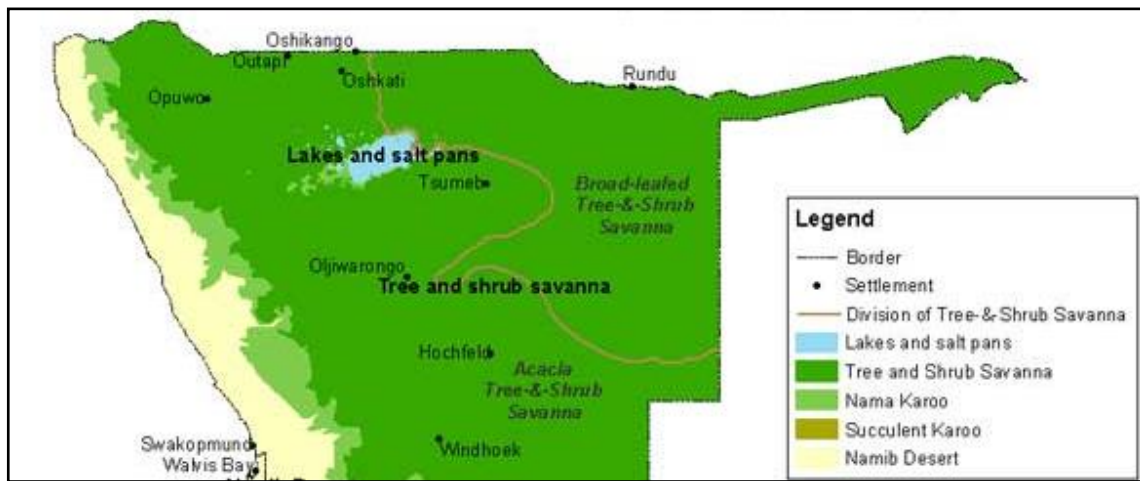


Figure 31: Biomes in Namibia (Atlas of Namibia, 2002)

The vegetation structure is classified as broadleaved woodlands with the North-Eastern Kalahari Woodland the dominated vegetation type (Mendelsohn et al. 2002). The general area is regarded as 'medium' in overall (all terrestrial species) diversity (Mendelsohn et al. 2002). Overall terrestrial endemism – all species - in the area on the other hand is 'low'.

The overall diversity and abundance of large herbivorous mammals is viewed as 'average' with oryx, kudu, elephant and giraffe dominant especially in areas bordering the National Parks while the overall diversity and density of large carnivorous mammals (large predators) is determined as 'average' with 1 – 5 species expected – e.g. leopard, brown hyena, spotted hyena, cheetah and wild dog (Mendelsohn et al. 2002)

The most important species from the general area are those classified as rare (*Nycteris hispida*, *Kerivoula argentata*, *Kervioula lanosa*, *Mastomys shortridgei*, *Civittictis civetta*, *Paracynictis selousi*) and endangered (*Lycaon pictus*, *Lutra maculicollis*, *Equus (burchellii) quagga*) under Namibian legislation and those classified by IUCN (2020) as endangered (*Lycaon pictus*), vulnerable (*Loxodonta africana*, *Smutsia (Manis) temminckii*, *Lycaon pictus*, *Acinonyx jubatis*, *Panthera pardus*, *Panthera leo*, *Hippopotamus amphibious*, *Giraffa camelopardalis*) and near threatened (*Hipposideros vittatus*).

Loxodonta africana (the elephant), *Giraffa camelopardalis* (the giraffe) and *Lycaon pictus* (the African wild dog) will be affected by the proposed VCF as the fence will restrict their movement.

It is estimated that at least 67 species of reptile, 32 amphibian, 166 mammal and 210 bird species (breeding residents) are known or expected to occur in the Kavango East and West Regions of the project area.

The population of the most important amphibian species of the area, *Pyxicephalus adspersus* (the giant bullfrog) is decreasing as it is consumed as food by locals. Of the most important reptile species, 2 are viewed as endemic (*Ichnotropis grandiceps* and *Lygodactylus bradfieldi*), 3 species are classified as rare (*Lycophidion multimaculatum*, *Psammophis jallae*, *Causis rhombeatus*) and 6 species are classified as vulnerable

(*Stigmochelys pardalis*, *Psammobates oculiferus*, *Kinixys spekii*, *Phyton nantalensis*, *Varanus albigularis*, *Varanus niloticus*) in the area (IUCN 2020).

The most important bird species are those classified as endangered (hooded vulture, white-backed vulture, tawny eagle, martial eagle, bateleur, southern ground hornbill), the species classified as vulnerable (secretary bird, white-headed vulture, lappet-faced vulture) and the species classified as near threatened (marabou stork, peregrine falcon, kori bastard) for Namibia (Simmons et al. 2015). The IUCN (2020) specified the following species as critically endangered (hooded vulture, white-headed vulture, white backed vulture), as endangered (lappet-faced vulture), as vulnerable (secretary bird, tawny eagle, martial eagle, southern ground hornbill) and as near threatened (bateleur, kori bustard).

A large variety of deciduous trees are found in the Savanna and Woodlands (Northern Kalahari area) vegetation type. The grasses are usually hard and unpalatable in this area with *Antheophora pubescens*, *Brachiaria nigropedata* and *Schmidtia pappophoroides* viewed as climax grasses in the open savanna areas (Giess, 1971)

The general area has a 'medium' plant diversity of between 300-399 species although the area along the Okavango River to the north has a higher diversity (400-499) species. The endemism is viewed as 'low' in the area with no species viewed as endemic (Mendelsohn et al. 2002)

The most important species expected to occur in the general area are *Baikiaea plurijuga* (Protected), *Burkea africana* (Protected), *Guibourtia coleosperma* (Protected) *Dalium engleranum*, (Protected) *Philenoptera violacea* (Protected) *Pterocarpus angolensis*, (Protected) *Schinziophyton rautanenii* (Protected) *Sclerocarya birrea* (Protected) and various *Strychnos species* (Protected).

The project site is showing evidence of some human inference namely informal tracks are present and vegetation was cleared on some areas of the site and a few gravel roads are present.

CONCLUSION AND IMPACT

The area along which the VCF will be aligned and constructed must be cleared to provide space for the fence (20 wide) and the road to be constructed to be used for the inspection and maintenance of the fence. Permits must be obtained if it is required to remove one of these protected species to align and construct the fence.

The fence will restrict the movement of animals as it will be a dual fence. The outer fence will be 2.4m high to prevent animals from entering or exiting the compartment. The inner fence will be 1.5m high for stock proof to keep small stock away from the outer fence.

The fence will have a low impact on vegetation but a high impact on the movement animals.

11.4. ELEPHANT MIGRATION

The African elephant (*Loxodonta africana*) is one of the continent's most important flagship species and is of economic and ecological importance to the region. The KAZA TFCA has the largest contiguous population of elephants in Africa. Several dispersal routes have been documented, primarily for elephant but also for buffalo, zebra and other species (*Kavango Zambezi Transfrontier Conservation Area Master Integrated Development Plan, 2015 – 2020*). When elephants are observed in close proximity to the proposed operations, the Ministry of Environment, Forestry and Tourism should be informed. See below map showing the dispersal routes of wildlife:

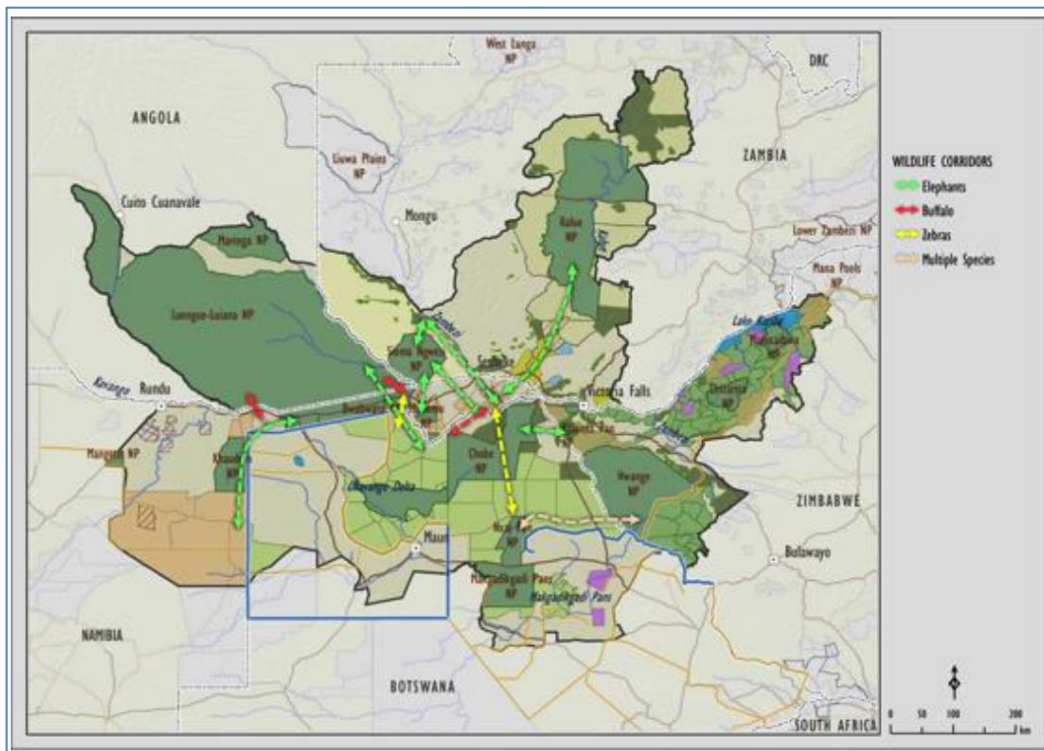


Figure 32: Documented wildlife dispersal routes in KAZA TFCA

CONCLUSION AND IMPACT

The migration of elephants will be highly affected by the proposed VCF. As the fence will be constructed to be elephant proof it will not be possible for elephants to migrate to areas outside the free zone. It is advised that the elephants in the affected area be relocated out of the proposed free zone.

11.5. SOCIAL-ECONOMIC COMPONENT

The proposed relocation of the Veterinary Cordon Fence will have a positive and negative impact on the socio-economic environment. Positive impacts associated with the

The construction impacts will be little if mitigated by the Environmental Management Plan. The community will also benefit from skills and technology transfer during construction and operations of the fence. The spending power of locals is likely to increase because of employment during the construction and operational phase.

- Human assets are limited among communities in the northern parts of the country because of low education levels, widespread health risks and general food insecurity (*Kavango Zambezi Transfrontier Conservation Area Master Integrated Development Plan, 2015 – 2020*).
- Financial assets are vested in livestock ownership, crop farming and the use of natural resources that are traded in informal markets.
- Livestock ownership and crop farming have declined in recent years because of disease and natural shocks.
- Tourism contributes little to household income.
- Traditional land use rights are the most common form of land ownership.
- People use local material to build their houses.
- Physical infrastructure for electricity, water and sanitation, health and administrative services is low across the region (*Kavango Zambezi Transfrontier Conservation Area Master Integrated Development Plan, 2015 – 2020*).
- The land use in the area is mainly communal/subsistence farming comprising of cattle, donkeys, seasonal crop farming, grass and wood/timber harvesting.
- Subsistence seasonal crop farming are carried out on widely spaced communal villages especially in close proximity to river channels, plains and topographically low areas.
- The villages are mostly centred around communal water points or near schools or rural clinics where water is available.

The project area is characterised by uneven population distribution with high levels of poverty. The interior of the project area is sparsely inhabited. The northernmost area especially along the Kavango River has a high population concentration (*National Planning Commission, 2012*). The general livelihood of the people in the two regions is derived from small-scale agro-pastoralism, supported by fishing along the Okavango River (*Mendelsohn, 2006*). Subsistence agriculture comprising of animal husbandry (cattle and goats), cultivation of millet and maize and timber logging are an integral part of the day to day survival of the rural population.

The socioeconomic setting of the proposed project area is characterised by:

- The population of Ncamangoro Constituency is 7043 which is 8.1% people of Kavango West Region. Mashare Constituency has 8885 people which is 11.2% of Kavango East population. Inter-census growth rates are 1.6% for Kavango East Region and 0.6% for Kavango West Region.
- Gender distribution is slightly inclined towards higher female shares. Mashare Constituency has a 52% female and 48% male population. Ncamangoro Constituency has a 51.9% female and 48.1% male population.
- The population density in both regions is above national average. 6.2 people per km² in Kavango East and 3.6 people per km² in Kavango West.

- Inter-census recorded that both Kavango Regions have a high proportion of persons with disabilities, particularly in Kavango West (7.6%). This is also the highest in Namibia. Kavango East recorded 6.0% of persons with disabilities.
- Ncamangoro Constituency falls within the Mbunza Traditional Authority and Mashare Constituency falls within Sambyu Traditional Authority.
- Rukavango-speaking people constitute the largest group in Kavango (79.4% of the population), and San constitute 0.4% of the region's population.
- Mashare Constituency's adult literacy rate stood at 72% and Ncamangoro recorded only 63.3% of people being literate. Literacy rates in both constituencies are not only below their respective regional average rate but are among the lowest in Namibia.
- Kavango East and West Regions has the largest population of unemployed youth aged 15 – 35 and the highest unemployment rates. Unemployment in Kavango East is 39.6% and in Kavango West stands at 36.4%. Unemployment in Ncamangoro Constituency stood at 52.2%. The unemployment rate for female is higher than for male. Kavango Regions have the highest incidence of poverty namely 53% of all population.
- Poverty is defined as the number of households that are unable to afford sufficient resources to satisfy their basic needs.
- The main employment industries in Kavango East and West is agriculture, forestry and fisheries. Around 45.95% of people employed in Kavango East and 80.04% in Kavango West are in the agriculture, forestry and fisheries sector.
- The Kavango West and East Regions are relatively well covered with a network of roads, unfortunately most of these roads are gravel or sandy roads that make travel difficult. Kavango East Region has one airport, at Rundu, that accommodates national flights. Several smaller airstrips cater for the tourism sector especially in the eastern part of the region.
- People living deep in the interior of both regions are far from social infrastructure thus access to education and medical treatment is difficult.
- The communities living in the northern part of the Kavango West and East Regions along the road from Nkurenkuru to Rundu and Rundu to Divundu road are relatively well connected to the national electricity grid.
- The remainder of the rural communities situated away from the river and the main road are connected mostly with off-grid facilities that utilise either solar power systems or diesel power systems.
- The Okavango River is the main source of water for the people living along the river and for their livestock, whereas villages away from the river depend on groundwater from boreholes supplied by MAWLF and in some cases seasonal pans. The urban areas namely settlements and towns are provided with water by NamWater.
- The main economic activities of both Kavango Regions are agriculture, mainly small-scale mahangu farming, aquaculture, timber harvesting, tourism and sand mining activities.
- There are a number of community forests within the Kavango East and West Regions. Two (2) community forests in Kavango West and ten (10) community forests in Kavango East. The proposed area is not located within the community forest areas. Illegal harvesting of timber in Kavango Regions is on the rise and attributed to the high demand for timber world-wide.

- Tourism is mainly in Kavango East Region. In Kavango West Region, tourism is limited and undeveloped. Tourism in the Kavango East Region is mostly focused on the eastern part of the region around Divundu, to some extent in the central part of the region next to the Kavango River and in Rundu. This is associated with the fact that most of the biodiversity, wildlife and scenic areas are found in the eastern part of the region. Kavango East Region falls within the Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA).

CONCLUSION AND IMPACT

Positive impacts associated with the proposed project will be in the form of additional job opportunities during construction of the fence, the gates and the supporting infrastructure as well as in the monitoring and management of the gates and fence. The farmers included in the compartment will gain access to the international market once the disease-free status is obtained. The community will also benefit from skills and technology transfer during construction and operations of the fence. The spending power of locals is likely to increase because of employment during the construction and operational phase.

The negative impact is that fences, especially a veterinary cordon fence, divide people or communities, increase travelling distances and costs, restricts movements through specific gates and along certain roads, and are in general causing inconvenience for people or communities affected by the fence. The proposed alignment of the fence has been determined to minimize the negative impact to the project and communities residing and moving in the area of the proposed compartment.

The positive impacts will however outweigh the negative impacts.

11.6. CULTURAL HERITAGE

The proposed project area is not known to have any historical significance prior to or after Independence in 1990. The specific area does not have any National Monuments and the specific site has no record of any cultural or historical importance or on-site resemblance of any nature. No graveyard or related article was found in the area. However, the Namibian National Heritage Act (No. 27 of 2004) provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects and to provide for incidental matters.

Under the National Heritage Act, conservation includes the following:

- The retention of the heritage significance of a place or object.
- The protection, maintenance, preservation, restoration, reconstruction or sustainable use of a place or object.

And under the National Heritage Act, heritage significance means:

- Aesthetic, archaeological, architectural, cultural, historical, scientific or social significance.

The Act also states that certain activities are prohibited namely a person may not remove or demolish, damage or despoil, develop or alter and excavate or export all or any part of a protected place (heritage place). A person may not relocate or disturb the position of a fixed object except if the Council issue a permit for such activity.

A person may apply to the Council for a permit to carry out works or activities in relation to a protected place or protected object. If the applicant is not the owner of the place or object, the consent of the owner is required. The activities should be carried out under the supervision of a person with appropriate professional qualifications or experience.

The term “heritage resource” is defined as places and objects of “cultural significance”, which is defined as “aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance” (*Winter & Baumann, 2005*).

Heritage specialist input is required for the following reasons:

- To identify heritage resources which might be affected
- To assess the significance of the resources
- To determine constraints to guide the development
- To evaluate the negative and positive impacts of the project
- To make recommendations for the management of these impacts

The types of heritage resources may include the following:

- Places, buildings, structures and equipment of cultural significance
- Places where traditions are associated with living heritage
- Historical settlements or townlands
- Landscapes and natural features of cultural significance
- Geological sites of scientific or cultural importance
- Archaeological sites
- Graves and burial ground
- Sites related to historical slavery (*Winter & Baumann, 2005*)

Heritage values may include intangible elements including ceremonies, rituals, feelings, sights and sounds. No construction or development associated with the proposed project took place before the site visit.

The following conditions were obtained from the National Heritage Council of Namibia:

- That any archaeological or paleontological object or meteorite found in the course of the activity must be recorded, conserved and dealt with as per the manual on chance find procedures of heritage resources.
- That Namibian citizens, especially members of the local community in and around the project area, be engaged in the activity for the purpose of identification of heritage resources in the project area.

CONCLUSION AND IMPACT

No heritage resources or graveyards were observed in the area where the VCF will be aligned and constructed. It is thus concluded that the impact of the new VCF will be low.

11.7. SENSE OF PLACE

The veterinary cordon fence which will enclose the proposed compartment will be aligned along the northern boundaries of the surveyed farms. These farms are already fenced. The southern boundary of the new compartment will be the existing VCF which will remain intact. The proposed compartment fence will not have a large/negative impact on the sense of place in the area. An untidy or badly managed site can detract from the ecological well-being and individuality of the area. Unnecessary disturbance to the surroundings could be caused by poorly planned or poorly managed operational activities. The project site should be kept neat and clean where possible. Vegetation should not be removed or harmed if not necessary since it covers topsoil which prevents erosion. Noise and dust should be limited in the construction phase because of the neighbouring residential and farming activities.

CONCLUSION AND IMPACT

The proposed VCF will be aligned directly along the existing boundary fences of the surveyed farms. The impact on the sense of place will be low.

11.8. HEALTH

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Proper Protective Equipment). A health and safety officer should be employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace. The introduction of external workers into the area is sometimes accompanied with criminal activities posing security risks for neighbours. However, the proponent will take certain measures to prevent any activity of this sort. The welfare and quality of life of the neighbours and workforce needs to be considered for the project to be a success on its environmental performance. Conversely, the process should not affect the overall health of persons related to the project including the neighbours.

CONCLUSION AND IMPACT

The proposed activity will have a low impact on the health of the affected community.

12. INCOMPLETE OR UNAVAILABLE INFORMATION

The number of people that will be employed on the site in the construction and operational phases will depend on the type and scope of the construction activities. Currently no exact figures are available.

13. IMPACT ASSESSMENT AND EVALUATION

The Environmental Impact Assessment sets out potential positive and negative environmental impacts associated with the project site. The following assessment methodology will be used to examine each impact identified, see *Table* below:

Table 2: Impact Evaluation Criterion (DEAT 2006)

Criteria	Rating (Severity)	
Impact Type	+	Positive
	O	No Impact
	-	Negative
Significance of impact being either	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)

Probability:	Duration:
5 – Definite/don't know	5 - Permanent
4 – Highly probable	4 – Long-term (impact ceases)
3 – Medium probability	3 – Medium term (5 – 15 years)
2 – Low probability	2 – Short-term (0 – 5 years)
1 – Improbable	1 - Immediate
0 - None	
Scale:	Magnitude:
5 – International	10 – Very high/don't know
4 – National	8 - High
3 – Regional	6 - Moderate
2 – Local	4 - Low

1 – Site only	2 - Minor
	0 - None

13.1. THE KEY IMPACTS

From the assessment, the following impacts are the key impacts to be mitigated:

13.1.1. SOCIO-ECONOMIC IMPACT

The feasibility of the project should be established. If the creation of the new compartment does not create the necessary returns in the form of higher prices to farmers, increased levies to authorities and additional forex from exporting meat to enable the Proponent to service the loan, the implementation of the project should be reconsidered. Thus, the creation of a new disease-free compartment should be accompanied by a diligent and detailed feasibility study incorporating the views of all stakeholders. The intended future “new” compartment should be affordable to the Proponent in terms of capital investment and maintenance by DVS – keeping in mind financial resources are limited.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Feasibility	O	5	4	6	3	M	M

13.1.2. FENCES DIVIDES PEOPLE

Fences divides people and communities. The alignment of the fence should be as such to avoid the division of communities as well as to cut them off from essential amenities like schools, clinics, social halls, water infrastructure as well as access to towns.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dividing People	-	3	3	6	4	M	M

13.1.3. TIME REQUIRED TO OBTAIN DISEASE-FREE STATUS

The time required to obtain disease-free status is still uncertain. The farmers to be included into the compartment should be made aware of the fact that the benefits derived from the creation of the new disease-free compartment will not come immediately. The communities but especially the farmers affected by the new compartment would like to see positive gains over the short term. If it takes too long to achieve the disease-free status and thus to realize the higher income for farmers, they might lose faith in the project which might lead to them opting out of the compartment or challenging the integrity of the

fence. Sufficient provision should be made for training of farmers in rangeland management, livestock control, accessibility to waterpoints, availability of marketing infrastructure, and supporting services – roads, etc. The compartment will restrict the number of livestock which could be accommodated in the area with no access to other grazing areas outside the compartment.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Time	-	4	3	6	3	M	M

13.1.4. COMPENSATION OF AFFECTED COMMUNITIES

The proposed fence will be aligned along the outside of the demarcated farms. These farms are already fenced in and normally not in proximity of communities. However, there is a section of about 300m where the proposed fence will be affecting the Old Cordon Community. This section stretches from the end of the north west corner of Mangetti park to the B1 tar road. This section passes in the middle of the households hence will require the compensation of the households for relocation. Further negotiations must take place between the community and the MAWLR to compensate and relocate the affected community as per the Guidelines of the resettlement of people.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Feasibility	O	5	4	6	3	M	M

13.1.5. COMMUNITY REJECTION AND CUTTING OF FENCE

Communities affected by the fence might not be happy with it and accept that they should guard over its integrity to ensure compliance with OIA and thus cut openings through it. Community interest is taken care of by distancing the fence-line from their livelihood and economic activities. Request by farmers and leadership to include few farms north of the proposed fence-line was considered.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Community	O	5	4	6	3	M	L

13.1.6. ILLEGAL MOVEMENT OF LIVESTOCK IN NEW ZONE

Movement of livestock inside the new zone should be undertaken in accordance with the regulations. The regulations should be enforced through inspection and protection by DVS and police staff. Education programmes should be given to the surrounding communities on rules and regulations of the zone. Involvement of local leadership including traditional authority in resolving issues related to new zone should take place.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Livestock	O	5	4	6	3	M	M

13.1.7. BIOPHYSICAL IMPACT

The integrity of the existing free zone should be protected. The introduction of the new compartment should be done in accordance with IOE Standards in order not to have a negative impact on the status of the free zone.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Biophysical	-	4	3	6	3	M	M

13.1.8. ELEPHANTS DESTROYING FENCE-LINE

Elephants are present in certain areas of the proposed new zone. Elephants will be affected by the fence as it will interfere with their traditional migration paths. Ideally the known populations in herds in the proposed zone should be relocated out of the zone area. Elephant proof fence is recommended to ensure the integrity of the fence. This includes the use of the best possible construction techniques and materials and the electrification of the fence to deter the elephants from crossing and destroying the fence.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Elephants	O	5	4	6	3	H	M

13.1.9. OVERSTOCKING OF THE ZONE

There is the danger that the new zone will be overstocked due to market incentives that will result in overgrazing of the zone. The MAWLR should continue to educate and support

farmers within a compartment on sustainable rangeland management. Stocking rate and carrying capacity to be adhered to.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Overstocking	O	5	4	6	3	M	M

13.1.10. OUTBREAK OF FMD WITHIN THE COMPARTMENT

Creating the zone will not ensure a 100% insurance of outbreaks of FMD. The new zone will be under surveillance until cleared by OIE when satisfied. DVS to implement best modality to prevent any outbreak of FMD. The zone will be closed off if any FMD case is identified within the zone. This will not affect the current FMD free zone south of the current VCF since this new zone will be north of the current VCF. The current VCF will remain intact until cleared by OIE. If a FMD case is identified within the zone, the zone will be closed off and all livestock will be vaccinated against FMD. The observation will continue until considered cleared. Thus far Mangetti block never had a record of FMD outbreak.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
FMD	O	5	4	6	3	M	L

The impacts on the receiving environment are discussed in the paragraphs below:

13.2. IMPACTS DURING CONSTRUCTION

Some of the impacts that the new compartment's veterinary cordon fence will have on the environment includes: water will be used for the construction and operation activities, electricity will be used, a temporary sewer system will be constructed and wastewater will be produced on the site that will have to be handled.

13.2.1. WATER USAGE

Water is a scarce resource in Namibia and therefore water usage should be monitored and limited in order to prevent unnecessary wastage. The proposed project might make use of water in its construction and operational phase.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Water	-	2	2	4	2	L	L

13.2.2. ECOLOGICAL IMPACTS

The compartment fence will be constructed in a disturbed natural area which is home to little vegetation. Therefore, the impact on fauna and flora will be minimal. Disturbance of areas outside the designated working zone is not allowed.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology	-	1	1	2	1	L	L

13.2.3. DUST POLLUTION AND AIR QUALITY

Dust generated during the transportation of building materials; construction and installation of bulk services, and problems thereof are expected to be low. Dust is expected to be worse during the winter months when strong winds occur. Release of various particulates from the site during the construction phase and exhaust fumes from vehicles and machinery related to the construction of bulk services are also expected to take place. Dust is regarded as a nuisance as it reduces visibility, affects the human health and retards plant growth. It is recommended that regular dust suppression be included in the construction activities, when dust becomes an issue.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	4	3	M	L

13.2.4. NOISE IMPACT

An increase of ambient noise levels at the proposed site/fence is expected due to the construction and operation activities. Noise pollution due to heavy-duty equipment and machinery might be generated.

Ensure all mufflers on vehicles are in full operational order; and any audio equipment should not be played at levels considered intrusive by others. The construction staff should be equipped with ear protection equipment.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Noise	-	2	2	4	2	M	L

13.2.5. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and general public are of great importance. Workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Proper Protective Equipment). A health and safety officer should be employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace.

Safety issues could arise from the earthmoving equipment and tools that will be used on site during the construction phase. This increases the possibility of injuries and the contractor must ensure that all staff members are made aware of the potential risks of injuries on site. The presence of equipment lying around on site may also encourage criminal activities (theft).

Sensitize operators of earthmoving equipment and tools to switch off engines of vehicles or machinery not being used. The contractor is advised to ensure that the team is equipped with first aid kits and that they are available on site, at all times. Workers should be equipped with adequate personal protective gear and properly trained in first aid and safety awareness.

No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises. Proper barricading and/or fencing around the site especially trenches for pipes and drains should be erected to avoid entrance of animals and/or unauthorized persons. Safety regulatory signs should be placed at strategic locations to ensure awareness. Adequate lighting within and around the construction locations should be erected, when visibility becomes an issue.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

13.2.6. CONTAMINATION OF GROUNDWATER

Care must be taken to avoid contamination of soil and groundwater. Use drip trays when doing maintenance on machinery. Maintenance should be done on dedicated areas with linings or concrete flooring. The risk can be lowered further through proper training of staff. All spills must be cleaned up immediately. Excavations should be backfilled and sealed with appropriate material, if it is not to be used further.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater	-	2	2	4	2	M	L

13.2.7. SEDIMENTATION AND EROSION

The area/project site is sparsely covered by vegetation. The proposed construction and operational activities will not increase the number of impermeable surfaces. The amount of storm water during rainfall events could increase erosion. Proper storm water management measures should be implemented.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Erosion and Sedimentation	-	1	1	2	1	M	L

13.2.8. GENERATION OF WASTE

This can be in the form of rubble, cement bags, pipe and electrical wire cuttings. The waste should be gathered and stored in enclosed containers to prevent it from being blown away by the wind. Contaminated soil due to oil leakages, lubricants and grease from the construction equipment and machinery may also be generated during the construction phase.

The oil leakages, lubricants and grease must be addressed. Contaminated soil must be removed and disposed of at a hazardous waste landfill. The contractor must provide containers on-site, to store any hazardous waste produced. Regular inspection and housekeeping procedure monitoring should be maintained by the contractor.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste	-	2	2	4	2	M	L

13.2.9. CONTAMINATION OF SURFACE WATER

Contamination of surface water might occur through oil leakages, lubricants and grease from the equipment and machinery during the installation, construction and maintenance of bulk services at the site.

Machinery should not be serviced at the construction site to avoid spills. All spills should be cleaned up as soon as possible. Hydrocarbon contaminated clothing or equipment should not be washed within 25m of any surface water body.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Surface water	-VE	2	2	4	2	M	L

13.2.10. TRAFFIC AND ROAD SAFETY

All drivers of delivery vehicles and construction machinery should have the necessary driver's licenses and documents to operate these machines. Speed limit warning signs must be erected to minimise accidents. Heavy-duty vehicles and machinery must be tagged with reflective signs or tapes to maximize visibility and avoid accidents.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Traffic	-	2	2	4	2	M	L

13.2.11. FIRES AND EXPLOSIONS

There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	2	4	2	M	L

13.2.12. SENSE OF PLACE

The placement, design and construction of the proposed infrastructure should be as such as to have the least possible impact on the natural environment. The proposed activities will not have a large/negative impact on the sense of place in the area since it will be constructed in a manner that will not affect the neighbouring land and it will not be visually unpleasing.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Nuisance Pollution	-	1	2	2	2	L	L

13.3. IMPACTS DURING THE OPERATIONAL PHASE

13.3.1. ECOLOGICAL IMPACTS

Staff and visitors should only make use of walkways and existing roads to minimise the impact on vegetation. Minimise the area of disturbance by restricting movement to the designated working areas during maintenance.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology Impacts	-	2	2	4	2	L	L

13.3.2. DUST POLLUTION AND AIR QUALITY

Vehicles transporting goods and staff will contribute to the release of hydrocarbon vapours, carbon monoxide and sulphur oxides into the air. Possible release of sewer odour, due to sewer system failure or maintenance might also occur. All maintenance of bulk services and infrastructure at the project site has to be designed to enable environmental protection.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	4	3	M	L

13.3.3. CONTAMINATION OF GROUNDWATER

Spillages might also occur during maintenance. This could have impacts on groundwater especially in cases of large sewer spills. Proper containment should be used in cases of sewerage system maintenance. Oil and chemical spillages may have a health impact on groundwater users. Potential impact on the natural environment from possible polluted groundwater also exists.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater contamination	-	2	2	4	2	L	L

13.3.4. GENERATION OF WASTE

Household waste from the activities at the site and from the staff working at the site will be generated. The waste will be collected, sorted to be recycled and stored in on site for transportation and disposal at an approved landfill site.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste Generation	-	1	2	2	2	M	L

13.3.5. FAILURE IN RETICULATION PIPELINES

There may be a potential release of sewage, stormwater or water into the environment due to pipeline/system failure. As a result, the spillage could be released into the environment and could potentially be a health hazard to surface and groundwater. Proper reticulation pipelines and drainage systems should be installed. Regular bulk services infrastructure and system inspection should be conducted.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Failure of Reticulation Pipeline	-	2	2	4	2	M	L

13.3.6. FIRES AND EXPLOSIONS

Food will be prepared on gas fired stoves. There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and they are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	2	4	2	M	L

13.3.7. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Proper Protective Equipment). No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

13.4.CUMULATIVE IMPACTS

These are impacts on the environment, which results from the incremental impacts of the construction and operation of the veterinary cordon fence when added to other past, present, and reasonably foreseeable future actions regardless of what person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. In relation to an activity, it means the impact of an activity that in it may not become significant when added to the existing and potential impacts resulting from similar or diverse activities or undertakings in the area.

Possible cumulative impacts associated with the proposed construction include, sewer damages/maintenance, uncontrolled traffic and destruction of the vegetation or the environment. These impacts could become significant especially if it is not properly supervised and controlled. This could collectively impact on the environmental conditions in the area. Cumulative impacts could occur in both the operational and the construction phase.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Cumulative Impacts	-	2	3	4	2	L	L

14. CONCLUSION

In line with the Environmental Management Act (No 7 of 2007), *Green Earth Environmental Consultants* have been appointed to conduct an Environmental Impact Assessment for the creation of a new Free Zone in the Northern Communal Areas. The proposed activities will not have a negative impact on the surrounding land and the environment. It is believed that the proposed creation of a new disease-free zone can largely benefit the economic needs of the area.

Negative impacts that can be associated with construction in the area are most likely to include: production of solid and liquid waste, dust emissions, atmospheric emissions, noise pollution, movement of soils, increased wastewater generation and the disruption of groundwater from the foundation or other structures. The negative environmental impacts that may be visible in the operational phase of the project include: increases in solid waste generation for example food and plastics, etc., increased stress on waste disposal facilities, increase in water consumption and waste water generation, can result in an increase in traffic on the nearby roads and there can be an impact on the occupational health and safety of workers. However, this project is believed to be an asset to this area. Facilities and products will be made available for which there is a need.

After assessing all information available on this project, *Green Earth Environmental Consultants* believe that the creation of a new free zone is required.

15. RECOMMENDATION

It is therefore recommended that the Ministry of Environment, Forestry and Tourism through the Environmental Commissioner support and approve the Environmental Clearance for the creation of a new Free Zone in the Northern Communal Areas and for the following listed activities:

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

1. *The construction of facilities for -*
 - (a) *the generation of electricity.*
 - (b) *the transmission and supply of electricity.*

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- 2.1 *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- 2.3 *The import, processing, use and recycling, temporary storage, transit or export of waste.*

FORESTRY ACTIVITIES

4. *The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act (No. 12 of 2001) or any other law.*

LAND USE AND DEVELOPMENT ACTIVITIES

5.3 *Construction of veterinary protected area or game proof and international boundary fences.*

WATER RESOURCE DEVELOPMENTS

8.1 *The abstraction of ground or surface water for industrial or commercial purposes.*

8.2 *The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.*

8.6 *Construction of industrial and domestic wastewater treatment plants and related pipeline systems.*

INFRASTRUCTURE

10.1 *The construction of public roads.*

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Curriculum Vitae of Charlie Du Toit:

1. **Position:** Environmental Practitioner
2. **Name/Surname:** Charl du Toit
3. **Date of Birth:** 29 October 1960
4. **Nationality:** Namibian

5. **Education:**

Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	Hons B (B + A) in Business Administration and Management		
Date Obtained	1985-1987		
Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	BSc Agric Hons (Chemistry, Agronomy and Soil Science)		
Date Obtained	1979-1982		
Name of Institution	Boland Agricultural High School, Paarl, South Africa		
Degree/Qualification	Grade 12		
Date Obtained	1974-1978		

6. **Membership of Professional Association:** EAPAN Member (Membership Number: 112)

7. **Languages:**

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

<u>From</u>	<u>To</u>	<u>Employer</u>	<u>Position(s) held</u>
2009	Present	Green Earth Environmental Consultants	Environmental Practitioner
2005	2008	Elmarie Du Toit Town Planning Consultants	Manager
2003	2005	Pupkewitz Megabuild	General Manager
1995	2003	Agra Cooperative Limited	Manager Trade

1989	1995	Namibia Development Corporation	Chief Agricultural Consultant
1985	1988	Ministry of Agriculture	Agricultural Researcher

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



Charl du Toit

Curriculum Vitae of Carien van der Walt

1. **Position:** Environmental Consultant
2. **Name/Surname:** Carien van der Walt
3. **Date of Birth:** 6 August 1990
4. **Nationality:** Namibian

5. Education:

Institution	Degree/Diploma	Years
University of Stellenbosch	B.A. (Degree) Environment and Development	2009 to 2011
University of South Africa	B.A. (Honours) Environmental Management	2012 to 2013

6. Membership of Professional Associations:

EAPAN Member (Membership Number: 113)

7. Languages:

Language	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. Employment Record:

From	To	Employer	Positions Held
07/2013	Present	Green Earth Environmental Consultants	Environmental Consultant
06/2012	03/2013	Enviro Management Consultants Namibia	Environmental Consultant
12/2011	05/2012	Green Earth Environmental Consultants	Environmental Consultant

9. Detailed Tasks Assigned:

Conducting the Environmental Impact Assessment, Environmental Management Plan, Public Participation, Environmental Compliance and Environmental Control Officer

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engage.

Carien van der Walt