# Environmental Impact Assessment for the establishing a Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029

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# **Document Status**

Proponent	Farm Voorwaarts No. 1029			
Title of the proposed Activity	Environmental Impact Assessment for the establishing a Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029			
Activity Type	Environmental Impact Assessment Study			
Location of the Activity	Farm Voorwaarts No. 1029, Mururani Area, Grootfontein District, Otjozondjupa Region			
	GPS Coordinates at the Mine: $18^{\circ}51'36.62''$ S and $18^{\circ}50'57.78''$ E			
Competent Authority	Environmental Commission (Ministry of Environment and Tourism)			
EIA Consultant	KPM Trading CC t/a KPM Environmental Consulting Contact person: Mr. Festus Kapembe Tel. 0811473344 E-mail: kpm.consulting@iway.na			

#### **PURPOSE OF THIS DOCUMENT**

This document, Scoping Report and Environmental Management Plan (EMP) for the establishment of a charcoal, wood, fencing poles and furniture production at Farm Voorwaarts No. 1029 presents the findings of the impact assessment with respect to issues and concerns raised during the scoping phase of the EIA. The findings are presented in the following reports:

- Scoping Report (this report), with several appendices, including the issues and response report (indicating to stakeholders where their issues have been captured)
- Environmental Management Plan (annexure A of this report).

#### Appreciation for participation by stakeholders

Stakeholders were invited to partake in the consultation process. Various media platforms were used to engage the public on the proposed activities as per the Background Information Document (BID). Newspaper advertisements were placed in two local daily English newspapers (New Era Newspaper dated 06 August 2020 and the Namibian Newspaper dated 07 August 2020) – see copies attached on notes to the meeting as annexure C. In addition, radio announcements were made via the local languages (NBC Oshiwambo, Rukwangari and OtjiHerero Radio Stations) inviting community members to a Public Consultation meeting that was held on 26 June 2020 at Mururani Gate and the second meeting at Farm Voorwaarts No. 1029. Social Media (Facebook) was also used to engage the stakeholders. Project Background Information Documents were available from the Mururani Gate on the B8 National Road between Grootfontein and Rundu as well as several copies were also availed at Mururani Camp and other local shopping outlets. The BID was also available from the KPM Offices (the consultant) in Windhoek on request via e-mail.

#### PUBLIC REVIEW OF THE SCOPING REPORT

A period of three weeks (from 29th of June to 17th July 2020) was dedicated to receiving comments and inputs from the public on the proposed charcoal, wood, fencing poles and furniture production at Farm Voorwaarts No. 1029. Copies of the BID were couriered to all registered Interested and or Affected Parties (I&APs) especially farm owners within the Mururani area and in Otjozondjupa Region. In addition, the availability of the draft Scoping Report was announced in the media as well as by way of letters addressed to registered key stakeholders.

#### **OPPORTUNITIES FOR PUBLIC REVIEW**

The following methods of public review of the Scoping Report were available:

- Completing the comment sheet enclosed with the reports;
- · Additional written submissions;
- Comment by email or telephone;
- Comment during the public participation meeting at Mururani and at Farm Voorwaarts No. 1029 (public meeting held on Friday, 26 June 2020 at 14h30 at Mururani Gate.

#### FINAL ENVIRONMENTAL IMPACT REPORT (EIR)

Comments received from stakeholders on the draft findings during the review period were assessed and are now included in this Scoping Report.

#### **ACRONYMS AND ABBREVIATIONS**

- BID Background Information Document
- ECO Environmental Control Officer
- EIA Environmental Impact Assessment
- EMP Environmental Management Plan
- EMS Environmental Management System
- I&AP Interested and Affected Party
- KPM KPM Environmental Consulting
- MAWLR Ministry of Agriculture, Water and Land Reform
- MEFT Ministry of Environment, Forestry and Tourism
- NGO Non-Governmental Organization
- WHTC Welwitchia Health Training Centre

#### **GLOSSARY OF TERMS**

**Assessment** - The process of collecting, organizing, analysing, interpreting and communicating information relevant to decision making.

**Competent authority** - means a body or person empowered under the local authority's actor a delegation made under the Pollution Prevention and Waste Management Bill to enforce the rule of law.

**Cumulative Impacts** - in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

**Evaluation** – means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgments in order to make a decision.

**Environment** - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".

**Environmental Impact Assessment (EIA)** - the process of assessment of the effects of a development on the environment.

**Environmental Management Plan (EMP)** - A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

**Interested and Affected Party (I&AP)** - any person, group of persons or organization interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate - The implementation of practical measures to reduce adverse impacts.

**Proponent (Applicant)** - Any person who has submitted or intends to apply for an authorization, as legislated by the National Environmental Assessment Policy, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

**Public** - Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of public, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

**Scoping Process** - the process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

**Significant effect/Impact** - means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

**Stakeholders** - A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term, therefore, includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (I&APs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

**Stakeholder engagement** - The process of engagement between stakeholders (the proponent, authorities and I&APs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can, therefore, be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term "public participation".

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# **Executive Summary**

#### 1. Introduction

This Scoping Report seeks to identify environmental issues associated with the establishment of a charcoal, wood, fencing poles and furniture production at Farm Voorwaarts No. 1029 at Mururani in Otjozondjupa Region. Issues identified through site visits and public participation are put forward in this report. These are further assessed and evaluated through a process developed as detailed in the Scoping Report.

#### 2. Activity Description and natural environment

Farm Voorwaarts No. 1029 is farming with both crops and livestock as well as some wildlife. The proponent intends to utilise a portion of the farm which is currently not used to turn it into an agricultural institution training agricultural technicians to serve the farming community in Otjozondjupa Region and Namibia at large. The proposed institution, which is the first of its kind in the Otjozondjupa Region, will cater for about 3000 students and the number is expected to gradually increase. The major focus of the proposed university is on agriculture, research and innovation. The proposed activity for the university which is already cleared by the Ministry of Environment, Forestry and Tourism (MEFT) will include the construction of the administration block, accommodation facilities, sports field, lecture halls (theatre) and a veterinary clinic /school. Road networks, powerlines and sewerage facilities will also form part of this development and further assessment may be required once the exact details of those amenities are finalized.

The clearing of the proposed site (which is already covered in the first application for Environmental Clearance Certificate) and which is already cleared, will generate a lot of useful wood materials. The proponent have thus decided to turn those by products into wood for both own use but also selling the excess to the local community and elsewhere in Namibian where wood is needed. The second option is to produce charcoal for commercial purpose also for sale in Namibia. The third opportunity is to produce fencing poles for own use around the fence for the proposed university, around the farm and also the remaining surplus for sale. The forth option is to turn the wood into furnitures for the university and also the surplus for sale to educational institutions i.e. schools etc.

In addition to the main buildings, the university also proposes to bring more amenities to the area such as shopping centres, fuel retail facility (service station) and automatic teller machine (ATM). These facilities will be beneficial to the larger Grootfontein District community as they will no longer have to travel long distances to either Grootfontein or to Rundu town to access the necessary services.

The proposed site is located on the North of Farm Voorwaarts on the left-hand side as one enters Mururani from Grootfontein area. The area is covered by thick vegetation largely populated by shrubs and bush encroachment. Below are some photos of the area depicting a virgin land which has not been altered by construction or related activities before.



Figure 1: Shows part of the proposed site which is largely covered by thick bush

Scoping Report for Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029

#### 3. Conclusions and Recommendations

The proposed activity has medium to low environmental impacts as per the assessment and identified impacts can be mitigated as per the proposed mitigation measures indicated on the Environmental Management Plan (EMP) accompanying this Report. It is recommended that the proposed activity be granted Environmental Clearance as the envisaged impacted can be mitigated through the proposed measures and also that should the project not be cleared, the construction of the agricultural institution which is already cleared will pose waste management challenge to the institution as they will need to dispose of some the plant products that will be coming from the clearing of land to make way for the buildings. It is also known that the positive impact of establishing a charcoal, wood, furniture and fencing poles far outweighs the negative impacts.

# **Background to the Activity**

#### 1. Introduction

The Proponent, Farm Voorwaarts No. 1029 indents to clear a portion of the farm to turn it into an agricultural training institution. The plans to commence with the construction of this institutions are underway and the necessary surveying of the land, impact assessment and clearance from MEFT have already been conducted and necessary clearance obtained.

The proposed institution, which is the first of its kind in the Otjozondjupa Region, will cater for about 3000 students and the number is expected to gradually increase. The major focus of the proposed university is on agriculture, research and innovation. The proposed activity will include the construction of the administration block, accommodation facilities, sports field, lecture halls (theatre) and a veterinary clinic /school. Road networks, powerlines and sewerage facilities will also form part of this development and further assessment may be required once the exact details of those amenities are finalized.

The construction activities are listed as some of the activities that cannot be undertaken without Environmental Clearance Certificate from the Environmental Commission in line with the Regulation No. 29 of 2012 (List of activities that may not be undertaken without Environmental Clearance Certificate) as well as per the Environmental Management Act No. 7 of 2007.

Although, much of the activities for the construction of the institution have already been cleared and an ECC already obtained, additional activities such as making of charcoal for commercial purpose, wood production, furniture production and production of fencing poles were not included in the initial application and are thus added on this Scoping Report.

Therefore, the Proponent cannot undertake these activities without environmental clearance certificate as per the EIA Regulations and Environmental Management Act No. 7 of 2007. KPM Environmental Consulting was thus appointed by Farm Voorwaarts No. 1029 to undertake the required assessment. The process of obtaining an environmental clearance certificate requires the services of a competent and experienced environmental assessment practitioner and Farm Voorwaarts No. 1029 was not aware of this during the initial application.

#### 2. The Environmental Assessment Practitioner

The proponent has contracted KPM Environmental Consulting as the Environmental Assessment Practitioner (EAP) to manage the assessment process. KPM Environmental Consulting is a Namibian company based in Windhoek with a broad-skills in impact assessment both social, environmental and economic impact of development projects. KPM Environmental Consulting (Lead) works with a number of specialists whose inputs have been incorporated into this report and where necessary an additional Specialist Report can be annexed to the main report to strengthen the outcome of the assessment and also to give the competent authority more information to enable them to decide whether the project can be authorised or not.

The entire consulting team, whose overall services have been utilized for this assignment, comprised of the following members:

Role	Organisation	Individual	Email
Project Manager & Lead EA Practitioner	KPM Environmental Consulting	Mr. F. Kapembe	kpm.consulting@iway.na
Social Science Specialist	Independent Consultant	Ms. M. T. Hangula	kpm.consulting@yahoo.com
Admin/Secretaria t & Stakeholders' Liaison Person	KPM Environmental Consulting	Ms. C. Indombo	kpm.consulting@yahoo.com

 Table 1: List of Consultant's Key Team Members

All the above KPM Environmental Consulting team members' and associates' CVs are contained in Annexure F and meet the general requirement for EAPs as indicated in section 4 (a) of the Environmental Impact Assessment Regulations. The team consists of project management skills; a range of technical skills and experience, and qualified environmental assessment practitioners.

KPM Environmental Consulting consultancy team as the EAP designated:

- a. Have knowledge of and experience in conducting assessments, including knowledge of the Environmental Management Act, the Environmental Impact Assessment Regulations and guidelines that have relevance to this proposed activity;
- b. Have performed the work relating to the application in an objective manner, even if this results in view and findings that may not favourable to the Proponent;
- c. Have complied with the Environmental Management Act, the Environmental Impact Assessment Regulations, guidelines and other applicable laws, and

- d. Have disclosed to the proponent, competent authority and the Environmental Commissioner all material information in its possession that reasonably has or may have the potential of influencing –
  - i. Any decision to be taken with respect to the application in terms of the Environmental Management
  - ii. Act, the Environmental Impact Assessment Regulations; or The objectivity of any report, plan or document prepared by the EAP in terms of the Act and its regulations.

### 3. Purpose and Scope of EIA and EMP

The aim of this EIA is to identify and assess the significance of impacts, and where appropriate to make recommendations that may then be used by the relevant authorities as conditions of approval and be incorporated into the Environmental Management System (EMS). The ultimate aim is to minimize the number of residual negative impacts of high significance during the construction of the proposed institution.

#### 4. Summary of the Proposed Activities

The Proponent intends to establish a charcoal, wood production, fencing material production and furniture production using materials that will be coming from clearing of the site to make way for construction.

The institution which will mainly focus on agriculture research and innovation is strategically located at the centre of Mururani area along the B8 national road network between Grootfontein and Rundu town. In addition to the academic part of the institution, the proponent also plans to introduce a veterinary clinic which will in addition to serving the farming community will also conduct research to find new ways of treating animals with various ailments. Currently, farmers have to travel long distance either to Grootfontein or to Rundu order to access veterinary services. Therefore, having one at Mururani will serve as an advantage for the farming community in Otjozondjupa and Kavango West Regions.

The institution will bring a lot of benefits to the area, with the proposed first intake of 3000 students, lecturers and other institutional workers, the population of Mururani area will improve significantly. It is proposed that as part of their social corporate responsibility, the institution intends to rehabilitate the local school in order to accommodate more learners for lecturers and institutional workers who will be migrating to the area. It is also envisaged that a medical facility i.e. clinic is foreseen to cater for the increasing population of Mururani.

Other essential services that will be introduced to the area are such service station, automatic teller machines (ATM), shopping centre and other relevant infrastructures. This development will enable the proclamation of Mururani area to be upgraded to a settlement by the Ministry of Urban and Rural Development.

The final design drawings are currently in the process of being finalized and thus could not be availed of this report. However, these could be availed as soon as they are finalized.

The proposed activity will involve the construction of the following buildings at the proposed site:

- Lecture Theatres
- Accommodation facilities for academic staff, institutional workers and students
- Library
- Veterinary Clinic
- Sickbays
- Parking lots
- Waste area

- Walkways
- Sports fields (football, volleyball, netball, basketball etc)
- Sewerage area

The entire area for the institution will be fenced off and therefore, there will not be any possibility of students poaching or stealing from nearby farms. Other control measures will also be put in place such us surveillance cameras to curb the possibility of such behaviours.

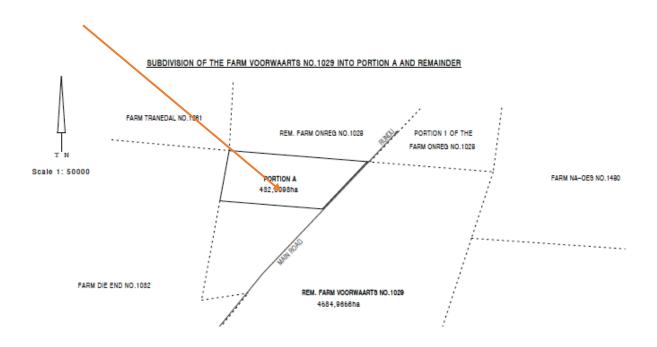


Figure 2: Map showing the location of the proposed institution

#### 5. Alternatives

The 'do nothing' alternative is the option not to utilise the wooden materials that are coming from clearing the site for construction of the university. This alternative is counterproductive as currently the proposed area is underutilised and there is not much happening except for some small stock grazing the area and also that should the Proponent not be authorised to turn these wooden materials into productive materials these wooden planks would add burden to the Proponent as far as waste management is concerned. The 'do nothing' option will not have a dent in the economy of the country as things will remain the same for years to come.

In addition, the 'do nothing' alternative is not consistent with the Vision 2030 and Namibian government's commitment of employment creation, poverty reduction and economic growth as highlighted in the fifth National Development Plan (NDP 5).

# **Regulatory Framework**

### 1. Introduction

Namibia has a number of legislations dealing with environmental issues. Environmental legislation determines the objectives guiding, and the strategies to be used in order to strengthen the respect for environmental values, considering the existing social, cultural and economic situation. The foundation for the Namibian environmental policy framework is Article 95 (I) of the Constitution. It stipulates that the state shall actively promote and maintain the welfare of the people by adopting policies which include the "maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefits of all Namibians (The Namibia Constitution).

The State is further committed to actively promote and maintain the environmental welfare of all Namibians by entrenching the principles of sound environmental management practice in the Namibian Constitution and formulating and institutionalizing policies that can realize the sustainable development objectives (Ruppel, 2013).

### 2. Environmental Legislation

To give effect to articles 91(c) and 95(l) of the Constitution of Namibia, general principles for sound management of the environment and natural resources in an integrated manner were formulated in Namibia's Environmental Assessment Policy of 1994. The Environmental Assessment and Management Act was approved in 2007 to give statutory effect to the Policy and gazetted on 27 December 2007 as the Environmental Management Act (Act No. 7 of 2007), Government Gazette No. 3966. Regulations for Environmental Impact Assessment, in terms of the Act, were published in January 2012. The Act defines "the environment" as including "the human environment that is the landscape and natural, cultural, historical, aesthetic and social heritage and values."

These policies and Acts, both promulgated and in draft form, were identified in this Scoping Report and the proposed institution and its cumulative activities i.e. the wood productions and others have been developed in compliance with these requirements of these frameworks. Table 1 provides a summary of the Namibian policies and laws and indicates how the requirements have been applied, or are still to be applied.

The process followed for this Scoping Report study is outlined in Figure 1 below.

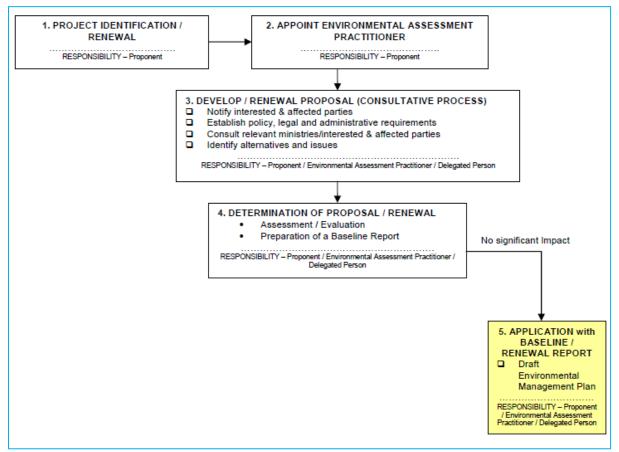


Figure 3: EIA scoping process as per the Environmental Management Act (7 of 2007)

As the organ of state responsible for the management and protection of its natural resources, MEFT is committed to pursuing these principles of environmental management.

The Act also provides for ensuring that there are opportunities for timeous participation of Interested and Affected Parties (I&APs) throughout the assessment process in matters affecting their lives.

#### 3. Environmental Impact Assessment Policy

Namibia's Environmental Assessment Policy recognizes that EIAs seek to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process. The term 'environment' is broadly interpreted to include biophysical, social, economic, cultural, historical and political components. The Policy defines the required steps for an EIA, the required contents of an EIA report, the need for post-implementation monitoring, and the system of appeals. All these aspects have since been taken up in the subsequent Environmental Management Act (EMA) and the accompanying Regulations, which were drafted in response to the Environmental Assessment Policy.

#### 4. Local Authorities Act

The Local Authority Act (23 of 1992) makes provisions for municipalities, towns and villages to make regulations and rules regarding the activities that may be conducted within the municipal, town or village jurisdiction. Incidents such as pollution, spillages or contamination may be investigated by the Health and Safety Officer at the Municipality, Town or Village Council and the offender may be fined an amount as per the rules and regulations of that Local Authority.

The Local Authorities at Grootfontein, Nkurenkuru and Rundu, have been informed about the proposed institution and also the recent proposal for charcoal, firewood, furniture and fencing poles manufacturing plant and are ready to accommodate some of the needs for the Farm Voorwaarts No. 1029 such waste management etc during the early stage of the operational stage.

#### 5. Soil Conservation Act

To consolidate and amend the law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources in the Republic and the territory of Namibia. Considering the proposed activity, care should be exercised to ensure that no contamination or pollution of soil through leakage or wind blowing of any materials that might not be good for the natural environment. Specific measures regarding these possible impacts will be proposed further in EMP.

#### 6. Hazardous Substance Ordinance (Ordinance No. 14 of 1974)

A substance is considered hazardous if it has one or more of the following hazardous properties i.e. explosive, flammable, oxidizes, corrosive or toxic to people. The proponent has not indicated what explosive materials that will be used for the academic purpose of for the veterinary clinic. The clearing of land and its cumulative activities will not involve any hazardous substance and during the clearing process, should there be any substance found, these would be handled with care to ensure that no injury or harm to any person, animal or natural environment is experienced. However, it is important to ensure that all activities that may involve hazardous substances are handled with care and in line with the provisions of this Ordinance.

#### 7. Atmospheric Pollution Prevention Ordinance of 1976

The Atmospheric Pollution Ordinance makes provision for the prevention of any activity that contributes to the pollution of the atmosphere. Provisions will be made in the EMP to direct staff responsible for waste management to ensure that all activities do not cause atmospheric pollution. The proposed charcoal manufacturing plant will be emitting smoke and this mitigation measure will be proposed in the EMP.

#### 8. Water Resources Management Act, 2004 (Act No. 24 of 2004)

The Water Resources Management Act provides for the management, development, protection, conservation and use of water resources throughout Namibia. Provisions have been made in the EMP to ensure that sea water is not contaminated with throughout the lifespan of the institution.

# **Baseline Description of the Environment and Project Setting**

#### 1. General

The Proponent intends to construct an institution of higher learning at Mururani area within the Grootfontein District in Otjozondjupa Region. The institution will enrol approximately 3000 students in year one and gradually increase the number of intakes in the following years. The Proponent has appointed KPM Environmental Consulting to conduct the Environmental Impact Assessment and to apply for an Environmental Clearance Certificate from the Environmental Commission.

The Proponent further intends to establish a charcoal, firewood, furniture and fencing poles manufacturing plant to utilise the wooden products that would be produced during the clearing of the site for construction of the university.

Currently, the proposed area is dominated by thick forest and has no noticeable development. The area is part of Farm Voorwaarts No. 1029 where the farm owners intend to turn p.

#### 6. Socio-economic Environment

The population of Mururani is sparsely distributed with the majority of people living on both commercial and communal areas. A mixture of people Kavango, Herero, Oshiwambo, and white farmers are the majority in the area who were seen around during the public meeting. There are limited employment opportunities in the area with most local people working as farm labourers.

Consultations were also made with civil servant such as Police Officers and Veterinary Officers from the Ministry of Agriculture, Water and Forestry who were found at the Mururani Gate. Other civil servant noted are teachers who are teaching at Mururani Combine School where the public meeting was held. It was noted that there is a high level of poverty among the local people especially those working as farm workers. There is no industry in the area and most of the residents survive on old age pensions and subsistence farming.

#### 7. Biophysical Environment

The area is generally dominated by flat areas with shrubs and grassland. There are widely dispersed indigenous trees which are locally known for various uses. It is recommended that the designing team should integrate indigenous trees with the design so that the institution does not have to completely start from scratch when it comes to biophysical designing of the area. Mururani area has a generally flat terrain falls from about 1200 m above the sea level to just below 1000 m in the eastern part of Kavango West area. The plains undulate from sculpting of the sand into long, low east-west oriented dunes that are rarely higher than 10 m above the adjacent valleys, and that are not conspicuous from ground level as they are low and covered in vegetation.

#### 8. Climate

Mururani area receives an annual average rainfall between 450 and 600 mm per year. This average rainfall is generally more in relation to the rest of the country. Therefore, making it favourably for agriculture and related activities.

#### 9. Geology of the area

The general geology of the area consists of dolerite intrusions that intersect the sedimentary rock of the Beaufort Formation. Along the B8 national road network, a number of metamorphic rocks have been observed which could have been brought there during the construction of the tarred road.

#### 10. Terrain forms and habitats

The terrain forms vary from one area to another. There are hilltops on some areas with others that are flat and dominated by grassland and some plantations. Savanna and shrubs have also been observed during the visits.

#### 11. The soil of the area

The type of soil found in the Mururani area varies from soil with high clay content in the middle to a sandy silty clay towards the road. From visual inspection, the possibility of underground water seems promising. This, however, needs to be confirmed by a hydrological assessment to ascertain the availability of groundwater in the area.

#### 12. Vegetation of the area

Most of the vegetation in the Mururani area is fairly homogeneous Kalahari woodland, comprised of broad-leafed, deciduous woodlands that vary according to topography and the nature of soils that support them. Also present in the Mururani area are larger trees such as kiaat (*Pterocarpus angolensis*), teak (*Baikaea plurijuga*), silver Terminalia (*Terminalia sericea*) and red seringa (*Burkea Africana*) constitute a valuable resource of timber that is used for furniture, construction, carvings and firewood. A number of species are valued for food, such as false mopane (*Guibourtia coleosperma*) – these are important resources for rural livelihoods. It was also found that the majority of people in the area depends on grasses in the woodlands which are harvested for thatching.

Vegetation of the area around Farm Voorwaarts No. 1029 comprises of natural mosaic grassland in the plain and at around the main form. There area is no scarce plant communities within the identified area or nearby. On both side of the B8 national road are large populations of green grass, which has been seriously overgrazed by livestock in the area.

#### 13. Animals (moths, butterflies, reptiles, birds and mammals) of the area

During the site visit, a number of small desert animals have been observed in the area. Few reptiles, birds and some livestock were seen around the proposed area and also along the main farm area. It is important that, the contractor preserve the natural ecosystem as possible. While it may not be possible to avoid disturbance to the natural ecosystem, High Value Animal Species (HVAS) should be protected where possible.

#### 14. Surrounding land uses

The area proposed for the institution is mainly a flat area comprised of woodlands and shrubs. According to the proponent, the area has not been used for any development before but was mainly used as a grazing area. Walking around the area, one notice that the entire area is dominated by bush encroachment. There is hardly any significant plant species as most of them are small trees and shrubs.

Land uses around the proposed site is mostly agricultural whereby the farm owner used it for farming with small stocks and livestock. There is no wildlife noticed during the assessment process. Below is the example of the natural environment around the proposed site:



Figure 4: Shows how the area at the proposed site looks like

#### 15. Historical, archaeological or cultural sites

The Mururani area is dominated by the Kavango, Oshiwambo and San people, in addition to some white farmers who own most of the commercial farmers. Mururani Gate which separates the communal from commercial farms was introduced many years ago in order to control the transmission of Food and Mouth Diseases (FMD). This Gate is important as it is also where movement control for vehicles moving from Zambia, the Democratic Republic of the Congo and Zimbabwe are passing through en route to either Windhoek or to the coastal areas of Namibia.

There are no notable archaeological sites nearby the proposed site. However, due to the historical presence of the San people, care should be exercised during excavations to ensure that where archaeological artefacts are found, that they are reported to the relevant authorities for further archaeological assessment.

#### 16. Geology Soils

The geological formation of the Otjozondjupa Region varies from one area to another. The region is well known as having abundance groundwater and often receive good rainfall on a yearly basis and vast natural resources and contribute a large chunk to the country's revenue.

#### 17. Bio-physical Environment

Otjozondjupa Region is well known for its ever-green climatic condition and green forest throughout the year. There are plenty of types of vegetation mainly because of annual good rainfall. Livestock and small stock are some of the livestock observed in the study area. Partial shrubs have been observed mostly along the B8 national road and throughout the Region.



Figure 5: Partial shrubs observed along to the B8 National Road nearby the proposed site

#### 18. Social Environment

Otjozondjupa Region is one of the vast regions in Namibia with a multi-ethnic background. Mururani area is mainly inhabitant of the Kavango people. There are also Oshiwambo, OtjiHerero and San speaking people around the Mururani Camp. Commercial farmers who are mainly whites are also noted and in the area. Most people, especially the Oshiwambo speaking people migrated to Mururani area because of work mostly at the nearby farmers as well as civil servants who are working for the Police Force as well as for Nature Conservation.

### 19. Current Infrastructure in the area

Mururani area has hardly any visible infrastructures, except the B8 national road network that connects Grootfontein to Rundu. In addition, the is a combined school, camping site and small stores for basic necessities. The proposed institution is expected to boost the economy of the area as well as reducing the distance between Rundu and Grootfontein where Mururani residents currently get their supplies.

The only educational facility currently existing in the area is the Mururani Combined School which is a Government owned school. The school cater for local community especially for lower grades and learners have to relocate to higher schools for higher grades. Below is one of the building at the Combined School.

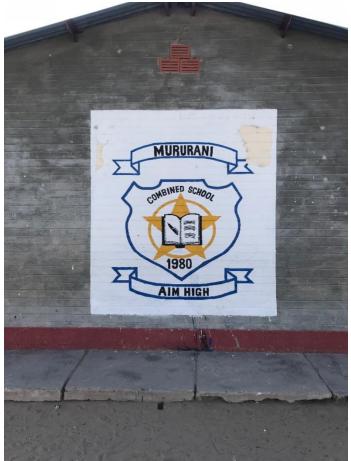


Figure 6: Shows a face of the Mururani Combined School

Scoping Report for Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029 The B8 national road that passes through Mururani looks well maintained and some gravel roads that connect various farms to Mururani also looks well-taken care-off. The electricity connection covers the entire Mururani area and most farms are connected to both water and electricity.

# Description of the proposed activity

### 1. Introduction

In this section, a short description of the approach and methodology that has been followed in this study is provided and is described in the following subsections.

#### 20. Project Management

KPM Environmental Consulting has been contracted by Farm Voorwaarts No. 1029 to carry out the required EIA study in order for the project to receive the Environmental Clearance from the Environmental Commissioner and in fulfilment of the Environmental Management Act No. 7 of 2007. As lead consultant, KPM coordinated and managed a project team of several specialist consultants to produce a well-integrated EIA process and report. The project team and specialists who participated in this study are listed in section table 1 above.

#### 21. Inception phase

Key documents and data relevant to this project were collected during the Project Inception Phase in August 2018, which is also the period when the consultant's methodology and work plan for this project was reviewed and updated. Other important activities that took place during this phase were: a review of all relevant previous studies and other available resources to validate and update the baseline conditions at each of the targeted sites; carry out initial consultations with Farm Voorwaarts No. 1029 and other key stakeholders on the assignment and recommend any necessary additions to the Scope of Work. It was also during the inception phase when Background Information Document on the project was developed; shared with all identified key stakeholders and invited to register their concerns about the proposed activity. Inception phase also allowed the consultant to formally register the project and launch an Environmental Clearance Certificate application with the Environmental Commission.

In addition to the project management and inception phase outlined above, the methodology utilised for this activity has been divided into four components which are later discussed in details in specific sections of this report. These are:

- Scoping
- Specialist investigation
- Impact assessment
- Public and stakeholders consultation

### 22. Scoping

The scoping process consisted of two phases, the desktop review of the project to identify all potential environmental impacts, and the field work to all project sites to verify baseline information and collect additional information. Although key data about the activity, particularly all the background information, technical data on the proposed site were provided for by the client, some information could be collected through reconnaissance field trips undertaken by the EIA team to the proposed area. The following activities and objectives were carried out and realised during those reconnaissance field trips.

- Verification of baseline data reviewed during the desktop review
- Collect additional and missing baseline information to fill the gaps in historical data
- Analyse potential changes in available and assessed baseline information to establish the current baseline biophysical environmental state
- Collect additional socio-economic information and data to verify socio-economic assessments carried out by the client
- Conduct targeted consultations with key stakeholders living in proximity to those sites

The construction of major infrastructures i.e. may have some direct impact on the natural environment or the community in which these operations will be undertaken. Therefore, it is for that reasons that construction activities cannot be undertaken without Environmental Clearance Certificate as per the EIA Regulations and Environmental Management Act No. 7 of 2007.

#### 23. Environmental Management

This study has identified potential environmental and social impacts. An Environmental Management Plan for construction of the proposed institution has been developed to ensure that all activities during construction are in line with the Environmental Management Act No. 7 of 2007. Therefore, mitigation measures are proposed where issues have been identified and where positive impacts are identified; measures to enhance those have also been identified.

#### 24. Public and Stakeholders Consultation

A key to a successful development and application of the EIA has been the liaison with the stakeholders during the entire project. The EIA regulations call for an open consultation with all interested and affected parties (I&APs) at defined stages of the EIA process. This entails participatory consultation with members of the public by providing an opportunity to review and comment on the proposed project. Public Participation has thus been undertaken to fulfil the requirements of Namibia's legislation, but also takes account of other acceptable best and practical approaches used in other areas in Southern Africa.

During this study, more public and key stakeholders consultations were carried out with main objectives to present the intended activity as known to the consultants to all stakeholders and IAP; and to provide stakeholders and I&APs the opportunity to raise their concerns regarding the proposed activity.



Figure 7: Members of the Mururani Community during the initial consultation meeting

The following activities were undertaken by the consultant to successfully complete this process:

- The project was registered with the Office of Environmental Commissioner in MEFT.
- The planned public consultation approach was discussed with MEFT and their principle approval of the approach was obtained
- All the key stakeholders, both public and private were identified
- Notices advertising the proposed project and inviting the public to register as I&APs as well as to provide and register their concerns appeared in the New Era

Newspaper dated 06 August 2020 and also in the Namibian Newspaper dated 07 August 2020 (Annexure C)

- A written notification including the Background Information Document (BID) was hand-delivered and emailed to all relevant government offices at national, regional and local levels, including Police at Mururani Gate, Veterinary staff at the Mururani Gate, commercial farmers in the area and community members and to relevant traditional authorities and private offices.
- A list of stakeholders was established for the study (Annexure E). Key stakeholders
  include people and institution at the national, regional and local levels. At National
  and regional levels, the consultation focused mainly at government institutions
  such as Ministries, regional and local governments. At a local level, the consultation
  targeted institutions, communities and people in close proximity to the Mururani
  as well as residents of Grootfontein, Rundu and Nkurenkuru. As indicated in this
  report most of the sites are more than a kilometre from any residential areas or
  institutions, in that case, the Local Authorities and other government institutions
  that represent the interest of the people were registered as a key stakeholder and
  forwarded all relevant documentation regarding the project.
- A Background Information Document (BID) (Annexure B), which contained concise background information about the proposed activity was compiled and widely circulated to all key stakeholders at the specific study sites. Copies of the BID were also left at government offices at national, regional and local levels as well as at public facilities such as municipal offices, Police offices, shops, post offices, regional councillors' offices, schools, etc. for further distribution to Interested & Affected Parties (IAP). An electronic copy of the BID was forwarded to regional and local authorities and other institutions for further dissemination.

- Notices were placed in the local daily newspapers (New Era Newspaper and the Namibian Newspaper). The notice provided a brief description of the project and the project sites and invited Interested and Affected Parties to register as such (Annexure C).
- Where applicable, people living within the vicinity of the Mururani area were directly contacted and provided with a brief explanation about the proposed initiative in the language of their preference and were also provided with copies of the BID.
- The BID was accompanied by a stakeholder registration form which made provision for a stakeholder to raise their issues of concern and return the form to the project office through the contact details provided on the form.

The consultant also provided the opportunities to the public and private stakeholders to contribute and or comment on this project by completing and returning a registration form, sending an email, or registering via telephonic communication with the consultants or by sending a cell phone text message to the number provided on the advert.

Targeted briefing and consultation meetings with key stakeholders were undertaken with all interested and affected parties.

## **IMPACT ASSESSMENT**

This Chapter provides details of the potential impacts that will emanate from establishment of a charcoal plant, firewood production, fencing poles production and furniture production. It should be noted that the proposed activities will be done in an area that has never been developed before and thus wooden materials to be used will be strictly those that comes from clearing of the site. The only activity that has taken place at the proposed site is farming activities mostly grazing with cattle and small stock. The site is currently fenced off with the normal 1 m fence.

During the construction stage, the first step would be to clear the area of the vegetation and trees that are currently occupying the area. Then excavation and actual construction would commence. Therefore, the impact assessment will also be confined to this operation. This Chapter also provides baseline information for the sites covered in this study in terms of their location, infrastructure and the receiving environment. The overall impacts of the activity are also discussed and potential mitigation measures recommended. Key findings of specialist studies are also summarized in this Chapter.

The environmental impacts associated with the proposed extension were identified through the following avenues:

- Desktop literature research on aspects related to Scoping study;
- Public Consultation and Participation Process;
- Comments from Interested and Affected Parties; and
- Site visits to the proposed area.

Some of the envisaged environmental impacts associated with construction activities are such as:

- Aesthetic issues (change of landscape);

- Employment creation;
- Noise & Vibration (installation phase);
- Dust (installation phase);
- Traffic (installation phase);
- Air Pollution.

The table below depicts that criteria used for to assess the various description of the area:

Assessment Criteria	Description of criteria
Magnitude (MA)	The absolute or relative change in the size or value of the environmental feature. 0 – None 2 – Minor 4 – Low 6 – Moderate 8 – High 10 – Very high/don't know
Direction (DI)	Will the impact represent beneficial or adverse change? Positive (P) versus negative (N) impacts. Negative impacts are a cause for concern. 0 – Positive Impact 1 – Negative Impact
Extent (EX)	The extent of environmental impacts associated with the proposed activity. 1 - Immediate (the site and immediate surrounds) 2 - Local (Mururani) 3 - Regional (Otjozondjupa Region) 4 - National (Namibia) 5 - International
Duration (DU)	The time period over which the impact will be felt. 1 – Immediate 2 – Short-term (0-5 years) 3 – Medium Term (5-15 years) 4 – Long-term (impact ceases after the operation) 5 - Permanent

Assessment Criteria	Description of criteria
Frequency (FR)	Refers to the return period for impacts which will recur over and over again. 0 - Annually or less 1 - 1 to 10 years 2 - 10 to 100 years
Reversibility	Refers to the permanence of the impact.
(RE)	0 -Temporary
	1 - Permanent
Likelihood	Refers to the possibility of the particular impact occurring as forecast.
(LI) of	0 - None
occurrence	1 - Improbable
	2 – Low probability (possibility of the impact occurring is low)
	3 – Medium Probability
	4 - Highly probable (where the impact is most likely to occur)
	5 - Definite (where the impact will occur)

Once the above factors have been ranked for each impact, the overall risk (environmental significance) of each impact was assessed using the following formula:

#### SP = (magnitude + direction + extent + duration + frequency + reversibility) X Likelihood

The maximum value is 120 significance points (SP). Environmental impacts were rated as either **High**, **Moderate** or **Low** significance on the following basis:



		EN\ SIG					AL					EN\ SIG					AL			
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POTENTIAL	ACTIVITY										RECOMMENDED									
ENVIRONMENT											MITIGATION MEASURES							_		
AL IMPACT		ЧА	DI	X	R	FR	Ц	TOTAI	5	SP		ЧА	IQ	Ě	DC	FR	L L	<b>FOTAI</b>	3	SP
Aesthetic	The	4	1	2		2	1	12	2	24	The bulk of the area has been	4	1	2	1	1		10	2	20
issues, clearing	proposed										disturbed already due to									
of land (change	construction										farming activities. However,									
of landscape)	will result in										much clearing of vegetation is									
	a change of										expected.									
	landscape																			
	due to																			
	earthworks																			
	associated																			
	with clearing																			
	of the																			
	access road.																			

		EN SIG	<b>NI</b>	FIC	AN	CE					ENVIRONMENTAL SIGNIFICANCE
		BE	=OR	REN	4IT	ΊG/	AT]	<b>ION</b>			AFTER MITIGATION
POTENTIAL	ACTIVITY	1									RECOMMENDED
ENVIRONMENT								_			MITIGATION MEASURES
AL IMPACT		МА	L	X		<u> </u>	L	гота	5	SP	MA EX FR SP SP
Employment	Clearing of	8	0	1	1	1	0	11	3	33	This is deemed to be a positive         8         0         1         1         0         11         3         33
creation	the										impact for the residents of
	proposed										Mururani area. Adhere to the
	site is likely										legal provisions in the Labour
	to create										Act (see Table 1) for the
	employment										recruitment of labour (target
	opportunitie										percentages for gender
	s for local										balance, optimal use of local
	residents										labour and SME's, etc.) in the
	through										Contract.

		EN SIG										ENV SIG					AL			
		BEF	OR	EN	<b>1IT</b>	IG/	AT]	ION				AFT	ER	MI	TIC	GAT	10	N		
POTENTIAL	ACTIVITY	<u> </u>									RECOMMENDED									
ENVIRONMENT								_			MITIGATION MEASURES									
AL IMPACT		MA	IQ	X	DQ	2 L	Ц	TOTA	5	SP		MA	IQ	X		2 L	L	TOTA	5	SP
	appointed																			
	contractors.																			
Health and	Employees	8	1	2	2	1	1	15	4	60	Enforcement of the Health &	8	1	1	2	1	1	14	3	42
Safety Related	contracted										Safety procedures and training									
impacts (during	by the										of the Health and Safety									
clearing of the	various										personnel.									
site)	servicing																			
	contractors																			
	may be																			
	exposed to																			
	health and																			
	safety																			

DOTENTAL		ENV SIG BEF	NIF	IC	AN	CE		ON			ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION
POTENTIAL ENVIRONMENT AL IMPACT	ACTIVITY	MA	I	×	Ŋ	Ř	<u>u</u>	TOTAL	LI	đ	RECOMMENDED MITIGATION MEASURES
	related hazards. E.g Dust from earthworks and some from the burning of waste.										
Noise & Vibration (construction phase)	Machinery used during construction will cause a	8	1	2	2	1	0	14	4	56	Work hours should be81221014342restricted to between 08h00III

		ENV SIG BEF	NI	=IC	AN	CE					ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION
POTENTIAL ENVIRONMENT AL IMPACT	ACTIVITY	МА	I	×	D	2	L	OTAL		<b>e</b>	RECOMMENDED MITIGATION MEASURES WICH IN COMPANY WICH INCOMPANY WICH INCOMPANY WICH INCOMPANY
	noise- related nuisance to nearby farmers.	Σ	0		Q	11.				S	equipment, power tools and the movement of heavy vehicles is less than 1 km from neighbouring farms. If an exception to this provision is required, all residents within the 500 m radius should be given 1 week's written notice.
Dust (construction	Dust could be generated	8	1	2	2	1	0	14	4	56	A watering truck should be81221014228used on gravel roads with the </th

		ENV SIG BEF	NIF	=IC	AN	CE						ENV SIG AFT	NI	FIC	AN	CE		N		
POTENTIAL	ACTIVITY										RECOMMENDED									
ENVIRONMENT								_			MITIGATION MEASURES							-		
AL IMPACT		MA	IQ	X	DQ	۲ ۲	Ц	<b>LOT</b>	5	S		MA	IQ	X	nd	Ľ	L Q	<b>IOT</b>	5	SP
and installation	during the										especially during delivery									
phase)	land clearing										transportation. However, due									
	process due										consideration should be given									
	to										to water restrictions during									
	machinery										times of drought.									
	and																			
	earthworks.																			
Traffic	Increase in	4	1	2	2	1	1	12	3	36	Provide traffic calming	4	1	2	2	1	1	12	2	24
congestion	traffic in the										measures and speed limits									
(Construction &	area is										along strategic routes.									
	expected																			

		EN\ SIG BEF	NI	FIC	AN	CE		ION				EN\ SIG AFT	NI	FIC	AN	CE		N		
POTENTIAL ENVIRONMENT AL IMPACT	ACTIVITY	۷						DTAL		•	RECOMMENDED MITIGATION MEASURES	A						DTAL		0
Operational	due to	Σ		Û		ü	Ċ	TOT		S		MA		Û		Ë		TOT	Ξ	S
phase)	construction and installation activities.																			
Air Pollution	Air pollution might occur during excavation and transportati	8	1	2	2	2	1	16	4	64	The contractor should ensure that containers of construction materials are secured	8	1	2	2	1	1	15	4	60

		ENV SIG BEF	NIF	FIC	AN	CE		ION				ENV SIG AFT	INI	FIC	AN	CE		N		
POTENTIAL ENVIRONMENT	ACTIVITY										RECOMMENDED MITIGATION MEASURES									
AL IMPACT								AL			MITIGATION MEASURES							AL.		
AL IMPACI		MA	DI	EX	DD	Ч	L	TOTAL	5	SP		MA	IQ	ЕX	DD	Ц	L	TOT	5	SP
	on of																			
	construction																			
	materials.																			
	Air pollution																			
	might also																			
	be caused																			
	by burning																			
	of wood to																			
	make																			
	charcoal.																			
Potential	Clearing of	10	1	1	3	1	1	17	3	51	Deemed a positive impact.	10	1	1	2	1	1	17	3	51
economic	the land and																			

		EN\ SIG BEF	INI	FIC	AN	CE					ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION
POTENTIAL	ACTIVITY										RECOMMENDED
ENVIRONMENT								F			MITIGATION MEASURES
AL IMPACT		МА	IO	X	DO	۲ ۲	Ц	τοτ	5	SP	SP LI DE MA
opportunities	the actual										
for local	construction										
contractors	will result in										
providing	economic										
services and	opportunitie										
supplies	s for local										
	contractors.										
Increased soil	Increased	8	1	2	2	2	1	16	4	64	• When excavating, topsoil 8 1 2 2 2 1 16 3 48
erosion risks	erosion risks										should be stockpiled in a
due to heavy	due to										demarcated area.
trucks impact	clearance of										
on vegetation	vegetation										

		SIG	NIF	ONM FICAI E MI	NCE		ON			ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION	
POTENTIAL ENVIRONMENT	ACTIVITY	<u> </u>								RECOMMENDED MITIGATION MEASURES	
AL IMPACT		МА	IQ	EX	2 £	L	TOTAL	5	SP	S LI TOTAL MA DIAL DIAL	5
and conservation	and the associated increase in sediment loads to soil erosion									<ul> <li>Stockpiled topsoil should be used to rehabilitate the nearest borrow area (existing borrow pits), if such an area is located less than 20 km from the stockpile.</li> </ul>	

POTENTIAL ENVIRONMENT	ACTIVITY	ENVIRONMENTAL SIGNIFICANCE BEFORE MITIGATION									ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION RECOMMENDED MITIGATION MEASURES
AL IMPACT		MA	DI	EX	DU	FR	L	TOTAL	5	SP	SP TOTAL SP TOTAL
Soil Contamination	Spillages of hazardous substances on the developmen t site could impact on water bodies and downstream users. Soil, surface and groundwate r pollution from potential disposal of domestic		1		2			16	3	48	<ul> <li>Store all hazardous waste in bunded areas on concrete slabs.</li> <li>Recycle or sell liquid wastes and by-products where possible.</li> <li>Separate oily and non-oily areas and route all oily drainage via an oil separator.</li> <li>Separated oil to be collected for recycling.</li> <li>Use environmentally friendly detergents.</li> </ul>

		SIG	'IRO NIFI ORE	CAN	CE	IL TION				ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION							
POTENTIAL ENVIRONMENT AL IMPACT	ACTIVITY	МА	Id	DO EX	FR	DE TOTAL	=	S	RECOMMENDED MITIGATION MEASURES	MA	DI	EX	DO	£ 1	TOTAL	5	SP
	waste on open spaces																

 Table 1: Identified Impact Assessment

#### 25. Discussion of Impacts

All potential impacts have been screened and the applicable impacts have been subjected to the criteria outlined in Table 1. All impacts outlined in Table 1 have been addressed in the EMP (Annexure A). The following should be noted regarding some of the key negative impacts associated with the proposed activity and their corresponding mitigation measures:

- Increase investor confidence: The proposed institution will enhance the development of Mururani area and boost business opportunities within the Otjozondjupa Region. The additional activities of charcoal production, firewood production, furniture production and fencing poles manufacturing will add value to the local economy through short-long term employment.
- Increase international trade: the proposed institution will improve international trade in the country as the institution may acquire some materials/equipment from outside of the country and also an exchange of students during the operational stage. Also, items like charcoal are likely to attract foreign customers and though that access to much needed revenue.
- **Emplyment opportunities:** the proposed activities will create employement opportunities for local people as the main Contractor may opt to employ and sub-contract local Small and Medium Contractors from the area.
- Solid Waste Management: the Proponent need to make arrangement for the disposal of solid waste from the site during contraction as well as other waste during operational stage of the proposed institution.

## **CONCLUSION AND RECOMMENDATIONS**

The Environmental Impact Assessment process did not identify any serious threat that the proposed institution may have on the natural and socio-economic environment. Potential impacts associated with clearing of the site have been identified and their significance determined. Impacts on the groundwater availability were identified as significant for the proposed institution and also for the estblishment of the charcoal production, firewood production, furniture and fencing poles manufcating plant as some farmers might complain that the activities during construction and operational stage are using more water. The impacts identified in this study can be mitigated through effective implementation of the Environmental Management Plan and are therefore not expected to have any detrimental impacts on the surrounding communities.

The other impacts identified in this study can be addressed through the implementation of the Environmental Management Plan and are therefore not expected to have any detrimental impacts on the surrounding communities. Mitigation measures are described in greater details in the EMP. Hence, the activity, as proposed in this report, can be undertaken with no significant impacts if executed according to the EMP.

It is, therefore, concluded that the establishment of the charcoal production, firewood manufacturing, fencing poles and furniture production can be undertaken without posing any serious health effects on the surrounding communities and habitats. It is considered that the benefits of establishing the proposed charcoal production, firewood manufacturing, fencing poles and furniture production at Mururani area far outweigh the minor risks that can be avoided through EMP implementation. It is recommended that the EMP should be implemented fully in order to ensure that all potential environmental and social impacts are satisfactorily addressed.

#### 1. Recommendations

The Environmental Management Plan contained in this report must be strictly implemented and must become part and parcel of the Contractor's contract for contractor contracted to clear the site. Contractors should adhere to all proposed mitigation measure proposed in the EMP. The Proponent should ensure that all Contractors and staff working on site during the construction stage are inducted on how they should conduct themselves on construction site. It is therefore, recommended that Environmental Clearance be granted for the proposed charcoal production, firewood manufacturing, fencing poles and furniture production.

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### LIST OF ANNEXURES

## **Annexure A: Environmental Management Plan**

## **Annexure B: Background Information Document**

# Annexure C: Press Notice to Interested and Affected Parties

Scoping Report for Charcoal, Firewood, Fencing Poles and Furniture Production at Farm Voorwaarts No. 1029

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# Annexure D: Minutes of the Consultation Meetings, Attendance Register and PowerPoint Presentation

# Annexure E: List of Registered Interested & Affected Parties

# Annexure F: Curriculum Vitae of the Environmental Assessment Practitioners

## Annexure G: Map of the Proposed Area

# Annexure H: Other correspondence related to this EIA