



Environmental Scoping and Management Plan


The Proposed Construction and Operation of a Crocodile Farm (husbandry and tannery) and Leisure (lodging and tours) Park activities on a portion of the remainder of farm Usakos and Townlands No. 93: South-west Longitudinal of the Khan River, Erongo Region

APRIL 20

Compiled for: Reptilia Crocodile Farm and Park cc
P.O. Box 3749
Walvis Bay, Namibia

Authored by: Mr. Vilho Mtuleni & Mr. Titus Shuuya



| DOCUMENT INFORMATION AND APPROVAL | | |
|--|--|-------------|
| Title | Environmental Scoping and Management Plan for the Proposed Construction and Operation of a Crocodile Farm (husbandry and tannery) and Leisure (lodging and tours) Park | |
| ECC Application Reference number | APP-002760 | |
| Location | A portion of the remainder of farm Usakos and Townlands No. 93: South-west Longitudinal of the Khan River, Erongo Region | |
| Proponent | Reptilia Crocodile Farm and Park cc P.O. Box 3749 Walvis Bay, Namibia | |
| Author - EAP: | Signature | Date |
| Mr. Titus Shuuya (EAP) 1 - Enviro-Leap |  | APRIL 20 |
| Approval - Client | | |
| Mr. Jacobs Sihela Rep. Reptilia Crocodile Farm and Park | | APRIL 20 |
| Copy Right: <i>"This document is the intellectual property of ELC and may only be used for the intended purpose. Unauthorized use, duplication, plagiarism or copying without referencing is prohibited"</i> | | |

EXECUTIVE SUMMARY

Project Overview

Reptilia Crocodile Farm and Park cc is a fully registered, 100% Namibian owned company that intends to construct and operate a crocodile farm as well leisure park on a portion of the remaining portion of the farm Usakos and Townlands No. 93 in Usakos. The overall objective of the proposed project is to breed the *Crocodylus niloticus* (Nile crocodiles) for conservation purposes, tourism and hide production, thus promoting the long-term survival of the species. The proposed development shall be achieved through the high-level interlinked objectives which include, but are not limited to biodiversity conservation, improved economic growth and living standards at local, regional, national and international levels.

The proposed activity entails both the construction of crocodile farming and lodging associated infrastructure and the operation and maintenance of these infrastructure thereof. In particular, the construction activities which consist of holding pens, ponds and abattoir, veterinary room, feed stores and erecting the farm boundary fences. Other construction activities are the installation of water, effluent, power supply, and associated supporting infrastructure. Whereas the operational activities are crocodile husbandry, abattoir and tannery as well as the hospitality services.

While their operations stimulate diversification in the national economic and development activities, consequently creating employment opportunities and trickling benefits to the larger Namibian population, it poses the risks of unprecedented negative environmental impacts.

Potential impacts may vary in terms of scale (locality), magnitude and duration e.g., minor negative impacts in the form of noise and dust pollution as well as vegetation removal especially during the construction phase will be experienced, however, these are deemed to be localized and of short duration.

To ensure that development activities are undertaken in an economic, social and environmental sound sustainable manner, the Namibian Constitution and Environmental Management Act No. 7 of 2007 provides for an environmental assessment process. The purpose of the environmental assessment is to identify, analyse and ensure compliance of the proposed operations with the environmental legislation in respect to managing potential impacts associated with Reptilia Crocodile Farm and Park by:

- Identifying potential socio-economic and environmental impacts
- Proposing management measures to avoid, prevent and or mitigate these
- Compile an Environmental Management for compliance monitoring and reporting on the implementation of the Environmental Clearance Certificate conditions

Need for the Project

The proposed project initiative is in line with the goal of the Government of the Republic of Namibia, through its strategic and developmental plans that aim to protect ecosystems, biological diversity and ecological processes, through conservation and sustainable use of natural resources. As such the plan is supporting and enhancing the livelihoods, self-reliance and living standards of Namibians, especially that of the local community of the proposed project location. Equally, the proposed project responds to

the Convention on biological diversity provides the sustainable use of biological resources and equitable sharing of benefits arising from the use of biological resources. Moreover, the proposed project also supports Namibia's crocodile management plan which has identified the aesthetic and economic potential of the species which are currently being underutilized. The proposed project has economic potential with minimal environmental impacts if the mitigation measures guidelines and regulations are implemented and enforced while encouraging non-consumptive tourism, research & development.

In addition, the proposed activity creates the potential for the following marginal net benefits:

- Contribution taxes and royalty
- Technological skill and knowledge transfer
- Creates the most needed employment opportunities at a local, regional and national level

Project Description

Reptilia Crocodile Farm and Park cc is a fully registered, 100% Namibian owned company that intends to construct and operate a crocodile farm as well leisure park on a portion of the remainder portion of farm Usakos and Townlands No. 93 in Usakos. The proposed project is located within the agricultural development zone of the Usakos Town Planning Scheme, with established complementary business entities. The overall objective of the proposed project is to breed the *Crocodylus niloticus* (Nile crocodiles) for conservation purposes, tourism and hide production, thus promoting the long-term survival of the species while contributing to economic growth. The proposed development shall be achieved through the high-level interlinked objectives which include, but are not limited to biodiversity conservation, improved economic growth and living standards at local, regional, national and international levels.

The proposed project entails both the construction of crocodile farming and lodging associated infrastructure and the operation and maintenance of these infrastructure thereof. In particular, the area earmarked for construction activities shall be cleared and levelled mechanically before the installation of all supporting infrastructure which includes, but is not limited to:

- Boundary fences
- Administration block (consisting of office space, parking area, ablutions facilities)
- Holding pens;
- Ponds and abattoir;
- Veterinary room;
- Feed stores and erect the farm boundary fences;
- Installation of water and effluent; and
- Power supply infrastructure.

Whereas, the operational activities mainly consist of:

- Crocodile husbandry;
- Abattoir and tannery; and
- Hospitality services.

Need for an Environmental Impact Assessment

While increased economic activities can stimulate demographic changes and alter social, economic and environmental practices in many ways. Adverse environmental and socio-economic impacts have become a major area of concern for the business community, their customers, and Interest and Affected Parties (I&APs). As a result, companies seek to manage these impacts as part of their ethical and sustainable business conduct. Similarly, identifying, avoiding, mitigating and managing potential impacts, is a necessary condition for Reptilia Crocodile Farm and Park to undertake its operation in compliance with the Namibian environmental legislative requirements, international best practices and other applicable legal frameworks.

Therefore, Reptilia Crocodile Farm and Park has appointed Mr. Titus Shuuya to conduct an environmental assessment and facilitate the process of the Environmental Clearance Certificate (ECC) approval.

Approach to the EIA Process

The overall assessment process consisted of a site visit to the proposed project location and public consultation with the I&APs. An environmental scoping and management plan (EMP) were compiled and constituted the application for the Environmental Clearance Certificate submitted to the Office of Environmental Commissioner under the Ministry of Environment, Forestry and Tourism (MEFT).

Overall Recommendation

Based on the findings of the environmental scoping assessment, which concludes that all potential negative impacts associated with the proposed Reptilia Crocodile Farm and Park operations are minimal and practical mitigation measures are available. Equally, the positive impacts can be harnessed to increase the net marginal benefits relating to the socio-economic aspects of the operations.

Enviro-Leap environmental practitioner confidently recommends that the proposed project can proceed and should be authorized by the Directorate of Environmental Affairs (DEA). The proposed operations are considered to have an overall low negative environmental impact and an overall moderate positive socio-economic impact (with the implementation and enforcement of respective mitigation measures as detailed in the EMP).

Based on this, it's recommended that the proponent must upon obtaining their ECC, implement and enforce all appropriate management and mitigation measures and monitoring requirements as stipulated in the EMP and or as a condition of the ECC. These measures must be undertaken to promote and uphold good practice environmental principles and adhere to relevant legislation (including international best practices) by avoiding unacceptable impacts to the receiving environment.

Taking into consideration the findings of the environmental scoping assessment process and given the national and regional strategic requirements for infrastructure development and economic growth, it is the opinion of the Environmental Assessment Practitioner (EAP) that the project benefits outweigh the costs and that the project will make a positive contribution towards steering Namibia's economic growth, with efforts on the species conservation. Provided that the specified mitigation measures are applied effectively, it is recommended that Reptilia Crocodile Farm and Park receive an ECC in terms of Section 32 of the EMA No. 7 of 2007 and its EIA Regulations of 2012.

GLOSSARY

| | |
|-------------|---|
| DEA | Department of Environmental Affairs |
| EA | Environmental Assessment |
| ECC | Environmental Clearance Certificate |
| EAP | Environmental Assessment Practitioner |
| EIA | Environmental Impact Assessment |
| EMA | Environmental Management Act |
| EMP | Environmental Management Plan |
| IAPs | Interest and Affected Parties |
| MEFT | Ministry of Environment, Forestry and Tourism |
| PPP | Public Participation Process |

TABLE OF CONTENTS

| | |
|---|-----|
| EXECUTIVE SUMMARY | iii |
| GLOSSARY | vi |
| TABLE OF CONTENTS..... | vii |
| 1. INTRODUCTION | 10 |
| 1.1. PROJECT APPLICANT AND PROJECT OVERVIEW | 11 |
| 1.2. PROJECT MOTIVATION (INCLUDING NEED AND DESIRABILITY) | 11 |
| 1.3. REQUIREMENTS FOR AN ENVIRONMENTAL IMPACT ASSESSMENT | 13 |
| 1.4. EIA TEAM | 14 |
| 1.5. DETAILS AND EXPERTISE OF THE EAP | 14 |
| 1.6. OBJECTIVES OF THE ENVIRONMENTAL SCOPING ASSESSMENT | 14 |
| 2. PROJECT DESCRIPTION | 16 |
| 2.1. SITE SELECTION | 16 |
| 2.2. KEY COMPONENTS OF REPTILIA CROCODILE FARM AND PARK OPERATIONS | 18 |
| 2.3. DESCRIPTION OF THE PROPOSED PROJECT OPERATIONS | 18 |
| 2.3.1. Overview of the crocodile ranching operation | 18 |
| 2.3.2. Envisaged operational activities (Crocodile ranching) | 19 |
| 2.3.3. Operational output for the crocodile ranching | 21 |
| 2.3.4. Eggs incubation and temperature control | 21 |
| 2.3.5. Hatching and caring for crocodilian | 21 |
| 2.3.6. Feeds and feeding of crocodilian | 22 |
| 2.3.7. Housing of crocodilian | 22 |
| 2.3.8. Diseases and their control | 22 |
| 2.3.9. Economic and development impact | 22 |
| 2.3.10. Tourism value and employment creation | 23 |
| 2.3.11. Compliance with the Convention on International Trade of Endangered Species (CITES) | 23 |
| 2.4. PROJECT DEVELOPMENT CYCLE | 24 |
| 2.4.1. Construction/installation of associated supporting infrastructure | 24 |
| 2.4.2. Production Operations and Maintenance of Infrastructure and Equipment | 25 |
| 2.4.3. Decommissioning | 26 |
| 3. DESCRIPTION OF THE AFFECTED ENVIRONMENT | 27 |
| 3.1 BIOPHYSICAL ENVIRONMENT | 27 |
| 3.1.1 Climatic Conditions | 27 |
| 3.1.2 Rainfall | 27 |
| 3.1.3 Wind and temperature | 28 |
| 3.1.4 Fog | 29 |
| 3.1.5 Sunshine | 29 |
| 3.1.6 Hydrology | 29 |
| 3.1.7 Geology | 30 |
| 3.1.8 Terrestrial Ecology and Sensitivity | 30 |
| 3.2 SOCIO-ECONOMICAL ENVIRONMENT | 31 |
| 3.2.1 Demographic Profile | 31 |
| 3.2.2 Archaeology and Heritage Profile | 32 |
| 4. APPROACH TO EIA PROCESS AND PUBLIC PARTICIPATION | 33 |
| 4.1 OVERVIEW OF APPROACH FOR COMPILING THE SCOPING AND EMP REPORTS | 33 |
| 4.2 LEGAL CONTEXT FOR THE EIA | 33 |
| 4.3 LEGISLATION AND GUIDELINES PERTINENT TO THIS ENVIRONMENTAL ASSESSMENT | 34 |
| 4.3.1 Environmental Management Act No. 7 of 2007 | 34 |
| 4.3.2 Environmental Assessment Policy (1995) | 35 |
| 4.3.3 The Water Act No. 54 of 1956 | 35 |
| 4.3.4 The Forest Act No. 12 of 2001 | 36 |
| 4.3.5 Nature Conservation Ordinance No. 4 of 1975 | 36 |
| 4.3.6 Labor Act No. 11 of 2007 | 36 |

| | |
|---|-------------------------------------|
| 4.3.7 Water Resources Management Act (No. 24 of 2004), even though it is not implemented yet | 36 |
| 4.3.8 Pollution Control and Waste Management Bill which is the guideline only | 37 |
| 4.3.9 Public Health Act No. 36 of 1919 | 37 |
| 4.3.10 Other Legal Requirements..... | 37 |
| 4.3.11 Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (No. 36 of 1947) | 37 |
| 4.3.12 Biosafety Act (No. 7 of 2006)..... | 37 |
| 4.3.13 Precautionary and Polluter Pays Principles..... | 38 |
| 4.4 PRINCIPLES FOR PUBLIC PARTICIPATION / CONSULTATION | 38 |
| 4.5 PUBLIC PARTICIPATION PROCESS..... | 38 |
| 4.6 AUTHORITY CONSULTATION DURING THE EIA PROCESS | 39 |
| 4.8 APPROACH TO IMPACT ASSESSMENT..... | 39 |
| 5. ASSESSMENT OF ALTERNATIVES AND IMPACTS..... | 42 |
| 5.1 ASSESSMENT OF IMPACTS AND MITIGATION | 42 |
| 5.1.1 NO-GO ALTERNATIVE | 42 |
| 5.1.2 ALTERNATIVES FOR SITES SELECTION | 43 |
| 5.1.3 CONCLUDING STATEMENT ON THE IMPACT ASSESSMENT AND MITIGATION | 43 |
| 5.2 ASSESSMENT OF IMPACTS AND MITIGATION MEASURES | 44 |
| 5.2.1 IMPACTS ON THE BIOPHYSICAL ENVIRONMENT | 44 |
| 5.2.2 IMPACTS ON THE SOCIAL, HEALTH AND SAFETY | 47 |
| 6. CONCLUSIONS AND RECOMMENDATIONS | 49 |
| 6.1 CONCLUSIONS | 49 |
| 6.2 RECOMMENDATIONS..... | 51 |
| 7. REFERENCE | 52 |
| APPENDIX A – ACCEPTANCE LETTER FROM USAKOS TOWN COUNCIL | 53 |
| APPENDIX B – LAYOUT AND DESIGN OF THE CROCODILIAN RANCH AND ASSOCIATED SUPPORTING FACILITIES | Error! Bookmark not defined. |
| APPENDIX C – PUBLIC PARTICIPATION PROCESS | 55 |
| APPENDIX D – ENVIRONMENTAL MANAGEMENT PLAN | 68 |
| 1. PROJECT BACKGROUND | 68 |
| 2. LEGISLATIONS REQUIREMENT | 69 |
| 3. OVERALL OBJECTIVES OF THE EMP..... | 69 |
| 4. MANAGEMENT, LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THE EMP | 69 |
| 5. POTENTIAL ENVIRONMENTAL IMPACTS/ISSUES, MITIGATION AND MONITORING PLAN | 70 |
| 5.1. Biophysical Environment Management and Mitigation | 70 |
| 5.2. Social, Health and Safety Management and Mitigation | 70 |
| 5.3. Stakeholder Management and Mitigation | 71 |
| 6. EMERGENCY AND RESPONSE CONTACTS..... | 71 |
| 7. IMPLEMENTATION, MONITORING AND EVALUATION OF THE EMP..... | 71 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1: Anticipated environmental assessment timeline | 10 |
| Figure 2: Approximate proposed Reptilia Crocodile Farm and Park project site (light blue polygon) south-west of the Khan River in Usakos..... | 17 |
| Figure 3: The envisaged operational process for the proposed crocodile ranching, suggesting a development that can be sustained over the years. | 20 |
| Figure 4: Annual rainfall variation across west-to-east gradient a gradient and across the different biomes | 28 |
| Figure 5: Minimum and maximum annual average temperatures and wind-rise direction and speed at the proposed development. | 29 |
| Figure 6: Illustration of the environmental assessment process in Namibia (Source: Risk-Based Solution)..... | 35 |

LIST OF TABLES

| | |
|---|----|
| Table 1: List of activities identified in the EIA Regulations which apply to the proposed project | 13 |
| Table 2: The EIA Management Team..... | 14 |
| Table 3: Technical details of the proposed facility as required by the Competent Authority | 24 |
| Table 4: Criteria for Assessing Impacts..... | 39 |
| Table 5: Impact on the Biodiversity..... | 45 |
| Table 6: Impact on groundwater and soil..... | 46 |
| Table 7: Impact on the Health and Safety | 47 |
| Table 8: Impact on the socio-economic aspect..... | 48 |

1. INTRODUCTION

The Environmental Management Act No. 7 of 2007 (also referred to as the EMA) and its Regulations promulgated in the Government Gazette No. 4878 of 2012, stipulates that for each developmental activity, which is listed as those that may not be undertaken without obtaining an Environmental Clearance Certificate (ECC) and Environmental Assessment (EA) must be conducted. Reptilia Crocodile Farm and Park and associated operations trigger some listed activities in terms of the EMA.

Therefore, an environmental assessment must be conducted to identify, assess and ascertain potential environmental impacts that may arise as a result of undertaking the proposed operations. Hence, the environmental assessment is a process by which the potential impacts, whether positive or negative are predicted or identified, findings are interpreted and communicated to I&APs for inputs.

Additionally, this report presents findings of an environmental scoping process that evaluates the likely socio-economic and environmental effects of the proposed operation and further identifies suitable mitigation measures for avoiding or minimizing the predicted impacts. The envisioned Environmental Impact Assessment (EIA) process was undertaken in a holistic approach encompassing different elements as shown in Figure 1.



Figure 1: Anticipated environmental assessment timeline

1.1. PROJECT APPLICANT AND PROJECT OVERVIEW

Reptilia Crocodile Farm and Park intends to construct and operate a crocodile farm in Usakos, to breed the Nile crocodiles for conservation purposes, tourism and hide production. The proposed site is located southwest of the Khan River on a portion of the remainder portion of farm Usakos.

The component of the key activities envisaged includes the following:

- The construction: for the smooth operation of the proposed crocodile farm and park the following supporting infrastructure will be required and is to be constructed on a three (3) hectare area – holding pens, ponds and abattoir, veterinary room, feed stores and overall farm boundary fences.
- Installation of water and effluent, and power supply infrastructure: primarily these will be connected, and services provided by the Usakos Town Council and a 120 kVA diesel generator backup supply.
- Crocodile Husbandry: key activity here includes the sourcing of the seed stock of crocodiles, breeding, feeding and health care, and the maintenance of infrastructures.
- Abattoir and tannery operation: as part of the support infrastructure for the crocodile farm which will include growing out juvenile crocodile, harvesting and hide tanning.
- Hospitality services: to complement the crocodile husbandry, the operations include a component of tourism activities mainly the provision of accommodation (lodging and camping), restaurant and guided tours. This is most important to ensure that the farming operation is financially sustainable.

1.2. PROJECT MOTIVATION (INCLUDING NEED AND DESIRABILITY)

The Namibian domestic economy remains weak and is expected to recover moderately in 2022 or when the COVID-19 pandemic regulations have been lifted. Crocodile ranching can be a lucrative industry with considerable potential benefits for community development and conservation. Crocodiles are also a valuable species in the ecotourism industries and have considerable tourism value. In 2014, the Namibian Crocodile management plan estimated a total of 1000 female and 800 male adult wild crocodiles in Namibia, with the potential to generate an estimated 1,200,000 NAD per annum with an estimated annual management cost of 500,000 NAD. This signifies that there is little risk of the management and operation of the proposed project having a significant long-term positive effect.

In Namibia, the long-term success and profitability of crocodile ranching will depend heavily on international market demand. For example, during the last decade, the international demand for crocodile skin has increased tremendously. The proposed profitability crocodile farming business will produce skin and other additional services that are crocodile produce based such as bones, meat, teeth, eggs with the aim to export it to different corners of the

world by using a niche marketing strategy. Especially, Crocodile skin has a global demand due to the higher price per inch of the skin. Moreover, Crocodile skin is used in luxurious and exclusive products, as such, this will allow the proposed project to sell directly to producers of these luxury items. Conversely, this type of transaction is crucial for the overall business growth as price setting will be intimate and season based. In Namibia, export-oriented products are very few thus the need and desire to exploit the proposed open marketing project.

Crocodile ranching is a quite new form of animal production compared to most of the conventional agricultural animals' production such as chickens, ducks, sheep, goats and cattle. Historically, crocodilian farming began in the 1970s, when the demand for skins could no longer be satisfied by unregulated wild harvesting, which had increased significantly from the late 1940s. In 2010-2013 around 40-45% of crocodilian skins in international trade were estimated to have been derived through ranching programs which include the Nile crocodile (*Crocodylus niloticus*) among other species. The provision of commercial benefits from ranching to local people living with wild crocodilians plays a significant role in the incentive-driven conservation programs for crocodilians that now operate in many countries, which in Namibia is currently underutilized. To ensure financial sustainability, the proposed development shall look at alternative means of increasing the profitability of the farming style by integrating tourism and meat production as the major component to supplement skin production.

The proposed project is located in Usakos Town, approximately 140 kilometers northeast of Swakopmund in the Erongo Region of Namibia. Usakos Town is located on the B2 (Trans-Kalahari Highway), the main road between the coastal towns (Swakopmund and Walvis Bay), which are also well-known as international tourist destinations. However, the proposed project will not only attract international travellers but also locals making their way to the coastal towns. The proposed project will offer facilities such as a restaurant for daily visitors, construction of a crocodile farm, exhibitions hall and curio shop. It is expected that a total number of 500 employees (unskilled, semi-skilled and skilled) shall be hired during the construction and operational phase. All the unskilled labor force shall be hired from the local authority to reduce unemployment and improve the living standard of the local community.

Key steps required to foster the national economy to recovery include, but are not limited to; lowering regulatory compliance costs for businesses, reducing electricity and water services, export and import costs and containing public-sector salary dynamics by avoiding regulations that hamper domestic competition. Therefore, encouraging activities such as proposed by Reptilia Crocodile Farm and Park is crucial for stimulating economic growth.

Equally, the proposed project will create the potential for the following marginal net benefits:

- Contribution taxes and royalty;
- Technological skill and knowledge transfer (capacity building); and
- Creates the most needed employment opportunities.

1.3. REQUIREMENTS FOR AN ENVIRONMENTAL IMPACT ASSESSMENT

While increased economic activities can stimulate demographic changes and alter social, economic and environmental practices in many ways. Adverse environmental and socio-economic impacts have become a major area of concern for the business community, their customers, and other key stakeholders. As a result, companies seek to manage these impacts as part of their ethical and sustainable business conduct. Similarly, identifying, avoiding, mitigating and managing impacts, is a necessary condition for Reptilia Crocodile Farm and Park to undertake its operation in compliance with the environmental legislative requirements in Namibia, other applicable legislation and international best practices.

Therefore, Reptilia Crocodile Farm and Park has appointed Mr. Titus Shuuya to conduct an environmental assessment and facilitate the process of obtaining an environmental clearance certificate. The proposed project is listed as an activity requiring an environmental clearance certificate as per the Environmental Management Act No.7 of 2007 and its associated regulation 29 (sub-regulation 9) of Government Notice No. 29 of 2012 (see **Error! Reference source not found.**).

Table 1: List of activities identified in the EIA Regulations which apply to the proposed project

| EMA 2007 Legislation | Description of activity | Relevance to this project |
|---|--|---|
| Activity 6 Tourism Development | The construction of resorts, lodges, hotels or other tourism and hospitality facilities. | The core of the proposed activity entails the provision of tourism services e.g., lodging and tours. |
| Activity 7 (7.5) Agricultural activities) | Pest and disease control. | Crocodile husbandry includes the use of parasites and disease control agents. |
| Activity 8 (8.1) Water resource development | The abstraction of ground or surface water for industrial or commercial purposes. | The proposed project planned to establish two (2) to three (3) groundwater abstraction boreholes for water consumption with water supplement supplied by Usakos Town Council. |
| Activity 9 (9.1) Hazardous Substance Treatment, Handling and Storage | The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974. | A component of the operations is the processing of hides, these may include skinning tanning chemicals. These may lead to contamination of the receiving environment with hazardous substances. |

1.4. EIA TEAM

Mr. Titus Shuuya has been appointed by Reptilia Crocodile Farm and Park to undertake the EIA required for the proposed project (Table 2). A public participation process (PPP) forms an integral part of the Environmental Assessment Process to aid in identifying issues and possible alternatives for consideration. Details on the PPP are included in section 4 of this Scoping Report.

Table 2: The EIA Management Team

| NAME | ORGANISATION | ROLE/ SPECIALIST STUDY UNDERTAKEN |
|---|------------------------|-------------------------------------|
| Environmental Assessment Practitioners | | |
| Mr. Shuuya Titus | Independent Consultant | Project Manager and Assessor |
| Mr. Vilho P. Mtuleni | Reviewer | Environment Practitioner - Reviewer |

1.5. DETAILS AND EXPERTISE OF THE EAP

Over the past four years, Mr. Titus Shuuya has been involved in a multitude of Environmental Assessment projects across Namibia and SADC. The Environmental Practitioners of Mr. Titus Shuuya has a combined of more than 35 years of experience in the environmental sector, ecological research and stakeholder engagement. Consequently, the team offers a wealth of experience and appreciation of the environmental and social priorities and national policies and regulations in Namibia.

1.6. OBJECTIVES OF THE ENVIRONMENTAL SCOPING ASSESSMENT

The primary objective of this EA Report is to present stakeholders, I&APs and the Competent Authority, the DEA, with an overview of the predicted impacts and associated management actions required to avoid or mitigate the negative impacts; or to enhance the benefits of the proposed Reptilia Crocodile Farm and Park.

In broad terms, the 2012 EMA EIA Regulations (GG 4878) stipulates that an EIA Process must be undertaken to determine the potential environmental impacts, mitigation and closure outcomes, as well as the residual risks of any listed activity. Therefore, based on these (EIA Regulations), the objectives of the EA Process are to:

- determine the policy and legislative context within which the activity is located and note how the proposed activity complies with and responds to the policy and legislative context;
- describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a

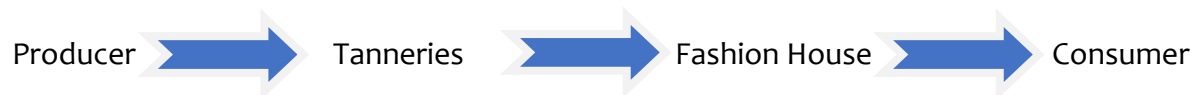
ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment;

- determine the nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and the degree to which these impacts (a) can be reversed; (b) may cause irreplaceable loss of resources, and (c) can be avoided, managed or mitigated; and
- identify suitable measures to avoid, manage or mitigate identified impacts.

In terms of legal requirements, a crucial objective of the EIA Report is to satisfy the requirements of EIA Regulations in respect to obtaining an Environmental Clearance Certificate. This section regulates and prescribes the content of the Scoping Report and specifies the type of supporting information that accompanies the submission of the ECC application to the Competent Authority.

2. PROJECT DESCRIPTION

This section provides an overview of the conceptual operational design and an overview of the project site, operation activities and technology selection process proposed to be undertaken as part of the Reptilia Crocodile Farm and Park operations as illustrated in the operational process flow below. Reptilia Crocodile Farm and Park will be the primary producer and will directly collect the crocodile's skin and sell it to the tanneries. Thereafter, the tanneries shall process the skin and supply it to the fashion industry who shall produce the finished goods that can be purchased by the ultimate fashion-conscious individuals.



The proposed project represents an opportunity for advanced crocodile ranching to secure social, economic viable and environmentally friendly long-term crocodile farming. The proposed activity entails both the construction of crocodilian ranching and associated infrastructure and the operation and maintenance of these infrastructures thereof.

In particular, the proposed area earmarked for construction activities shall be required thinning out vegetation and levelled mechanical before the installation of all supporting infrastructure which includes, but is not limited to:

- Boundary fences;
- Administration block (consisting of office space, parking area, ablutions);
- Water supply pipelines and electricity lines;
- Sub-division and creation of crocodile ponds; and
- Installation of the wastewater treatment system.

2.1. SITE SELECTION

Reptilia Crocodile Farm and Park, proposed project operation is to be undertaken within the Usakos Town Council jurisdiction, on a three (3) hectares portion of the remainder portion of farm Usakos and Townlands No. 93 (Appendix A). As derived from Usakos Town Planning Scheme, the land-use in the surrounding area is mainly variant, in terms of both scale and type of development, which includes, but is not limited to, agricultural plots.

The site is mainly accessible via the B2, a major road highway that runs east-west between the major seaport of Walvis Bay and the nation's capital Windhoek, and then by an informal gravel road for about 500 m from B2 road. Consideration for the site selection included but was not limited to, therefore, accessibility and equally the proximity of the site to the key essential infrastructure required to enable the sustainable operation, especially, power and water supply. Other key site selection factors are land availability, proximity to sensitive receptors, topography, risks and potential or current land use conflict.

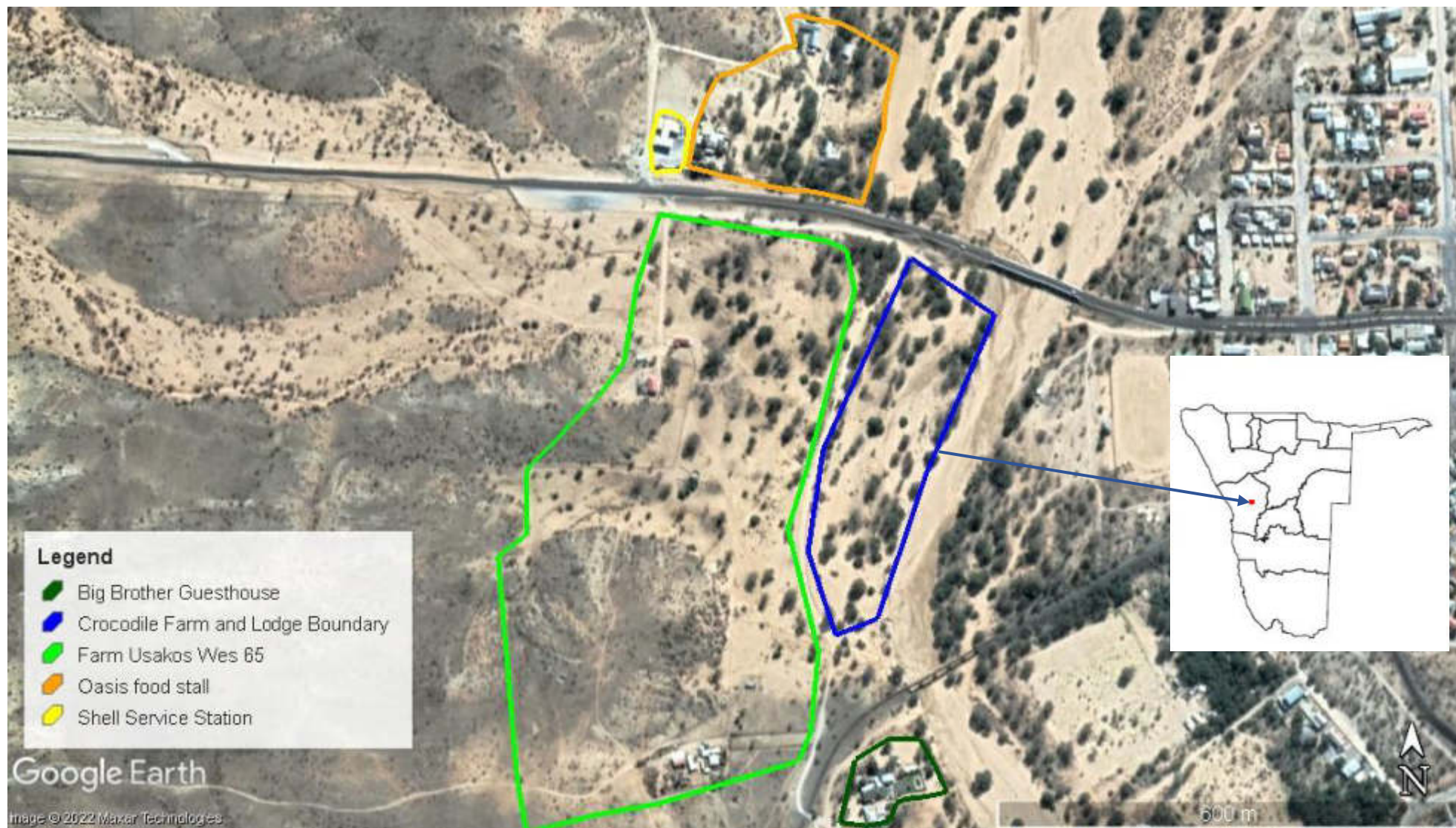


Figure 2: Approximate proposed Reptilia Crocodile Farm and Park project site (light blue polygon) south-west of the Khan River in Usakos

In terms of water sources, the proposed activity intended to utilise approximately 10 – 20 cubic meters per day, which will be supplied by Usakos Town Council, but also supplemented by 2 – 3 boreholes that shall be drilled. Groundwater and surface water (only during the rainy season) are sourced from ephemeral river channels and banks. The proposed development is located in the aquifer potential, which reflects more or fewer rainfall patterns that are decreasing westwards. Even though the knowledge of the aquifer is limited, due to the low number of boreholes currently being monitored, the proposed activity is unlikely to have a significant water consumption in the area.

Usakos area and Erongo Region relies on the underground water, with a large part within the Erongo water basin and within the Omaruru and Swakop catchment areas. The major ephemeral rivers are Omaruru, Khan and Swakop Rivers. The proposed project is located adjacent to the Khan River banks within the Omaruru catchment, which has a low-to-moderate productive aquifer.

2.2. KEY COMPONENTS OF REPTILIA CROCODILE FARM AND PARK OPERATIONS

In particular, the area earmarked for construction activities shall be cleared of the current building rubbles, thin-out unprotected vegetation that is likely to interfere with the construction and operational activities and levelled mechanically before the installation of all supporting infrastructure which includes:

- Boundary fences
- Administration block (consisting of office space, parking area, ablutions)
- Water supply pipelines and electricity lines
- Sub-division and creation of crocodile ponds; and
- Installation of the wastewater treatment system.

2.3. DESCRIPTION OF THE PROPOSED PROJECT OPERATIONS

2.3.1. Overview of the crocodile ranching operation

Reptilia Crocodile Farm and Park CC shall operate in accordance with the “Ranching Model” for crocodilian production as defined by CITES as well as the Namibian Crocodile Management Plan. The “Ranching Model” for crocodilian production is an internationally accepted method of crocodile ranching that safeguards the population status of wild crocodiles through a policy of sustainable use. Annual egg collection permits shall be applied for and issued against quotas by the Ministry of Environment, Forestry and Tourism (MEFT) as well as other lines of the competent authority which shall administer the program. To monitor the impact of the industry on wild crocodile populations, detailed statistical returns pertaining to egg and hatchling numbers shall be submitted annually to the MEFT as well as other competent authorities on completion of the egg collection and incubation season.

2.3.2. Envisaged operational activities (Crocodile ranching)

The envisaged operational activities shall include, but are not limited to the following (Figure 3):

- Ranching (egg collection): Although some eggs shall also be sourced “on-farm” through breeding programs. The proponent shall enlist the inhabitants of communities where the Nile Crocodiles occurs naturally in its habitat, namely within the Kavango East Region, Kavango West Region and parts of the Zambezi Region to collect eggs for the farm – this is known as incentive-driven conservation programs for crocodilians. The egg collection shall occur from July through November every year.
- Hatching: Eggs are transferred to on-farm incubators until hatched where temperature and humidity are carefully controlled to ensure every success.
- Growing Out: Juvenile crocodiles are typically grown for 1.5 years or until approximately 1.2 m long. The size of the grown-out crocodile shall depend on the intended use. For example, skins produced for a handbag are grown to a belly width of approximately 40 cm (1.2 m long crocodile). The size required varies with the fashion of the day, for example, larger or smaller handbags. Whereas, very large crocodiles, for example, greater than 1.2 m long can be used for pants or a suit.
- Breeding Program: Crocodiles are also grown and maintained for on-farm breeding and crocodile-based tourism. Farm associated tourism includes crocodile viewing, crocodile feeding, and crocodile shows performed by trained professional wranglers.
- Harvesting - Once ready for slaughter the crocodiles are sent to the abattoir where skins shall be removed, and all body parts shall thereafter be separated for sale or value-adding. The skins hold the highest commercial value followed by meat and other products.

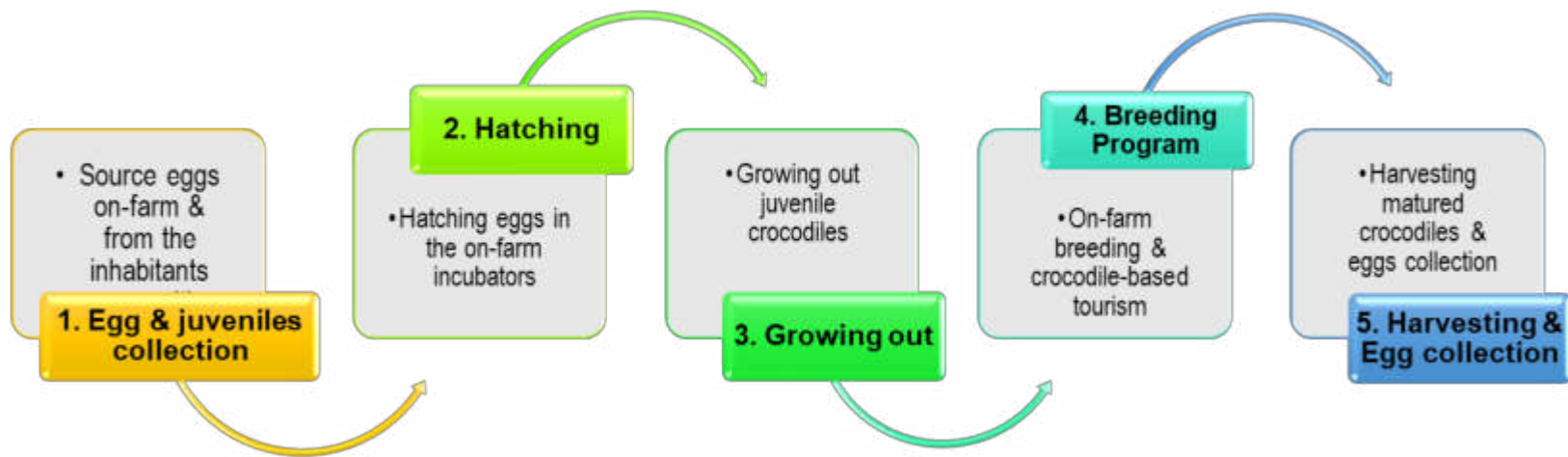


Figure 3: The envisaged operational process for the proposed crocodile ranching, suggesting a development that can be sustained over the years.

2.3.3. Operational output for the crocodile ranching

Skins derived from the Saltwater and the Nile crocodiles are internationally regarded by fashion product manufacturers as the most desirable crocodilian skins. Skins are used in the manufacturing of fashion accessory products, such as high-end handbags.

- Large-sized crocodile skin;
- High in quality of skin;
- Ethical and environmentally responsible farming practices;
- As a result, numerous reputable fashion brands have invested in crocodile farms, allowing them to control more of their product supply chain.

Eggs shall be harvested from the wild in line with Regulations and close overview within the Crocodile Farm industry. To collect eggs, an agreement with Traditional Authorities must be in place and a valid license must be possessed. If eggs are not collected by the farmers themselves, eggs are purchased from licensed collectors.

Hatchlings are on occasion sourced from the wild, but most are hatched and reared in captivity to be used for skins. Hatchlings can be traded to other farms as well.

Crocodile meat shall be harvested for both human and pet consumption. It is sold domestically and exported internationally.

Other body parts shall include:

- Teeth and bones for jewellery;
- Chinese medicine;
- Ornaments such as claws, skulls and skeletons.

Limited quantities of crocodile products that are manufactured overseas shall be sold via retail outlets, predominantly to tourists.

2.3.4. Eggs incubation and temperature control

The female Nile crocodile is an attentive parent, and, after laying up to around 60 eggs, will cover the nest with sand and guard it for the entire incubation period, around 90 days. Sex in the Nile crocodile is determined by the temperature at which the eggs are incubated, with females produced below 31 degrees Celsius, and males at above 31 to 34 degrees Celsius – and the proposed project ambient temperature is within the same ranges.

2.3.5. Hatching and caring for crocodilian

It is known that when about to hatch, the young (crocodile fingerlings) make a “peeping” noise, which encourages the female to excavate the nest. The female then gathers the hatchlings in her mouth and transports them to the water, where they remain in a group for several months, protected by the female. Amazingly, the Nile crocodile’s powerful jaws can be used incredibly gently, and the female can even help hatchlings emerge by carefully rolling and squeezing the eggs in her mouth. However, despite this care and vigilance, nests may be raided by a variety of other animals, and hatchling crocodiles are very vulnerable to predation. Young female Nile crocodiles reach sexual maturity at a body size of around 2.6 metres, and males at 2.7 to 3.1 metres, achieved at around 12 to 15 years old.

2.3.6. Feeds and feeding of crocodilian

Crocodiles are fed on diets of red meat, poultry or poultry by-products such as chicken heads or necks. Fresh meat contains large amounts of water, which itself is a cost to farmers. To get a more accurate comparison the different diets need to be compared on a dry matter basis. This is where the potential for manufactured feed can be realized along with a better supply and use of nutrients to the animal. Savings will also come via reduced transportation and a reduction in storage costs. A typical juvenile crocodilian consumes about 15 – 20 percent of its body weight in food every week at a constant temperature of around 32 Degrees Celsius. However, in outdoor pens, food consumption varies greatly depending on ambient temperature and season.

2.3.7. Housing of crocodilian

A crocodile farm has buildings and management systems that provide basic standards of care for crocodiles, including incubation and neonatal treatment, maintenance of a high metabolic rate; and elimination of stress. A typical housing and yard dimensions required by crocodiles vary with the geographic location of the crocodile farm, age of the crocodiles, management practices to be employed, stocking density and the likely occurrence of disease. Pens are constructed to prevent unwanted movement of crocodiles into or out of enclosures. Generally, a farm design includes facilities that allow for the isolation and treatment of individual or limited numbers of crocodiles for extended periods and allow treatments to be administered in the water or food.

2.3.8. Diseases and their control

Crocodile ranching requires an effective program in place to prevent infectious disease and internal and external parasitism. It is mostly prevalent among hatchlings and particular attention is always paid to all aspects of the management of this age group. Signs of ill-health include separation from other crocodiles, lethargy, refusal to eat, changes in faeces or urine, vomiting, coughing, panting, lameness, and swellings on the body or legs. Viruses, chlamydia (virus-like agents), bacteria, protozoa, fungi and helminth worms have been normally isolated from crocodilians – and some of these infective agents are of significance in farming operations. The farm manager who is unable to identify the causes of ill-health and correct the problem shall seek prompt advice from a veterinary surgeon preferably with experience in the treatment of crocodiles.

In terms of equipment utilization, earthmoving vehicles are required to cater to the ever-growing farming and park activities to aid in habitat building as well as the relocation of large reptiles from smaller sections to larger enclosures. With careful handling and close monitoring, we can increase the hatching of eggs from 70% in the wild to 90% on our farm and the key to achieving this hatching rate, we must make use of state-of-the-art incubators for hatching our eggs, therefore, increasing our chances of reaching production targets efficiently and effectively.

2.3.9. Economic and development impact

Annual income for local communities and the Traditional Authorities in general that are tasked with egg collection (such as the Northern communities along the Kavango River Delta), provides significant economic and social benefits for regional and remote areas. The Northern Traditional Authorities play an important part in the process. This results in less reliance on Commonwealth/State support, greater empowerment to local community groups, opportunities for connection to the country and greater opportunities to maintain and grow social cohesion.

In terms of the environmental conservation and species management, the development and continued presence of the industry, especially that maintains the market and demand for eggs are a key agent in the sustainable management of the Nile Crocodile in Namibia – as such the proposed project will have a significant contribution to the species conservation. Furthermore, the environmental standards and conservation program are to be recognized internationally as best practice that contributes to Namibia being rated as a premium location to source crocodile skins and products worldwide.

The crocodile industry (internationally) is in its infancy with research and development part of normal daily operations. There are world-renowned researchers and farm industry experts who not only work locally but travel internationally to assist industry development worldwide and the proposed project team intends to tap into this valuable resource and offer them the opportunity to contribute to the proposed project in all efforts.

Industry regulations are a common part of the ongoing sustainable management of crocodiles but help to maintain appropriate environmental standards including the humane treatment of animals. The overview of the process from egg collection to the farm and then sale (of the crocodile products) is essential to maintain Namibia's premium crocodile brand. The proponent shall ensure the maintenance of these standards to allow conservation and eventually access to international markets without which significant value would be lost.

2.3.10. Tourism value and employment creation

Brand recognition for Namibia is a key in crocodile ranching, as an iconic animal at both national and international levels and features strongly in many tourism promotions. The proposed project has the potential to contribute, to some extent, through its tourism activities and from its exposure to TV and film documentaries and features. Crocodilian brand recognition adds value at the level to which it may induce further tourism and business opportunities that would not have otherwise occurred without it.

The Namibian crocodile farms, associated tourism venues and industry experts shall bring film and television makers from across the world. This generates economic value not only in terms of the direct expenditure of the film crews when they visit Namibia but also in the further development of the Namibian brand on the international markets.

2.3.11. Compliance with the Convention on International Trade of Endangered Species (CITES)

CITES have an agreement between governments that aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival as a species in their natural range states. Nile crocodiles and Saltwater crocodiles are listed on Appendix II of CITES, being described as species that could potentially become endangered and therefore requires monitoring and management.

Reptilia Crocodile Farm and Park shall be compliant with all the rules and regulations as set out by the CITES convention and other applicable national as well as international legal framework, and best practices, thereby ensuring that ranching is sustainable with crocodiles on a long-term basis.

2.4. PROJECT DEVELOPMENT CYCLE

2.4.1. Construction/installation of associated supporting infrastructure

The construction activities shall take place subsequent to the issuing of an ECC. The construction activities are proposed in Usakos and are expected to extend over a period of between three (3) and six (6) months, depending on unforeseen circumstances such as the COVID-19 pandemic regulations. These assume that normal daylight working hours shall be adhered to in respect to the Labour Act and other applicable regulations. The technical details of the proposed facility as per competent authority requirements are listed in Table 3 and the proposed layout and design outline for the facility is illustrated in Appendix B.

The proposed project has the potential to create job opportunities directly, indirect (through regulation as well as ranching operations). During the construction phase, both skilled and unskilled temporary employment opportunities shall be created. Approximately 80 – 100 shall be hired during the construction phase.

Table 3: Technical details of the proposed facility as required by the Competent Authority

| Component | Description / Dimensions |
|--|--|
| Total Land Area (to be fenced) | 3 Hectares |
| Height of fencing | 2 meters |
| Type of fencing | Clearvu fencing with an electric feature |
| Occupancy | 80 – 100 people |
| Power requirements for all activities | 100kVA three-phase power from Erongo Red and a 100kVA Grid Tied Solar PV system supplement |
| Diesel generator installation for electricity backup | 120kVA diesel generator |
| Diesel requirement for standby diesel generator | 800 litres |
| Water requirements for crocodile ranching | 5 – 10 cubic meters per day |
| The minimum number of crocodiles are expected | 1000 individuals |
| The maximum number of crocodiles are expected | 10 000 individuals |
| Water requirements for the lodge | 10 – 20 cubic meters per day |
| Wastewater treatment system | Containerised and hybrid sewage treatment plants |

The construction-specific activities shall involve the transportation of personnel, construction material and equipment to the site, and personnel away from the site. In terms of site establishment, laydown areas will be required at the outset of the construction phase, as well as dedicated access routes from the laydown areas to the working areas. No new roads shall be created for the proposed project unless approved by the competent authority and the current access road shall be maintained regularly as per agreement with the landowner and or competent authority – and appropriate signage shall be erected, where it is required.

All needed construction materials (different sand and stone aggregate, cement, corrugated iron sheets, beams etc.) shall be sourced from permitted local suppliers as practical as possible. Equally, the basic or utility service shall be obtained from the relevant local authorities through both Usakos Town Council and Erongo Red who are the services providers for the water and electricity respectively.

The layout and design of the crocodilian ranch and associated supporting facilities which mainly consists of boundary fences, administration block (consisting of office space, parking area, ablutions facilities), holding pens, ponds, abattoir, veterinary room, feed stores, wastewater and effluent (Appendix B). The design intends to blend in with the existing natural environment of the proposed project.

Both Water and Electricity will be required for domestic use, construction, maintenance and operation purposes throughout the lifetime of the proposed project. Critically, about (~10 m³ per day) shall be required for both the pre-construction (surface preparation e.g., levelling) and construction. The proponent shall ensure that all water requirements with the Water Resources Management Act No. 11 of 2013 and associated applicable legislations.

Installation of the supporting infrastructure shall be carried out together with all pre-operation activities, power supply lines and other linear infrastructures e.g., water pipelines.

Within the proposed project vicinity, water for consumption is distributed through a system lined through pipelines from boreholes that are located on the banks of the Khan River and its immediate tributaries. Groundwater within the project vicinity is mainly used for domestic and industrial purposes, including well established agricultural developmental plots. The water consumption for the proposed project shall depend on the crocodilian size, lodge occupancy and associated supporting infrastructure which shall be measured by water meters as well as monitored as per Water Act at each offtake/borehole.

The proposed project net and gross water requirements techniques have varying degrees of efficiency, combining the crocodilian ranching system with a modern wastewater and effluent treatment system.

2.4.2. Production Operations and Maintenance of Infrastructure and Equipment

The Reptilia Crocodile Farm and Park key operational activities revolve around the cultivation and sales of the various crocodile products, and these entail the following main activities:

- Crocodile Husbandry;
- Abattoir and tannery;

- Hospitality services; and
- Servicing and maintenances of crocodile farm and lodge implements or equipment.

The predominant land use in the surrounding of the proposed activity, consisting of a combination of agricultural and tourism development, where different systems are adopted to produce various economic initiatives.

Reptilia Crocodile Farm and Park, however, plans to focus on the production of crocodilian ranching and lodging services, therefore the land preparation (including vegetation thinning, where required) shall be conducted manual or mechanically to ensure minimal soil disturbance. As part of Reptilia Crocodile Farm and Park interlinking objectives, vegetation thinning within 100 meters from the watercourse shall be avoided as per Forest Act, No. 12 of 2001 and its associated regulations, unless approved by the landowner and competent authority.

Considering the scale and magnitude of the proposed project, with a projected long-term sustainable socio-economic benefit and environmentally-friendly goals, these goals must be achieved following compliance with all applicable national legislation and international best practices.

In particular, Reptilia Crocodile Farm and Park intend on adopting the “Ranching Model” for crocodilian production as defined by CITES as well as the Namibian Crocodile Management Plan. These shall include the sustainable harvest of eggs, problem animals’ control and sport hunting as per the competent authority permits, which shall be in line with the sustainable principles for conservation efforts.

2.4.3. Decommissioning

The main aim of decommissioning is to return the land to its original, pre-construction condition. Should the unlikely need for decommissioning arise the procedures shall be undertaken in line with the EMP as well as other applicable legal frameworks and the site will be rehabilitated and returned to its pre-construction state as practical as possible.

A closure and rehabilitation plan shall be prepared and submitted to MEFT and other competent authorities for approval before commencing with the on-ground de-commissioning activities. The process shall entail consultations with all relevant stakeholders and consideration for alternative uses of the facilities before demolition of the infrastructure.

3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

This chapter of the Scoping Report provides an overview of the affected or receiving environment for the proposed development and other key receptors within the project vicinity. The receiving environment is understood to include biophysical and socio-economic experts who could be affected by the proposed development or which in turn might impact the proposed development. Even though there were no heritage aspects during the site visit, archaeological description is provided as a precautionary principle if identified.

3.1 BIOPHYSICAL ENVIRONMENT

Namibia is characterized by four land type systems, the Namib Desert, which runs along the entire west coast, northwards into southern Angola; the Succulent Karoo which lies south and extends across the Orange River into South Africa; the Nama Karoo and the Southern Kalahari which extends eastwards across to Botswana. The proposed development location is easily accessible from each land type of system, especially through the Trans-Kalahari route only crosses through three of these, namely the Namib Desert, Nama Karoo and the tree and shrub savannah.

3.1.1 Climatic Conditions

Approximately 22% of Namibia's land is classified as desert (hyper-arid), 70% is classified as arid to semi-arid and the remaining 8% is classed as dry sub-humid (Mendelsohn et al. 2003). The proposed development is located in the Erongo Region, which is known as the coldest region in the country with an annual average high temperature of only 24°C. It is also known to experience several months of the year with warm to hot temperatures continuously above 27 °C. The proposed project is located in the vicinity that has a semi-desert climate, characterised by low rainfall, high evaporation and a large range of temperatures.

The western Erongo Region falls entirely within the Namib Desert, the coastal lowland lying west of the Great Escarpment. The proposed development forms part of central Namib with is composed of four features that have a dominant effect on the climate of the area and enhance its aridity. These are the South Atlantic Anticyclone Cell, the Benguela Upwelling System, the Great Escarpment, and the absence of major topographical features on the 150 km wide plains. Despite several river valleys, Inselbergs, and dunes, the major landscape features are unlikely to influence the macro-climate between the ocean and escarpment. Instead, the relative featurelessness allows steady gradients to develop across Namib from west to east affecting rainfall, fog, humidity, temperature, and wind patterns, as well as daily variations in these parameters. The proposed development occurs in the areas where the summers are long, hot, and partly cloudy; the winters are short, cool, windy, and clear; and it is dry year-round.

3.1.2 Rainfall

Rainfall is highly erratic and unpredictable with an inter-annual coefficient of variation that ranges from about 30% in the north-east to over 100% in the driest areas. Rainfall is very variable and follows no discernible pattern over the years. The most rain falls in late summer between January to April (73%), while some rain falls in winter (22%), with the driest phase in early summer,

September to December (5%). There is a strong west-east gradient of increasing rainfall across Namib. The eastern zone gets some rain in most years (average 87 mm), while rain gets less towards the coast, with an annual average of 15 mm, but more sporadic over space and time (Southgate&Hachfeld, 1996).

Overall, in terms of precipitation, the Usakos area experiences some seasonal variation and an unpredictably annual average rainfall of 100 mm – 200 mm. Dry periods are commonly known to occur from May to September, however, this changes yearly to yearly, which appears to be a climate shift effect. Conversely, most rainfall in the proposed project vicinity occurs in January to March and December (Mendelsohn *et al.*, 2002).

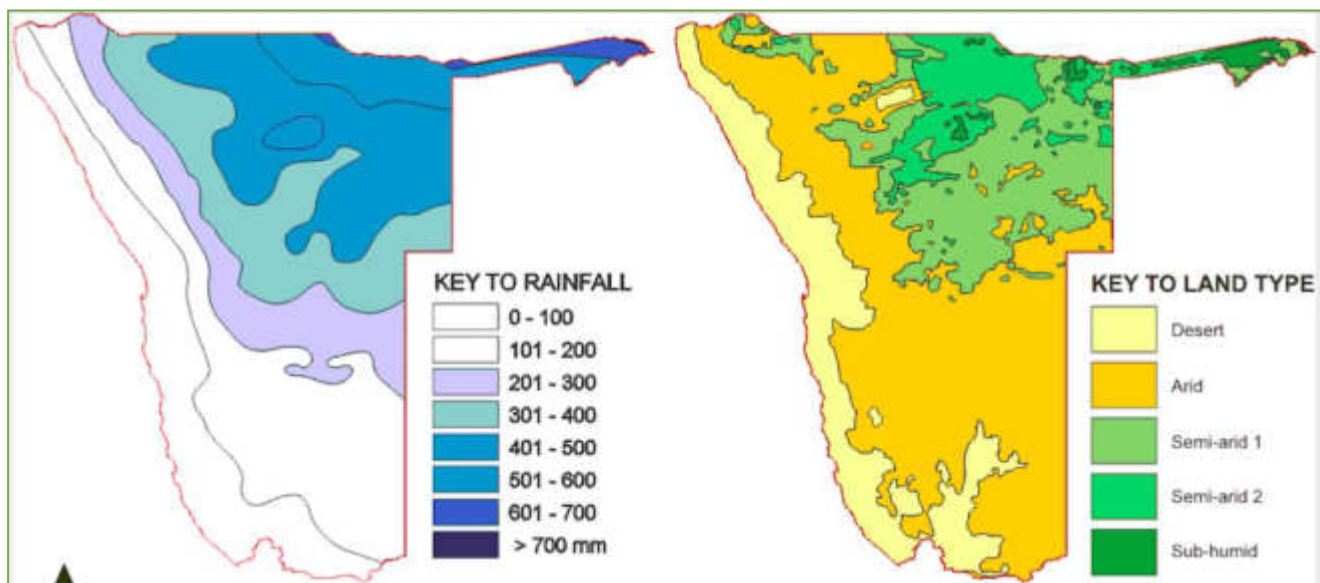


Figure 4: Annual rainfall variation across west-to-east gradient a gradient and across the different biomes

3.1.3 Wind and temperature

Many complex factors influence wind with respect to season, time of day, topography, and distance from the coast. Wind can occur at any time of day, but the highest average annual wind speeds are recorded in the afternoon hours, for example, between 12h00-20h00. Within the proposed project vicinity, the winds are predominantly SSE and SE (40-50% of the time), with some northerly wind in summer (8-10% of the time), and 10-15 days of easterly berg winds in winter (Lindesay&Tyson, 1990).

Average annual air temperature within the project region increases from the coast (15°C) to the escarpment in summer of approximately (36°C) without strong seasonal variation, with December as the hottest month (Mendelsohn *et al.*, 2002). On a daily basis, air temperature fluctuates only a little at the coast, with extreme fluctuations further inland, declining slightly near the escarpment. The maximum daily surface temperatures in mid-afternoon do change with the season from 60°C in summer to 48°C in winter, a seasonal trend that can be traced down to 30 cm depth into the soil.

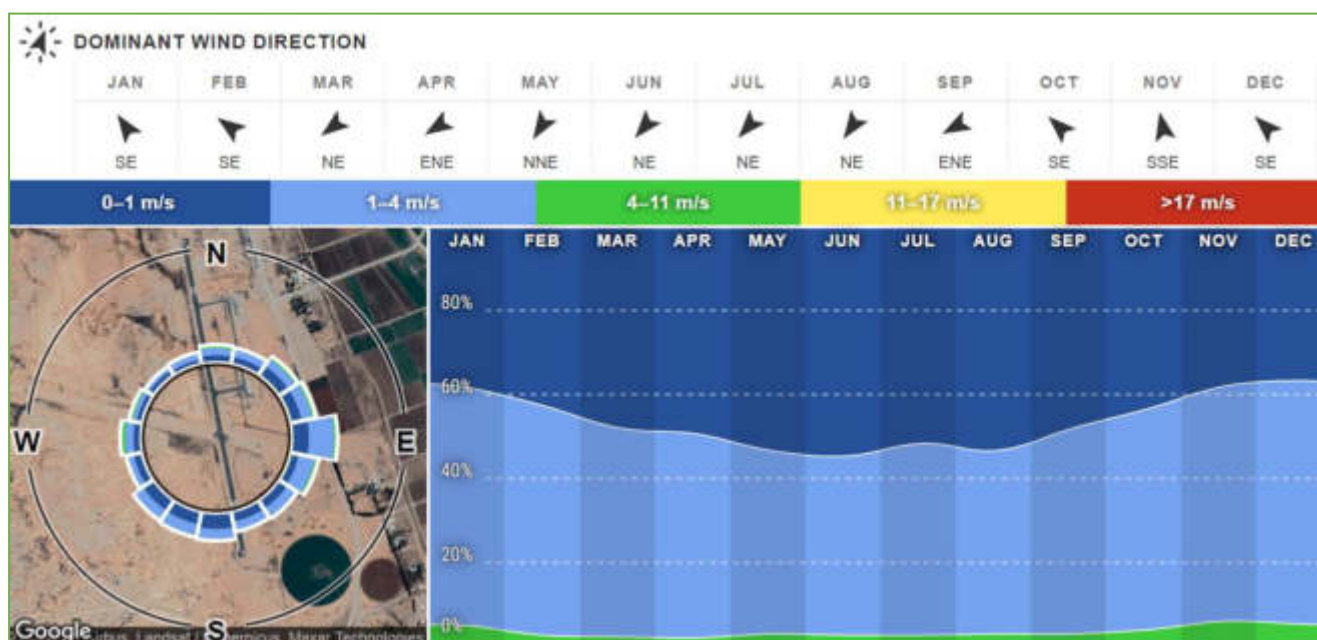


Figure 5: Minimum and maximum annual average temperatures and wind-rise direction and speed at the proposed development.

3.1.4 Fog

Fog is a more reliable and predictable occurrence in western Namib than rainfall. It is a very important source of water for plants, animals, potentially for humans, and soil formation and rock weathering processes. Furthermore, it affects visibility for traffic at sea, on roads, and in the air. Fog precipitation increases from the coast inland, up to some 30-60 km away from the coast, and beyond this, it declines strongly, although it does occasionally penetrate up to the escarpment. The seasonal distribution of fog differs between the coastal and inland foggy zones.

3.1.5 Sunshine

The sun shines for 84% of all daytime hours in the interior, including the proposed project vicinity, compared to 47% at the coast. The coastal sky is often obscured by an approaching fog bank. Solar radiation varies from 24 MJ.m⁻² in summer to 14 MJ.m⁻² in winter.

3.1.6 Hydrology

Usakos town is located on the banks of the Khan River, 140 kilometres north-east of Swakopmund in the Erongo Region of Namibia. Due to the aridity of the region as well as the proposed project vicinity, agricultural potential is limited, however, with appropriate environmental and socio-economic assessment, such development can be deemed viable. The oases of ephemeral rivers are virtually some of the areas where pastoralism and small-scale farming can be practised, however, this practice is limited within the proposed project area, because it is located within the townland jurisdiction. In general, the region relies on runoff of water from the distance of the western part interior of Namibia, where efforts are increasing to retain the water. The current lack of a perennial water source for industry within the area could limit the development capacity, however, due to the appropriate measures as stated in the EMP, this is deemed not significant as per the proposed project extent and scale. Fog reduces visibility for traffic, especially at the

coastal towns, shall not be considered as a source of water for human consumption, but rather for specific fauna and flora once it reaches the proposed project.

3.1.7 Geology

The proposed project is located within the arid environmental zone which is known to have little topsoil and vegetation to cover the underlying aquifer. However, there are occurrent long and exciting periods of flood history, which might have contributed to the diversity of landscape and different rock formations within the proposed developmental area. This great landscape and rock formations event split apart several times as a consequence of the tectonic movement of the earth crusted.

The geology of the proposed project area is dominated by the Damara granite and Swakop group, with isolated occurrences of dolerite intrusions. The proposed project is located in medium soil fertility which can affect the structure of plant community, for example, individual species remain stunted in isolated areas.

Usakos lies within the edge of the Central Namib region, which extends from the east to the coastal area of the Atlantic Ocean to the Windhoek interior to the west, which acts as the boundaries of the Ugab and Kuiseb Rivers in northern and southern regions. Whereas, several catchments of the Swakop and Khan Rivers, including the Usakos, have a moderate yield which is encountered in the marble and schist aquifers around Karibib and the calcrete aquifer in the Kranzberg area at Usakos which is located within the project vicinity. Groundwater in the area of Usakos is sourced from the Khan River and its tributary and the Aroab River, which is also called the Kranzberg River.

3.1.8 Terrestrial Ecology and Sensitivity

Namibia's vegetation and biomes are classified into five major types, these are, the Namib Desert, Nama Karoo, Succulent Karoo and the Trees and Shrub savannah. Within the proposed project vicinity, the overall terrestrial diversity and endemism of plants and animals are low, probably due to lower rainfall and lack of wetlands, when compared to elsewhere in the country.

In terms of natural fauna and flora, Usakos is located in the *Vachellia* tree-and-shrub savanna sub-biome. Vegetation species within the proposed project vicinity include, but are not limited to ambarella thorn (*Vachellia tortilis*), Ana tree (*Faidherbia albida*), Prosopis (*Prosopis glandulosa*), shepherd tree (*Boscia albitrunca*), mustard bush (*Salvadora persica*), camel thorn (*Vachellia erioloba*), yellow-bark vachellia (*Vachellia erubescens*), sweet-thorn (*Vachellia karroo*), black-thorn (*Vachellia mellifera*), bushmen grass (*Schmidtia kalahariensis*), six-weeks three-awn glass (*Aristida adscensionis*), red-thorn (*Vachellia reficiens*), lovegrass (*Eragrostis nindensis*), trumpet thorn (*Catophractes alexandri*) and soft-feather pappus grass (*Enneapogon cenchroides*) (Goldblatt, et al., 1998).

In general, wildlife diversity in Erongo Region, in which the proposed project is located includes blesbok (*Damaliscus pygargus phillipsi*), warthog (*Phacochoerus africanus*), wildebeest (*Connochaetes*), steenbok (*Raphicerus campestris*), ostriches (*Struthio camelus*), baboons (*Papio*), desert kudu (*Tragelaphus strepsiceros*), springbok (*Antidorcas marsupialis*), gemsbok (*Oryx gazella*), eland (*Taurotragus oryx*), Impala (*Aepyceros melampus*), mountain zebra (*Equus zebra hartmannae*), waterbuck (*Kobus ellipsiprymnus*), burchell's zebra (*Equus quagga burchellii*), hartebeest (*Alcelaphus buselaphus*), giraffe (*Giraffa*) and damara dik-diks (*Madoqua kirkii*).

In terms of the avifauna within the proposed project vicinity, there are nearly 200 varieties of bird species are recorded in the area, including the yellow-billed hornbill (*Tockus leucomelas*), the colourful lilac-breasted roller (*Coracias caudatus*), and crimson bou boo (*Laniarius atrococcineus*) among others (Mendelsohn et al., 2009).

3.2 SOCIO-ECONOMICAL ENVIRONMENT

3.2.1 Demographic Profile

With about 2.4 million people human population, Namibia has one of the lowest population densities in the world per unit area (km²) with an average of about 2.5 people (NSA, 2013 and NPC, 2017). Conversely, the population is unevenly distributed with approximately 35% living in towns and villages.

In terms of the economic environment, Erongo Region has two (2) major urban centres (Swakopmund and Walvis Bay) which are comprised of more than 50% of the region's economic base which contributes more than 25% to national GDP (SPC, 2007).

About 11% of people in the region depend on pensions for cash income, as such the proposed project could contribute cash income – especially for young men and women through employment opportunities. It is evident that the current industrial activities are limited and based on fish processing, mining and a few localised manufacturing in the region.

The proposed project occurs within Usakos, which is also known as a railway town with Small-to-Medium Enterprise (SME) activities that are limited and concentrated mainly in trade and services with a lesser extent in manufacturing. The potential of economic growth of the SME sector in the region can be interlinked with the manufacturing and transport as well as the fishing, tourism, and mining sectors – as such these form a complementary business vision that is in line with the proposed project objectives.

The proposed project is also located within the marginalized community vicinity and under-developed land to such an extent that there is little access to the mainstream economy or alternative livelihood opportunities. On other hand, potential significant crop and animal production are not viable due to the aridity, but the potential for agricultural development is believed to result from commercial exploitation of non-traditional, high-value agricultural products, such as the proposed project.

In terms of the infrastructure necessary for economic development, especially, for logistical purposes, the proposed project is located along the Walvis Bay Corridor which connects the

harbour to the rest of Southern Africa via the Trans-Caprivi and Trans-Kalahari Highways. The proposed project vicinity has also experienced an increasing volume of tourism through the region, which forms an important link between the Etosha National Park, coastal towns and other well-established tourist attraction facilities in the Namibia Sand Sea such as Sossusvlei.

3.2.2 Archaeology and Heritage Profile

During the site visit and assessment, no archaeological and heritage sites are known to be located within the proposed project boundary. However, a burial site was observed on Farm Trekkopje No. 120, known as the Trekkopje Cemetery, well-preserved, fenced off and well documented by the Commonwealth War Graves Commission as a heritage site. The site is protected by laws in Namibia such as the National Heritage Act of 27 of 2004. In the unlikely event that artefacts are found in the proposed project area, it must be noted that a search and find procedure should be followed in accordance with the stipulations of the Namibian National Heritage Act.

4. APPROACH TO EIA PROCESS AND PUBLIC PARTICIPATION

In this chapter, the proposed project presents the approach to the Environmental Scoping Assessment process, for operations and gives particular attention to the legal context and guidelines applicable to this assessment. The assessment approach and the steps in the Public Participation component of this scoping report were undertaken in accordance with Regulations 29 and 30 of Government Notice No. 30 of 2012. Overall, this section highlights information including the approach to stakeholder engagement, identification of issues, an overview of relevant legislation, and key principles and guidelines that provide the context for this scoping assessment process. Hence, in a nutshell, the purpose of the environmental assessment is to:

- Address issues that have been identified through the Scoping Process;
- Assess alternatives to the proposed activity in a comparative manner;
- Assess all identified impacts and determine the significance of each impact; and
- Recommend actions to avoid/mitigate negative impacts and enhance benefits.

4.1 OVERVIEW OF APPROACH FOR COMPILING THE SCOPING AND EMP REPORTS

The objectives of the environmental scoping assessment are noted in Section 1 of this Report. Section 6 of this Scoping Report includes a summary of the findings, the overall conclusions and the recommendations. The Scoping Report shall be made available for a 30-day I&APs and authority review period, as outlined in the EMA Regulations of 2012. As part of the public participation process, the background information document (BID) was compiled and submitted to all the registered I&APs (Appendix C). Adverts were put in two local newspapers (the Windhoek Observer, **Friday, 02nd July and Monday, 05th July 2021**) and The Confidente (**08th July and 24th July 2021**), and responses or inputs received are attached in Appendix C.

The Scoping Report includes an EMP (Appendix D), which is based broadly on global environmental management principles and embodies an approach of continual improvement and mitigation actions that are applicable to the proposed project.

These are drawn primarily based on the identified potential impacts for both the construction and operational phases of proposed operations. If the project components are decommissioned or re-developed, this shall be conducted in accordance with the relevant environmental standards and clean-up/remediation requirements applicable at the time.

4.2 LEGAL CONTEXT FOR THE EIA

In accordance with the provisions of the EIA Regulations No. 30 of 2012 gazette and the Environmental Management Act, No. 7 of 2007, the activity to be undertaken by Reptilia Crocodile Farm and Park may not be undertaken without an Environmental Clearance Certificate.

4.3 LEGISLATION AND GUIDELINES PERTINENT TO THIS ENVIRONMENTAL ASSESSMENT

Key Acts and policies currently in force include, but are not limited to:

- Namibian Constitution, First Amendment Act 34 of 1998;
- Namibia's Environmental Assessment (EIA) Policy for Sustainable Development and Environmental Conservation (1995);
- Environmental Management Act, No. 7 of 2007;
- Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012);
- Forestry Act, No. 12 of 2001;
- Nature Conservation Ordinance Act, No.4 of 1975;
- Water Act, No. 54 of 1956;
- Town Planning Ordinance Act, No. 18 of 1954;
- Townships and Division of Land Ordinance Act, No. 11 of 1963;
- Namibia Agriculture Policy of 2015;
- Namibia Vision 2030.

The main source of legislation is the Namibian constitution which makes provision for the creation and enforcement of applicable legislation, including the internal best practices. In this context and in accordance with its constitution, Namibia has passed numerous laws intended to protect the natural environment and mitigate adverse environmental impacts.

Namibia's policies provide the framework for the applicable legislation. Whilst policies do not often carry the same legal recognition as official statutes, policies can be and are used in providing support to legal interpretation when deciding cases.

4.3.1 Environmental Management Act No. 7 of 2007

The Environmental Management Act No.7 of 2007 aims to promote the sustainable use of natural resources and provides the framework for the environmental and social impact assessment, demands precaution and mitigation of activities that may have negative impacts on the environment and provision for incidental matters. Furthermore, the act provides a list of activities that may not be undertaken without an environmental clearance certificate.

The purpose of the Environmental Management Act is to:

- a) Ensure that people carefully consider the impact of developmental activities on the environment and in good time;
- b) Ensure that all interested or affected people have a chance to participate in environmental assessments;
- c) Ensure that the findings of environmental assessments are considered before any decisions are made about activities that might affect the environment (Figure 6).

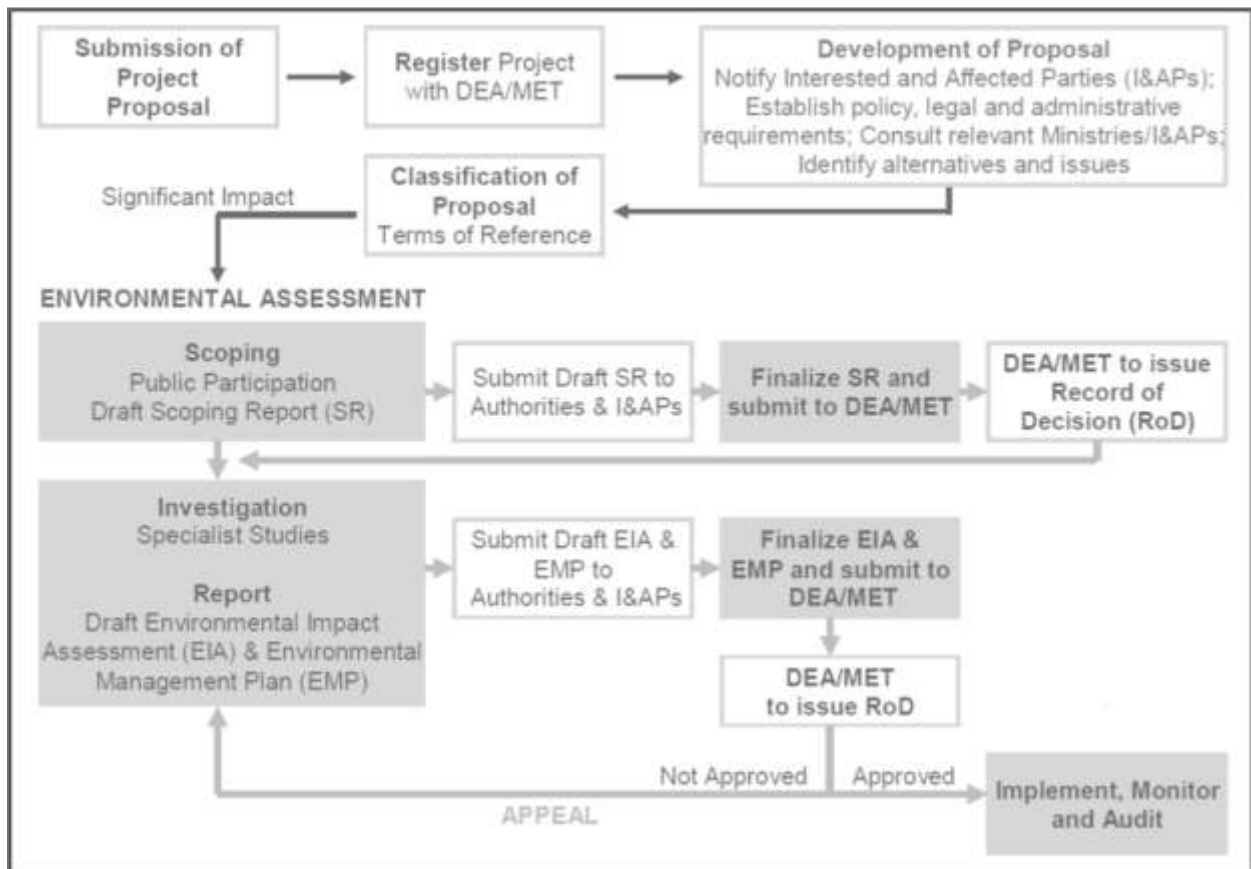


Figure 6: Illustration of the environmental assessment process in Namibia (Source: Risk Based Solution)

4.3.2 Environmental Assessment Policy (1995)

The Environmental Assessment Policy for Sustainable development and Environmental Conservation emphasizes the importance of environmental assessments as a key tool towards implementing integrated environmental management. It set out an obligation to Namibians to prioritize the protection of ecosystems and related ecological processes. The proposed project is in line with the Namibian Nile Crocodile Management Plan which aims to conserve and manage the national crocodile population at biologically viable levels. The crocodile population is consistent with the demands imposed and opportunities offered by the larger socio-economic setting in which crocodiles occur in Namibia.

The policy subjects all developments to environmental assessment and provides a guideline for the Environmental Assessment. In addition, the policy also advocates that Environmental Assessment take due consideration of all potential impacts and mitigations measures should be incorporated in the project design and planning stages as practical as possible.

4.3.3 The Water Act No. 54 of 1956

The Water Act consolidate and amend the laws relating to the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. This allows the competent authority to ensure the provision for the control, in certain respects, of the use of water for

certain purposes; for the control of certain activities on or in water in certain areas; for the control of activities which may alter the natural occurrence of certain types of atmospheric precipitation; for the control, in certain respects, of the establishment or the extension of townships in certain areas; and for incidental matters.”

It additionally controls the disposal of wastewater and effluent and it is a criminal offence to:

“Pollute fresh or seawater in a way that makes the water less fit for any purpose for which it is or could be used by people, including use for the propagation of fish or other aquatic life, or use for recreational or other legitimate purpose”. The proposed project planned to utilize the modern wastewater and effluent treatment system, for example, the containerised and hybrid sewage treatment plants.

4.3.4 The Forest Act No. 12 of 2001

The Forest Act, No.12 of 2001 allows for the declaration of protected areas in terms of soils, water resources, plants and other elements of biodiversity. This includes the proclamation of protected species of plants and the conditions under which these plants can be disturbed, conserved, or cultivated. Even though the proposed project is located in the town council jurisdiction, whereby the directorate of forestry does not have full control, the proponent shall only thin out vegetation that will interfere with the development and a permit for removal of protected vegetation shall be in place.

4.3.5 Nature Conservation Ordinance No. 4 of 1975

The Nature Conservation Ordinance (4 of 1975) provides for the declaration of protected areas and protected species.

4.3.6 Labor Act No. 11 of 2007

Construction safety is regulated under the Health and Safety Regulations under the Labour Act. The health and safety framework in Namibia regulates the following aspects:

- Construction safety;
- Electrical safety;
- Machinery safety;
- Hazardous substances;
- Physical hazards and general provisions;
- Medical examinations and emergency arrangements;
- Rights and duties of employees.

4.3.7 Water Resources Management Act (No. 24 of 2004), even though it is not implemented yet.

The purpose of this Act is to broadly control the use and conservation of water for domestic, agricultural, urban and industrial purposes; to control, in certain respects, the use of seawater; to control certain activities on or in water in certain areas; and to control activities which may alter the natural occurrence of certain types of atmospheric precipitation.

4.3.8 Pollution Control and Waste Management Bill which is the guideline only

Part 7 of the bill 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-section (2), of the presence and quantity of those substances.

The competent authority for 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.

4.3.9 Public Health Act No. 36 of 1919

Section 111 it is the duty of every local authority to take all lawful, necessary and reasonably practical measures for preventing the pollution to endanger the health of any supply of water within its district and to take measures against any person so polluting any such supply.

Section 119 states that 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.

Section 132 empowers the Minister to make regulations regarding, inter alia, the drainage of land or premises, the disposal of liquids and the removal and disposal of rubbish, refuse, manure and waste matters as well as regarding the establishment and carrying on of factories or trade premises which are liable to cause offensive smells or effluvia or to discharge liquid or other material liable to cause such smells or effluvia or to pollute streams and prohibiting the establishment or carrying on of such factories in unsuitable localities.

4.3.10 Other Legal Requirements

In addition to the EMA and the Environmental Assessment Policy, there exist other regulatory frameworks that MDL must comply with. This is due to the supporting infrastructure that is needed to complement the proposed logistics hub. As such, it will be required to obtain additional specific permits for the supporting infrastructure as listed in table 4 below. The process of obtaining the additional permits can be undertaken concurrently with the EIA process.

4.3.11 Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (No. 36 of 1947)

The purpose of this Act is to regulate or prohibit the importation, sale, acquisition, disposal or use of fertilizers, farm feeds, agricultural remedies and stock remedies.

4.3.12 Biosafety Act (No. 7 of 2006)

The Act provides for measures to regulate activities involving the research, development, production, marketing, transport, application and other uses of genetically modified organisms and specified products derived from genetically modified organisms.

4.3.13 Precautionary and Polluter Pays Principles

The Precautionary Principle is worldwide accepted when there is a lack of sufficient knowledge and information about proposed development possible threats to the environment. Hence if the anticipated impacts are greater, then a precautionary approach is applied. Equally, the Polluter Pays Principle ensures that the proponent takes responsibility for their actions. Hence in cases of pollution, the proponent bears the full responsibility and cost to clean up the environment.

4.4 PRINCIPLES FOR PUBLIC PARTICIPATION / CONSULTATION

The Public Participation Process (PP) for this Scoping Process was driven by a stakeholder engagement process that includes inputs from authorities, I&APs and the project proponent. In respect to provisions of the EIA Regulations, “Public Consultation” means a process referred to in regulation 21, in which potential IAPs are allowed to comment on or raise issues relevant to, specific matters. This results from the requirement that people have a right to be informed about potential decisions that may affect them and that they must be allowed to influence those decisions. Effective public participation also improves the ability of the competent authority to make informed decisions and results in improved decision-making as the view of all parties are considered.

Contrary, it is important to recognize and highlight two key aspects of public participation which must be considered at the outset:

- There are practical and financial limitations to the involvement of all individuals within a PPP. Hence, public participation aims to generate issues that are representative of societal sectors, not each individual. Consequently, the PPP is designed to be inclusive of a broad range of sectors relevant to the proposed activity.
- The PPP shall aim to raise a diversity of perspectives and will not be designed to force consensus amongst I&APs. Certainly, diversity of opinion rather than consensus building is likely to enrich ultimate decision-making. Therefore, where possible, the PPP will aim to obtain an indication of trade-offs that all stakeholders (i.e., I&APs, technical specialists, the authorities and the development proponent) are willing to accept with regard to ecological sustainability, social equity and economic growth associated with the project.

4.5 PUBLIC PARTICIPATION PROCESS

The key steps and or approach adopted for the Scoping assessment and EMP has been confirmed with MEFT-DEA through the registration of the proposed activity/operations on their online environmental assessment system.

All advertisements and notification letters etc. served to notify the public and organs of state, on both the request for registration as I&APs and of the availability of the Scoping and EMP reports for an opportunity to comment or provide input on the reports. Despite the national Lockdown due to the COVID-19 regulations, which affected the possibility for public meetings, adverts were placed consecutively (at 14 days interval) in two local newspapers the **Windhoek Observer, Friday, 02nd July** and **Monday, 05th July 2021**) and **The Confidente (08th July and 24th July 2021)**, in order

to notify and inform the public of the proposed projects and invite I&APs to register. In addition, the public participation process was extended until **30th August 2021**.

The correspondence sent to or received from I&APs during the Scoping process have been included in Appendices C.

4.6 AUTHORITY CONSULTATION DURING THE EIA PROCESS

Authority consultation is integrated into the PPP, with additional one-on-one meetings held with the lead authorities, where necessary. A pre-application meeting was scheduled with the relevant competent authorities. During the Scoping phase, the following authorities were identified and consulted for consultation:

- Department of Environmental Affairs, Ministry of Environment, Forestry and Tourism;
- Usakos Town Council; and;
- Ministry Agriculture, Water and Land Reform.

4.8 APPROACH TO IMPACT ASSESSMENT

Potential environmental impacts were identified through both desktop literature review and consultation with I&APs, regulatory authorities, specialists and Mr. Titus Shuuya. In the case of social impacts, the assessment focused on third parties only (third parties include members of the public and other local and regional institutions) and did not assess health and safety impacts on workers because the assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

The identified environmental and socio-economic impacts have been discussed under issue headings in this report. These include the identified potential impact assessment for the proposed project cycle such as the construction, operational, decommissioning and closure phases, as practical as possible.

Mitigation measures to address the identified impacts are discussed in this section and included in more detail in the EMP report (Appendix D). In most cases, unless otherwise stated, these mitigation measures have been taken into account in the assessment of the significance of the potential mitigating impacts.

The criteria used to assess the impacts and the method of determining the significance of the impacts is outlined in

Table 4. This method complies with the method provided in the Namibian EIA Policy document and the draft EIA regulations. **Part A** provides the approach for determining impact consequence (e.g., combining severity, spatial scale and duration) and impact significance (e.g., the overall rating of the impact). Impact consequence and significance are determined from **Part B** and **C**. The interpretation of the impact significance is given in **Part D**. Where, both mitigated and unmitigated scenarios are considered for each impact.

Table 4: Criteria for Assessing Impacts

| PART A: DEFINITION AND CRITERIA | | |
|--|--|--|
| Definition of SIGNIFICANCE | Significance = consequence probability | |
| Definition of CONSEQUENCE | Consequence is a function of severity, spatial extent and duration | |
| Criteria for ranking of the SEVERITY/NATURE of environmental impacts | H | Substantial deterioration (death, illness or injury). Recommended level will often be violated. Vigorous community action. Irreplaceable loss of resources. |
| | M | Moderate/measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints. Noticeable loss of resources. |
| | L | Minor deterioration (nuisance or minor deterioration). Change not measurable/will remain in the current range. Recommended level will never be violated. Sporadic complaints. Limited loss of resources. |
| | L+ | Minor improvement. Change not measurable/will remain in the current range. Recommended level will never be violated. Sporadic complaints. |
| | M+ | Moderate improvement. Will be within or better than the recommended level. No observed reaction. |
| | H+ | Substantial improvement. Will be within or better than the recommended level. Favorable publicity. |
| Criteria for ranking the DURATION of impacts | L | Quickly reversible. Less than the project life. Short-term |
| | M | Reversible overtime. Life of the project. Medium-term |
| | H | Permanent beyond closure – Long-term. |
| Criteria for ranking the SPATIAL SCALE of Impacts | L | Localized-Within the site boundary. |
| | M | Fairly widespread-Beyond the site boundary. Local |
| | H | Widespread – Far beyond site boundary. Regional/national |

| PART B: DETERMINING CONSEQUENCE | | | | | |
|---------------------------------|-------------|---|--------------------------------|--|---|
| SEVERITY = L | | | | | |
| DURATION | Long-term | H | Medium | Medium | Medium |
| | Medium term | M | Low | Low | Medium |
| | Short-term | L | Low | Low | Medium |
| SEVERITY = M | | | | | |
| DURATION | Long-term | H | Medium | High | High |
| | Medium term | M | Medium | Medium | High |
| | Short-term | L | Low | Medium | Medium |
| SEVERITY = H | | | | | |
| DURATION | Long-term | H | High | High | High |
| | Medium term | M | Medium | Medium | High |
| | Short-term | L | Low | Low | High |
| | | | L | M | H |
| | | | Localized Within site boundary | Fairly widespread Beyond site boundary Local | Widespread Far beyond site boundary Regional/national |
| SPATIAL SCALE | | | | | |

| PART C: DETERMINING SIGNIFICANCE | | | | | |
|--------------------------------------|---------------------|---|--------|--------|--------|
| PROBABILITY (of exposure to impacts) | Definite/Continuous | H | Medium | Medium | High |
| | Possible/frequent | M | Medium | Medium | High |
| | Unlikely/seldom | L | Low | Low | Medium |
| | | | L | M | H |
| CONSEQUENCE | | | | | |

| PART D: INTERPRETATION OF SIGNIFICANCE | |
|--|--|
| Significance | Decision guideline |
| High | It would influence the decision regardless of any possible mitigation. |
| Medium | It should have an influence on the decision unless it is mitigated. |
| Low | It will not have an influence on the decision. |

*H = high, M = medium and L = low and + denotes a positive impact.

This section outlines the impact assessment methodology and legal context for specialist studies, if required or as recommended by the competent authority. In addition to the above, the impact assessment methodology includes the following aspects:

Spatial extent – The size of the area that will be affected by the impact/risk:

- Site-specific;
- Local (<10 km from site);
- Regional (<100 km of the site);
- National; or
- International.

Consequence – The anticipated consequence of the risk/impact:

- Extreme (extreme alteration of natural systems, patterns or processes, i.e., where environmental functions and processes are altered such that, they permanently cease);
- Severe (severe alteration of natural systems, patterns or processes, i.e., where environmental functions and processes are altered such that they temporarily or permanently cease);
- Substantial (substantial alteration of natural systems, patterns or processes, i.e., where environmental functions and processes are altered such that they temporarily or permanently cease);
- Moderate (notable alteration of natural systems, patterns or processes, i.e., where the environment continues to function but in a modified manner); or
- Slight (negligible alteration of natural systems, patterns or processes, i.e., where no natural systems/environmental functions, patterns, or processes are affected).

Duration – The timeframe during which the impact/risk shall be experienced:

- Very short term (instantaneous);
- Short term (less than 1 year);
- Medium term (1 to 10 years);
- Long term (the impact will cease after the operational life of the proposed activity (i.e., the impact or risk shall occur for the project duration)); or
- Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient (i.e., the impact will occur beyond the project decommissioning)).

Probability – The probability of the impact/risk occurring:

- Very likely;
- Likely;
- Unlikely;
- Very unlikely; and
- Extremely unlikely.

4. ASSESSMENT OF ALTERNATIVES AND IMPACTS

5.1 ASSESSMENT OF IMPACTS AND MITIGATION

This chapter discusses the alternatives, as well as the selection process of the preferred alternatives that have been considered and assessed as part of the Scoping assessment. The 2012 EIA Regulations (GG4878) define “alternatives”, in relation to a proposed activity, “as different means of meeting the general purpose and requirements of the activity, which may include alternatives to the:

- property on which or location where the activity is proposed to be undertaken;
- type of activity to be undertaken;
- design or layout of the activity;
- technology to be used in the activity; or
- operational aspects of the activity as well as the option of not implementing the activity.

The Scoping Report, therefore, provided a full description of the process followed to achieve the proposed preferred activity, site and location within the site. It further includes the following as a minimum:

- The consideration of the no-go alternative as a baseline scenario;
- A comparison of the reasonable and feasible alternatives; and
- Providing a methodology for the elimination of an alternative.

5.1.1 NO-GO ALTERNATIVE

The no-go alternative assumes that the proposed project shall not go ahead. This alternative entails that the construction and operations would drive certain potential environmental changes and result in additional environmental impacts of the crocodile ranching and its associated supporting infrastructure.

It favours the *status quo* or baseline against which other alternatives are compared and have been considered and at a present, the proposed site is utilized for similar operations and thus no virgin natural environment shall be affected by the proposed operations.

Shall the proposed development not take place, serious consequences can be expected, as there will be a slow pace of development in line with Namibian’s crocodile plan and other developmental initiatives as anticipated by the CITES. This might indirectly and directly affect socio-economic and environmental development which could lead to service protests by the complainants.

The current proposed project site is idle and not being utilized for any economic purposes – and it is located reasonably, away from the residential structures/infrastructure or activities. It should be noted that the identified piece of land is currently not developed, and the proposed project and its associated supporting infrastructure is suitable to be accommodated on the site.

5.1.2 ALTERNATIVES FOR SITES SELECTION

Two (Site A – in Usakos and Site B – at Ebony) sites were considered, both in the Erongo Region were chosen given that the existing land-use, however, site A in Usakos has much competitive advantage, thus preferred for the proposed project.

These site's suitability over any other sites has been determined in terms of the site selection requirements associated with commercial-scale crocodilian farms and it is associated with supporting infrastructure's operations which includes, but not limited to: (i) key environmental attributes; (ii) spatial character; (iii) proximity to sensitive receptors, including essential services; and affordability.

With proximate distance to essential services, choosing a site in Usakos supports potential socio-economic impacts with minimal localized impacts on the environment, which are of short duration and affordable, thus the chosen.

Potential environmental attributes

Overall, the operations of Reptilia Crocodile Farm and Park presents no potential for significant negative socio-economic and environmental impacts as the proposed site already have a similar development, in terms of land use. Moreover, the development of the proposed infrastructure is based on advanced industrial best practice principles and approaches and are complementary to existing activities in the area.

Proximity to sensitive human structures

The proposed site and associated activity will impact less on potential sensitive receptors (biophysical features including local community structures, areas of nature conservation and or archaeological significance) present in the project vicinity.

Noise and air emission are expected during construction, but of minor impact due to the short duration and localized.

5.1.3 CONCLUDING STATEMENT ON THE IMPACT ASSESSMENT AND MITIGATION

The proposed project responds to the species management plan for the *Nile Crocodile*, with a vision to conserve and manage the national crocodile population at biologically viable levels consistent with the demands imposed and opportunities offered by the larger socio-economic setting in which crocodiles occur in Namibia.

This highlights the fundamental principles that guide the attainment of the vision for crocodile conservation in Namibia, which includes, but is not limited to:

- Crocodilian management shall be promoted as an economically viable;
- Crocodiles make significant ecological, financial as well as economic contributions to wildlife-based land uses; and;
- The Government is committed to public funds for the protection and management of the species for sustainable use which is enshrined in the Namibian constitution for long-term conservation and enhancement of crocodile populations.

Potential environmental impacts were identified by Mr. Titus Shuuya in consultation with I&APs, regulatory authorities, specialists and Reptilia Crocodile Farm and Park. In the case of social impacts, the assessment focused on only the members of the public and other local and regional institutions and did not assess health and safety impacts on workers. The assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

The impact assessments are discussed for each sub-section which covers the construction, operational, decommissioning and closure phases, where it is possible as indicated in the table at the beginning of each sub-section. The table has a list of project activities/infrastructure that could cause the potential impact in line specific operations aspect of the proposed project. The activities/infrastructure that is summarized in this section of the report, links to the description of the proposed Reptilia Crocodile Farm and Park operations.

5.2 ASSESSMENT OF IMPACTS AND MITIGATION MEASURES

Mitigation measures to address the identified potential impacts are discussed in this section and includes a conceptual description of mitigation measures. In most cases, unless otherwise stated, these mitigation measures have been taken into account in the EIA assessment.

5.2.1 IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

Potential impacts in respect to the biophysical features relate mainly to the construction, operational and closure decommissioning of the proposed activity may include, but are not limited to the minimal disturbance to the biodiversity (e.g. fauna and flora), (Table 5), the potential impact on groundwater and soil (Table 6).

Table 5: Impact on the Biodiversity

| | | | | | | |
|---|---|----------|---|-------------|---------------------------|--------------|
| Impact Event | Disturbances to the biodiversity i.e., Fauna and Flora | | | | | |
| Description | <p>The site is located in an area that has been already been disturbed and has similar development, hence pre-construction work such as minor vegetation thinning (only unprotected species that are likely to interfere with the proposed development) and ground levelling shall be required.</p> <p>Other ecological impacts associated with the operational phase of the proposed activity may result from the use of feed, pesticides and generation waste generation (domestic and effluent).</p> | | | | | |
| Nature | <p>Impacts in the biodiversity as a result of the project could result from the following:</p> <ul style="list-style-type: none">• Minimal generation of dust resulting from earthworks during construction;• Secondary impacts on fauna and flora use of chemical fertilizer or pesticides, hydrocarbon contamination, in case of back-up generator fuel storage;• Illegal catching or removal of wildlife (for example without a valid permit);• Inappropriate construction of the electric fence that could injure an animal, including avifauna species. | | | | | |
| <p>Phases: Phases during which sources of impacts on the biodiversity may apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long-term risk.</p> | | | | | | |
| Construction Phase | Operational Phase | | Decommissioning Phase | | Post Closure | |
| <ul style="list-style-type: none">• Use of earth-moving equipment for the earthworks | <ul style="list-style-type: none">• Use of light delivery vehicles and associated implement for crocodile ranching and lodge• Use of chemicals | | <ul style="list-style-type: none">• Use of earth-moving equipment for demolishing infrastructure and rehabilitation | | N/A | |
| Severity | Taken together, the disturbances are of medium severity in the unmitigated scenario. In the mitigated scenario, many of these disturbances can be prevented or mitigated to acceptable levels, which reduces the severity to low. | | | | | |
| Duration | The significance of the potential impacts is subject to the proposed operation’s lifetime, however, duration is short-term. | | | | | |
| Spatial Scale | Low, very localized | | | | | |
| Probability | Very Low, most impacts are contained within the appropriately zoned environment | | | | | |
| Unmitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | M | M | L | H | L | H |
| Mitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | L | L | L | L | L | M |
| Conceptual Description of Mitigation Measures | <p>The proponent has strict company policies relating to environmental sustainability, thus no vegetation clearing is envisaged, but only vegetation thinning especially that of the alien species. No harm to biodiversity or collection shall be tolerated, including collection firewood. The laydown area designated for the construction activities shall be demarcated and activities shall be contained to these areas and unnecessary potential disturbance prevented.</p> <p>Even though it is unlikely, sighting of any extraordinary biodiversity and or cultural, heritage and or archeological artifacts must be reported immediately to the relevant authorities. In addition, appropriate permits and licenses for the purchase, storage and use or handling of chemicals (including fertilisers, pesticides, fuel and lubricants) must be obtained before commencing the operational phase of the proposed activity. All hydrocarbons should be stored within the secondary containment and drip trays shall be in place for accidentally spills – and should</p> | | | | | |

| | |
|--|---|
| | <p>spillage (minor or major), it should be cleaned immediately.</p> <p>No illegal catching or removal or trapping of wildlife shall be tolerated. The electrical fence shall be constructed appropriately to prevent injury to animals, including avifauna species.</p> |
|--|---|

Table 6: Impact on groundwater and soil

| Impact Event | Potential pollution of groundwater, soil and air | | | | | |
|---|---|----------|--|-------------|---------------------------|--------------|
| Description | <p>There exists a potential for the generation of various waste material and dust emission result from different phases of the proposed activity i.e., construction/maintenance, operational and decommissioning.</p> <p>These waste materials may include domestic (from the existing construction and operation activities), effluent and hazardous waste associated with hydrocarbon products and chemicals and may result in potential soil and groundwater contamination. Whereas, dust emission from construction and operational activities may result in air pollution.</p> | | | | | |
| Nature | <p>Domestic waste consists of both construction waste such as building rubble and discarded materials and domestic waste which may include litter and other operation related waste (spillage and leakage of hydrocarbons).</p> <p>If not well managed, these may present risks of soil/water contamination as well as health and safety risks to both humans and wildlife.</p> | | | | | |
| Phases: Phases during which waste generation and minor dust emissions apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long-term risk. | | | | | | |
| Construction Phase | Operational Phase | | Decommissioning Phase | | Post Closure | |
| <ul style="list-style-type: none">Construction activities may result in the generation of building rubbles and other litter material | <ul style="list-style-type: none">Waste generation from the crocodile farm and lodge activities | | <ul style="list-style-type: none">Construction activities may result in the generation of waste material | | N/A | |
| Severity | In the unmitigated scenario, the potential risk for soil/groundwater contamination or air pollution is high particularly if no mitigation measures are adopted. However, in the mitigated scenario, most waste material may be well contained through both appropriate temporary storage, handling and disposal to designated waste disposal sites. | | | | | |
| Duration | The significance of the potential impacts is high although the duration is short-term. | | | | | |
| Spatial Scale | Low, localized | | | | | |
| Probability | Very low, the most impact can be contained | | | | | |
| Unmitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | M | M | M | H | M | H |
| Mitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | L | L | L | L | L | M |
| Conceptual Description of Mitigation Measures | <p>Waste material and air quality management mitigation measures are targeted to prevent both (1.) Scavenging of waste by both humans and wildlife, and (2.) The contamination of soil, groundwater and air.</p> <p>Hence, the installation of a suitable storage facility for both domestic and hazardous substance waste is highly recommended for example the proposed containerised domestic sewage treatment plant. Waste material must then also be</p> | | | | | |

| | |
|--|---|
| | <p>regularly and properly disposed of at the nearest registered waste disposal site. In addition, all hydrocarbons should be stored within the secondary containment and drip trays shall be in place for accidentally spills – and should spillage (minor or major), it should be cleaned immediately. Air pollution shall be mitigated by using existing access roads and tracks, speed restriction (<30km/hr), implementation of dust suppression.</p> <p>Groundwater quality, volumes (inflow and outflow to be fitted with flow meters) rest water levels of boreholes located within the project vicinity shall be monitored, for example, monthly or quarterly.</p> <p>Any soil erosion must be treated immediately. All-access roads and paths must be maintained appropriately using suitable materials, compaction proper design. If required, stormwater diversion or drainage or trenches shall be established to prevent erosion.</p> |
|--|---|

5.2.2 IMPACTS ON THE SOCIAL, HEALTH AND SAFETY

Table 7: Impact on the Health and Safety

| Impact Event | Disturbances to the human receptors including pets and other household animals' Accidents/incidents | | | | | |
|--|---|----------|---|-------------|---------------------------|--------------|
| Description | Employees will be required in most of the activities and therefore potential risk to health and safety exists, mainly during the construction phase and to some extent also during the operational phase. For example, heavy earth-moving equipment, and other construction machinery requires shall only be operated by a competent employee. Appropriate personal protective equipment shall be provided to all employees before commencing work. | | | | | |
| Nature | Any mechanical failures and or human errors that may occur during the construction/operation activities e.g., installing electrical equipment without a competence certificate may increase the risk of fires and/or electrocution safety hazards. | | | | | |
| Phases: Phases during which sources of Health and Safety impacts may occur are highlighted below; Significance assessment was carried out on the operational phase which presents a long-term risk. | | | | | | |
| Construction Phase | Operational Phase | | Decommissioning Phase | | Post Closure | |
| <ul style="list-style-type: none">Any mechanical failures and or human errors while operating equipment | <ul style="list-style-type: none">Handling of the crocodile farm and lodge facilitiesUsing hydrocarbons and pesticides etc. | | <ul style="list-style-type: none">Any mechanical failures and or human errors while operating equipment | | N/A | |
| Severity | High severity in the unmitigated scenario. In the mitigated scenario, severity shall reduce to low. | | | | | |
| Duration | The significance of the potential impacts is high with potentially long-term impacts extending beyond the project operations in the unmitigated scenario. However, if the potential impacts are mitigated, the significance of the impact will be medium. | | | | | |
| Spatial Scale | Low, localized and mainly limited to the project sites | | | | | |
| Probability | Very Low, the most impact can be contained through an appropriate EMP, HR Policy and other applicable legislation. | | | | | |
| Unmitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | H | L | M | H | M | H |
| Mitigated | Severity | Duration | Spatial | Consequence | Probability of | Significance |

| | | | Scale | | Occurrence | |
|--|---|---|-------|---|------------|---|
| | L | L | M | L | L | M |
| Conceptual Description of Mitigation Measures | <p>Development of a health and safety plan – this shall be communicated through site induction. Appropriate provision of PPE to all the employees (both permanent and temporary) and child labour is prohibited.</p> <p>Implantation and monitoring the Health and Safety plan which integrate risk assessment and emergency response e.g., fire protection plan in the event of a fire, and quick response time by a competent employee to prevent it spreading further.</p> <p>All accidents/incidents including near-misses should immediately be reported to the Project Manager – and should be recorded in an incident register. All employees attend the health, safety and environmental induction before starting with work.</p> | | | | | |

Table 8: Impact on the socio-economic aspect

| Table 8: Impact on the socio-economic aspect | | | |
|--|---|-----------------------|--------------|
| Impact Event | Disturbances to the social and economic aspects of the local community | | |
| Description | The proposed project has the potential to increase economic growth that may never be realized if the activities do not go ahead including a loss in income through tax and levies, unemployment and the loss of an opportunity to boost the micro-socio-economic benefits surrounding the local community. General disturbance to the local community through noise, light and odour pollution. | | |
| Nature | <p>Impacts relating to the local socio-economic activities may arise from the construction and operation phases of the proposed project. The significant impact associated with the proposed project are positive, for example, direct employment creation and also a boost of the micro-economy for the Usakos Town’s inhabitants. Indirectly, can be viewed through the purchase of goods from the town and outsourcing of services to SME businesses.</p> <p>Noise and light pollution expected from the proposed project is generally minimal, however, odours if not well managed can be problematic, especially from certain processing activities.</p> | | |
| Phases: Phases during which sources of socio-economic impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long-term risk. | | | |
| Construction Phase | Operational Phase | Decommissioning Phase | Post Closure |
| <ul style="list-style-type: none">• Sourcing of construction material from local dealers and businesses, and or provision of service• Contracting of local and regional business for the supply | <ul style="list-style-type: none">• Employment of local community• Outsourcing of various services from the local and regional SME Business• Disturbance to the local community through noise, light and odour pollution | N/A | N/A |
| Severity | In the unmitigated scenario, this implies in the case where the activity takes no effect, no economic benefits shall realize hence, the severity in respect to unemployment shall be very high. However, with the implementation of the proposed operations, the severity of unemployment shall be reduced to medium. | | |
| Duration | The significance of the potential impacts is subject to the proposed operation’s lifetime, with a long-term potential benefit | | |
| Spatial Scale | Low, localized and mainly limited to the surrounding community | | |
| Probability | Medium to High probability in respect to job creation on both the temporary during the construction phase of warehouse facilities and long-term during the operation | | |

| | | | | | | |
|---|--|----------|---------------|-------------|---------------------------|--------------|
| | phase | | | | | |
| Unmitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | H | L | L | L | L | L |
| Mitigated | Severity | Duration | Spatial Scale | Consequence | Probability of Occurrence | Significance |
| | L | M+ | M+ | H+ | H+ | H+ |
| Conceptual Description of Mitigation Measures | <p>Timely and continuous communication and dissemination of information with the local community must be ensured to alleviate the potential sense of social marginalization, drive gender equality and enhance the understanding and perception of the benefits associated with the proposed project.</p> <p>Minimize noise pollution as practicable as possible, for example, construction work should be conducted between dusk and dawn – between 7 am – 5 pm and no construction work on Sunday and public holidays.</p> <p>In case odours are generated from the facilities, efforts shall be made to mitigate and minimize the impacts as practical as possible, especially during operations.</p> | | | | | |

5. CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

Reptilia Crocodile Farm and Park is a registered Namibian company, with the overall objective of breeding the Nile crocodiles for conservation purposes, tourism and hide production, thus promoting the long-term survival of the species. This will be achieved through the high-level interlinked objectives which include, but are not limited to biodiversity conservation, improved economic growth and living standards at local, regional, national and international levels. If though the proposed operations shall create employment opportunities and trickling benefits down to the larger population, it may also create opportunities for unprecedented negative impacts.

Potential impacts may vary in terms of scale (for example localized), magnitude and duration e.g., minor negative impacts in the form of visual intrusion, dust and noise pollution especially during the construction phase. Below is a summary of the likely positive impacts that have been assessed for the different phases of the proposed operations:

- Raising awareness about the benefits of ecologically sustainable natural resource use (Likely impacts are high).
- Socio-economic development and capacity building through partnering with national and international experts, skills transfer and training the import / export industry shall be achieved (Likely impacts are high).

The following is a summary of the likely negative potential impacts that have been assessed for the different phases of the propped project:

- Ambient Air Quality (Likely impacts are high but localized and can employ dust suppressing measures).

- Traffic and Noise impact (Likely impacts are low for traffic congestion as the preferred haulage method is rail, a method currently under-utilized).
- Ecological and biodiversity loss (Likely impacts are localized and low).
- Health and safety (Overall likely impacts are low with handling of commodities in a closed warehouse and use of correct PPE).
- Accidental spill of hazardous substance (Likely impacts are low with a contingency and environmental management plan in place).

In a case of a contingency operation that may trigger deviation of actions from the approved mitigation measures, approval must be obtained from all relevant competent authorities before a deviation with the approved condition.

6.2 RECOMMENDATIONS

Based on the findings of the environmental scoping assessment, which concludes that all potential negative impacts associated with the proposed Reptilia Crocodile Farm and Park's operations are minimal and practical mitigation measures are available. The positive impacts can be harnessed to increase the net marginal benefits relating to the socio-economic aspects of the proposed operations.

Enviro-Leap environmental practitioner confidently recommends that the proposed project can proceed and should be authorized by the DEA. The proposed operations are considered to have an overall low negative environmental impact and an overall moderate positive socio-economic impact with the implementation of respective mitigation and enhancement measures.

It is highly recommended that Reptilia Crocodile Farm and Park must upon obtaining their Environmental Clearance Certificate (ECC), implement all appropriate management and mitigation measures and monitoring requirements as may be stipulated in the EMP and or as a condition of the ECC. These measures must be undertaken to promote and uphold good practice environmental principles and adhere to relevant legislations by avoiding unacceptable impacts to the receiving environment.

It is critical to consider the findings of the environmental scoping assessment process and given the national and regional strategic requirements for infrastructure development as well as economic growth. It is the opinion of the practitioner that the project benefits outweigh the costs and it will make a positive contribution towards steering Namibia's economy, while conserving the species. The specified mitigation measures are applied effectively and it is recommended that Reptilia Crocodile Farm and Park operations receive an ECC in terms of Section 32 of the Environmental Management Act No. 7 of 2007 and its EIA Regulations of 2012.

6. REFERENCE

- Arukwe, A., Røsbak, R., Adeogun, A. O., Langberg, H. A., Venter, A., Myburgh, J., ... & Regoli, F. (2015). Biotransformation and oxidative stress responses in captive Nile crocodile (*Crocodylus niloticus*) exposed to organic contaminants from the natural environment in South Africa. *Plos one*, 10(6).
- Fergusson, R. A. (2010). Nile crocodile *Crocodylus niloticus*. Crocodiles. Status Survey and Conservation Action Plan, 3rd edn (eds Manolis SC, Stevenson C), 84-89.
- Government of the Republic of Namibia. 2004. Namibia Vision 2030: Policy Framework for Long-Term National Development. Office of the President, Windhoek.
- Government Gazette, 27 December 2007. No. 3966, Act No. 7, 2007 Environmental Management Act 2007.
- Hutton, J. M. (1987). Growth and feeding ecology of the Nile crocodile *Crocodylus niloticus* at Ngezi, Zimbabwe. *The Journal of Animal Ecology*, 25-38.
- Mannheimer, C. & Curtis, B. A. (eds) 2009. Le Roux and Müller's Field Guide to the Trees and Shrubs of Namibia. Windhoek: Macmillan Education Namibia.
- Mendelsohn, J., Jarvis, A., Roberts, C. & Robertson, T. 2003. Atlas of Namibia. David Philips Publisher. Cape Town.
- Ministry of Environment and Tourism, 2018. *Sixth National Report to the Convention on Biological Diversity (2014-2018)*, Windhoek: Republic of Namibia.
- Ministry of Environment and Tourism, 2014. Species Management Plan, Nile Crocodile (*Crocodylus niloticus*), Windhoek: Republic of Namibia.
- Morpurgo, B., Gvoryahu, G., & Robinzon, B. (1993). Aggressive behaviour in immature captive Nile crocodiles, *Crocodylus niloticus*, in relation to feeding. *Physiology & behaviour*, 53(6), 1157-1161.
- Moore, B. C., Groenewald, H. B., & Myburgh, J. G. (2020). Histological investigation of the Nile crocodile (*Crocodylus niloticus*) phallic glans. *South American Journal of Herpetology*, 16(1), 1-9.
- National Planning Commission, 2017. *Namibia's 5th National Development Plan (NDP5)*., Windhoek: Republic of Namibia
- Namibia Statistics Agency, 2014. Namibia Intercensal Demographic Survey 2016 Report. Namibia Statistics Agency, Windhoek
- Namibia Statistics Agency, 2013. Profile of Namibia: Facts, Figures and other Fundamental Information. Namibia Statistics Agency, Windhoek
- Olivier, J., 1995. Spatial distribution of fog in Namib. *Journal of Arid Environment*. 29:129-138
- Robertson, A., Jarvis, A., Mendelsohn, J. and Swart, R. 2012. Chapter 2: Weather and Water in Namibia's Coast: Ocean Riches and Desert Treasures. Directorate of Environmental Affairs, Ministry of Environment and Tourism, Namibia, pp. 20-45
- Turpie et al. (2007). Climate Change Vulnerability and Adaptation Assessment for Namibia's Biodiversity and Protected Area System.
- Patrick Aust., 2014. A brief summary of Background Report & Species Management Plan, Nile Crocodile (*Crocodylus niloticus*), Ministry of Environment and Tourism, Windhoek: Republic of Namibia
- Patrick Aust, Brenna Boyle, Rich Fergusson & Tim Coulson (2009). The impact of Nile crocodiles on rural livelihoods in northeastern Namibia: *South African Journal of Wildlife Research* Vol. 39, No. 1, April 2009
- Pooley, A. C. (1977). Nest opening response of the Nile crocodile *Crocodylus niloticus*. *Journal of Zoology*, 182(1), 17-26.
- Wallace, K. M., & Leslie, A. J. (2008). Diet of the Nile crocodile (*Crocodylus niloticus*) in the Okavango Delta, Botswana. *Journal of Herpetology*, 42(2), 361-368.

APPENDIX A – ACCEPTANCE LETTER FROM USAKOS TOWN COUNCIL



USAKOS

TOWN COUNCIL

OFFICE OF THE CHIEF EXECUTIVE OFFICER

9th April 2021

The Managing Director
Reptilia Crocodile Farms and Parks CC
P.O. Box 3749
WALVIS BAY

Dear Mr Alfred Walter Hantstein,

RE: APPLICATION TO LEASE WITH AN OPTION TO ACQUIRE BY WAY OF PRIVATE TREATY A PORTION OF THE REMAINDER OF THE FARM USAKOS AND TOWNLANDS NO. 93: SOUTH-WEST LONGITUDINAL OF THE KHAN RIVER MEASURING APPROXIMATELY THREE HECTARES IN EXTENT.

1. Your written application and presentation made to the Usakos Town Council on the abovementioned subject matter bears reference.
2. Please be advised herewith that the Usakos Town Council ("Council"), at its 2nd Ordinary meeting of 2021 held Friday, 12th March 2021, vide Council Resolution Number OCM12.12.03.2021, regarding the abovementioned subject matter, resolved as follows:-

"(1) Council subject to the provisions of section 30(1)(t)(iii) of the Local Authorities Act 23 of 1992 as amended, read with the provisions of section 77(1) of the Deeds Registries Act 47 of 1937 as amended, approves lease with option to buy approximately 3 hectares south-western longitudinal along of the Khan river and opposite Namib Wüste Stall and Oasis along the B2 highway and southwards of Khan river with the following Coordinates:

- Point A (-22.000250°, 15.579145°)
- Point B (-22.002474°, 15.578051°)
- Point C (-22.003672°, 15.577856°)
- Point D (-22.004639°, 15.578204°)
- Point E (-22.004445°, 15.578724°)
- Point F (-22.002746°, 15.579344°)
- Point G (-22.000919°, 15.580195°)

Provided that such approval is preceded by the following conditions that Reptilia Crocodile Farm and Parks CC causes:

- (a) to be conducted a hydrographical study, with specific reference to the underground water resources, alongside of the Khan river in order to

ascertain the underwater level potency in lieu of the sustainability of the project; and

(b) further to be conducted an environmental impact assessment in order to ascertain compliance with the environmental legislation.

- (2) Reptilia Crocodile Farms and Parks CC submits both the hydrographical baseline report and the environmental impact assessment and scoping reports to Council for consideration.
 - (3) once council is satisfied with the hydrographical baseline report and the environmental impact assessment and scoping report, and after having obtained from and granted approval by the Minister of Urban and Rural Development in terms of section 30(1)(t)(iii) of the Local Authorities Act 23 of 1992 as amended, and save the approved gazette tariffs on 'lease of undetermined land in town', Council determines the monthly rental fee to be \$ 3000.00, which rental fees shall escalate at a rate 10% after every twelve months; and
 - (4) the Chief Executive Officer is directed to cause that a Lease Agreement is made by and entered into between Reptilia Crocodile Farms and Parks CC and Council with effect from 1st May 2021.
3. Please do direct all your enquiries regarding this writing to the Office of the Chief Executive Officer at the contact details as provided above.
 3. Please do direct all your enquiries regarding this writing to the Office of the Chief Executive Officer at the contact details as provided above.
 4. Your forthcomingness in this regard shall be highly appreciated.

Yours faithfully

IVIN J LOMBARDT
CHIEF EXECUTIVE OFFICER



APPENDIX C – PUBLIC PARTICIPATION PROCESS

PROJECT BACKGROUND INFORMATION DOCUMENT

The Proposed Construction and Operation of a Crocodile Farm (husbandry and tannery) and Leisure (lodging and tours) Park activities on a portion of the remainder of farm Usakos and Townlands No. 93: South-west Longitudinal 93: South-west Longitudinal of the Khan River, Erongo Regions


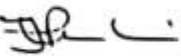

JUNE 30

Compiled for: Reptilia Crocodile Farm and Park cc
P.O. Box 3749
Walvis Bay, Namibia

Authored by: Mr. Titus Shuuya



 P. O. Box 25874, Windhoek  +264 81 232 6843  eap.trigen@gmail.com

| DOCUMENT INFORMATION AND APPROVAL | | |
|---|--|--------------|
| Title | Environmental Scoping and Management Plan for the Proposed the Construction and Operation of a Crocodile Farm (husbandry and tannery) and Leisure (lodging and tours) Park | |
| ECC Application Reference number | APP-002760 | |
| Location | A portion of the remainder of farm Usakos and Townlands No. 93: South-west Longitudinal of the Khan River, Erongo Region | |
| Proponent | Reptilia Crocodile Farm and Park cc P.O. Box 3749 Walvis Bay, Namibia | |
| Author - EAP: | Signature | Date |
| Mr. Titus Shuuya (EAP) 1 - Enviro-Leap |  | JUNE 30 |
| Author - Reviewer: | | |
| Mr. Vilho P. Mtuleni (EAP) 2- Enviro-Leap |  | JUNE 30 |
| Approval - Client 2 | | |
| Mr. Jacobs Sihela Rep. Reptilia Crocodile Farm and Park |  | 30 June 2021 |
| Copy Right: <i>"This document is the intellectual property of ELC and may only be used for the intended purpose. Unauthorized use, duplication, plagiarism or copying without referencing is prohibited"</i> | | |

1. INTRODUCTION

Reptilia Crocodile Farm and Park cc is a fully registered, 100% Namibian owned company (CC/2020/00251). The proponent intends to construct and operate a crocodile farm in Usakos (Figure 1), with an objective to breed the *Crocodylus niloticus* (Nile crocodiles) for conservation purposes, tourism and hide production, thus promoting the long-term survival of the species. The proposed development shall be achieved through the high-level interlinked objectives which include, but not limited to ecology, economics, social, regional, national and international levels.

The component of the key activities envisaged includes the following:

- The construction and operation of crocodile pens, abattoir, lodging facilities and associated/supporting infrastructures;
- Crocodile husbandry (eggs collection and hatching through incentive-driven conservation programs for crocodilians, sourcing of crocodiles, breeding, feeding and health care);
- Growing out juvenile crocodile, harvesting and value addition/ hide tanning and;
- Hospitality services (lodging, restaurant and guided tours) which will make a significant ecological, social and economic contribution of the Nile crocodile while maintaining the species biological integrity as well as the population in Namibia.

The proposed operation triggers some listed activities in terms of the Environmental Management Act (EMA) no. 7 of 2007 and the Environmental Impact Assessment (EIA) Regulations of 6 February 2012 that may not be undertaken without an environmental clearance certificate (ECC). The need for the assessment is triggered by the activities of the proposed operations falling under the following category of listed activities (Table 1):

Table 1: List of activities identified in the EIA Regulations which apply to the proposed project

| EMA 2007 Legislation | Description of activity | Relevance to TPT-2 Sand and Stone quarrying activities |
|---|---|--|
| Activity 6 Tourism Development | The construction of resorts, lodges, hotels or other tourism and hospitality facilities. | The core of the proposed activity entails the provision of tourism services e.g., lodging and tours |
| Activity 7 (7.5) Agricultural activities) | Pest and disease control | Crocodile husbandry includes the use of parasites and disease control agents |
| Activity 8 (8.1 Water resource development) | The abstraction of ground or surface water for industrial or commercial purposes | The proposed project site is situated near a watercourse and may include abstraction of groundwater |
| Activity 9 (9.1) Hazardous Substance Treatment, Handling and Storage | The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974 | A component of the operations is the processing of hides, these may include skinning tanning chemicals. These may lead to contamination of the receiving environment with hazardous substances |

2. PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT (BID)

The purpose of the BID includes, but not limited to:

- To ensure that the project information provided by the client is correct;
- Key aspects pertaining to the EIA are identified and raised early on by the Environmental Assessment Practitioner (EAP), the Competent Authority as well as Interested and Affected Parties (I&AP's);
- The BID provides the index for the EIA Scoping Exercise and EMP (similar to dichotomous keys). In other words, what is important, what should be assessed and how should it should be assessed.

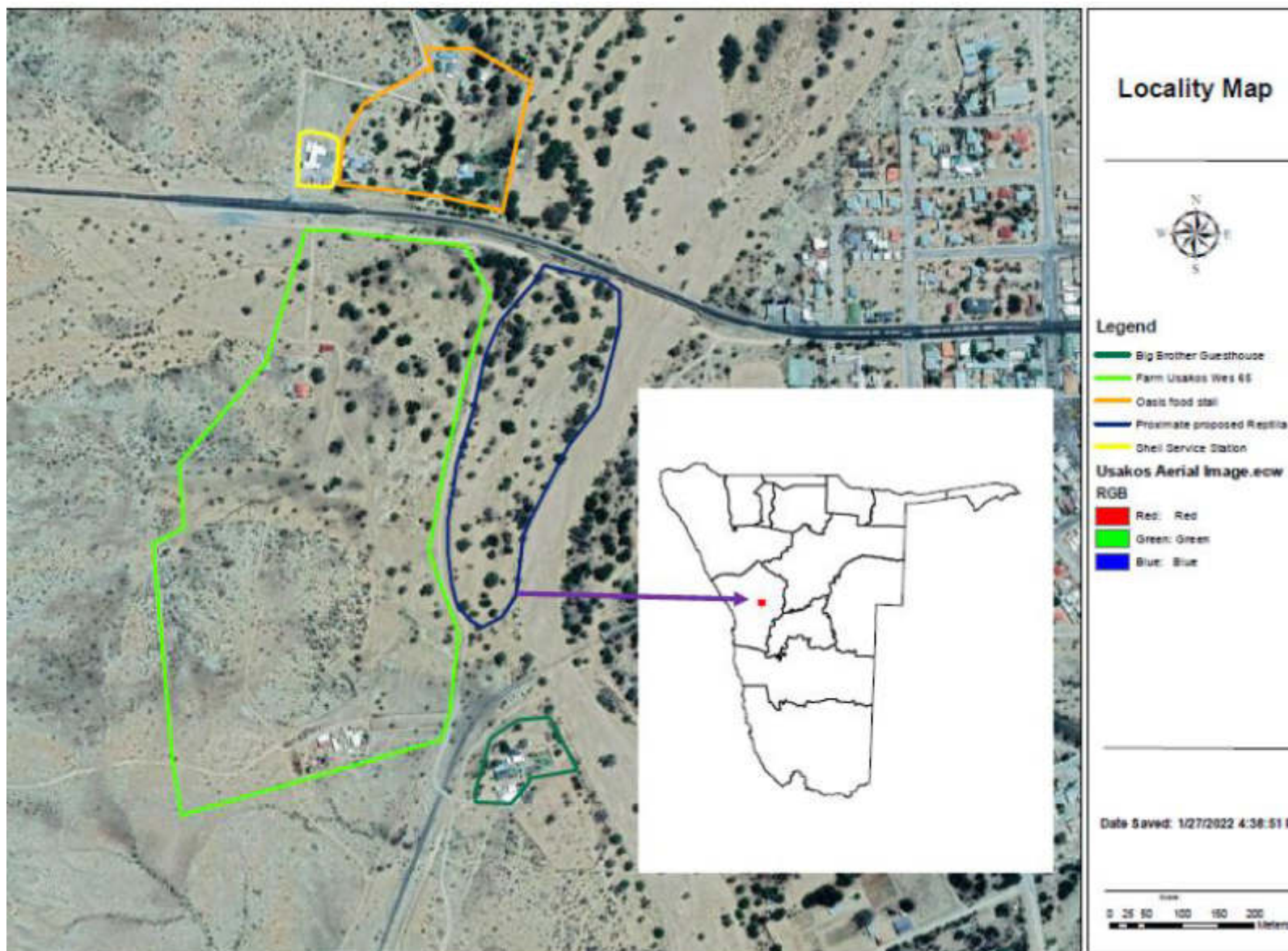


Figure 1: Show the proposed Reptilia Crocodile Farm and Park project site south-west of the Khan River in Usakos, Erongo Region

3. PROJECT DESCRIPTION

Reptilia Crocodile Farm and Park cc intend to construct and operate a crocodile farm in Usakos, with an objective to breed the Nile crocodiles for conservation purposes, tourism and abattoir for skin as well as meat production. The proposed project site will be located on the south-west of the Khan River on a portion of the remainder portion of farm Usakos and Townlands No. 93.

The component of the key activities envisaged includes the following:

- The construction: in order for the smooth operation of the proposed crocodile farm and park the following supporting infrastructure will be required and is to be constructed on a three (3) hectare area - holding pens, ponds and abattoir, veterinary room, feed stores and overall farm boundary fences.
- Installation of water and effluent, and power supply infrastructure: primarily these will be connected and services provided by the Usakos Town Council and a 120kVA diesel generator backup supply.
- Crocodile Husbandry: key activity here includes the sourcing of the seed-stock of crocodiles, breeding, feeding and health care, and the maintenance of infrastructures.
- Abattoir and tannery operation: as part of the support infrastructure for the crocodile farm which will include growing out juvenile crocodile, harvesting and hide tanning.
- Hospitality services: to complement the crocodile husbandry, the operations include a component of tourism activities mainly the provision of accommodation (lodging and camping), restaurant and guided tours. This is most important to ensure that the farming operation is financially sustainable.

4. REGULATORY FRAMEWORK

4.1. Environmental Requirements under the Environmental Management Act

4.1.1. Environmental Management Act (No.7 of 2007)

The Environmental Management Act (also referred to as the EMA), stipulates that for each developmental project, which is listed under the EIA regulations, an EIA should be conducted.

The EIA aims to identify, assess and ascertain potential environmental impacts that may arise from the proposed activity. According to the EMA, an EIA is a process of identifying, predicting, interpreting and communicating potential impacts to interested and affected parties (I&APs).

The proposed activity triggers some listed activities in terms of the Environmental Management Act no. 7 of 2007 and the Environmental Impact Assessment Regulations of 6 February 2012 that may not be undertaken without an environmental clearance certificate (ECC). The triggered activities are shown in table 1.

4.1.2. The Environmental Impact Assessment Process

An EIA is a process that evaluates the likely environmental and social effects of a proposed project or development, which identifies suitable mitigation to avoid or minimize the significant environmental impact resulting from the project activities.



Figure 3: Anticipated Environmental Assessment Timeline

5. POTENTIAL ENVIRONMENTAL IMPACT ASSOCIATED WITH THE PROPOSED REPTILIA CROCODILE FARM AND PARK

5.1. Human dimension

To improve the socio-economic standard of the Namibian people the project must offer employment as well as training opportunities to Namibians. Working at the crocodile farm requires

7 | Page

maximum safety, hence the proponent shall ensure that the proposed development complies with the Namibian and international best safety standards.

5.2. Biophysical environment

Potential impacts may vary in terms of scale (locality), magnitude and duration e.g. minor negative impacts in the form of visual intrusion, dust and noise pollution especially during the construction phase and process. The following is a summary of the likely negative impacts that have been identified for the different phases of the proposed farming and tourism activities:

- i. Land use (likely impacts are negligible; the proposed project area is isolated from the distant settlements and conservation zones).
- ii. Noise (likely impacts are low as the site is far from residential areas).
- iii. Ecological and biodiversity loss (likely impacts are localized and low).
- iv. Health and safety (overall likely impacts are low with correct PPE).
- v. Solid and hazardous waste management (likely impacts are low with a solid waste management plan and minimal hydrocarbon fuel use).
- vi. Socioeconomic (likely negative impacts are low)

6. STAKEHOLDERS CONSULTATION

As stipulated in the EIA Regulations (paragraphs 7 and 21), public consultation is a prerequisite and forms an integral component of the EIA. Comments made during the consultation should be properly captured and addressed in both the EIA Scoping Report and EMP respectively.

Engaging and consulting with the public (residents, authorities etc.) and organizations that may be affected by, or interested in the proposed development allows for all parties to be informed of the proposals and provides an opportunity for views, opinions and concerns to be registered.

This process benefits the EIA and design development process as the public may provide information that may not be available otherwise, e.g., experience and local knowledge, and local concerns and can be taken into consideration in the EIA. Engaging and consulting early on in the EIA process minimizes potential complaints and objections, and assists the ECC application process.

7. REGISTRATION AS AN I&AP

Registering as an I&APs affords you an opportunity to be updated about the project and comment on the project, throughout the EIA process. All registered I&AP's will be provided with the draft scoping and EMP reports.

Your comments and questions are important, will add value to the EIA and will ensure that information that may not be available to the consultant is considered (e.g., experience, local knowledge etc.).

To register or provide comments about the proposed project, please send an e-mail to: eap.trigen@gmail.com or call +264 81 232 6843 or 0853013777.

8 | Page

COMMENT FORM

APPLICATION FOR AN ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A CROCODILE FARM AND PARK IN USAKOS, ERONGO REGION

Please submit the comment form via e-mail or post by 31 July 2021.

Attention: Enviro-Leap Consulting cc
Tel No: 08181 232 6843 / 0853013777
Email: eap.trigen@gmail.com
Postal Address: P.O. Box 25874, Windhoek

| | | | |
|----------------|--|-------------|--|
| TITLE | | FIRST NAME | |
| INITIALS | | SURNAME | |
| ORGANISATION | | E-MAIL | |
| POSTAL ADDRESS | | POSTAL CODE | |
| TEL NO. | | FAX NO. | |
| CELL NO. | | | |

Please list any colleagues/friends or organizations that you feel should also be registered as Interested or Affected Party for the proposed project (with contact details if available).

| Name / Organisation | Postal Address | Tel No. | E-mail |
|---------------------|----------------|---------|--------|
| | | | |
| | | | |

1. Please provide your comments below, write a formal letter or simply send an e-mail to:
eap.trigen@gmail.com

.....

.....

.....

2. Your comment should not be limited by the space provided & you may submit as many pages, as necessary

.....

.....

.....

Thank you for the comments

Penomunda Butchery
MEAT | CHICKEN | FISH

CLO EXSTEL/SHOVERILLER STREET, KHOMASDAL EXT.11 (ADJACENT TO THE PRIME OLD 067 BAR)

| | | | | | | |
|---|--|--|---|---|---|--|
|  R100 Lamb chops |  R94 Lamb whole rim |  R85 Rooswors |  R82 Lamb stew |  R78 Beef mince |  R65 Beef stew |  R74 Beef chops |
|---|--|--|---|---|---|--|

WhatsApp | Facebook | Instagram | Penomunda Butchery

+264 81 721 5099

Manhood enlargement all size
Hips and buttocks and enlargement.

Power and strong in bed Pregnancy problems

And many more call

Mr. Amidu 0812049299



Manhood enlargement all size.
Hips and buttocks enlargement cream power and strength in bed pregnancy problems and many more

Mr ABI 081 4095373

Hip and buttocks enlarge cream Manhood enlargement all size Power in bed Pregnancy problems vaginal cream (tightens), for sensitive-areas/ antibacterial and more

CALL MANDA: 081 221 8201

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION AND OPERATIONS OF A FUEL RETAIL FACILITY ON ERF 1132, CHANGWENA EXTENSION NO. 5, HELAO NAFIDI TOWN, KHOMASDAL REGION

1. PROJECT SITE AND DESCRIPTION

Manila (Gauteng) and Part 11, intend to apply to register to obtain an Environmental Clearance Certificate for the proposed construction and operation of a Fuel Retail Facility on Erf 1132, Helao Nafidi Town, Khomasdal Region. The proposed activity includes the construction of the facility, and operation of the facility including the storage, handling and distribution of fuel.

2. PUBLIC PARTICIPATION PROCESS

EnviroLeap Consulting invites all interested and affected parties (I & APs) to register and receive Environmental Assessment (EA), Scoping and EIA documents relating to the proposed project for their comments and input.

EnviroLeap Consulting invites all interested and affected parties (I & APs) to register and receive Environmental Assessment (EA), Scoping and EIA documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and affected parties are hereby invited to register by writing to us at the address below no later than 30 JULY 2021.

3. COMMENTS AND QUERIES

Please register and direct all comments, queries to: Mr. Vito Mureti, Environmental Assessment Practitioner Email: info@enviroleap.com | Tel: +264 81 232 6543

ENVIROLEAP CONSULTING CC

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A FUEL RETAIL FACILITY ON ERF 1132, CHANGWENA EXTENSION NO. 5, HELAO NAFIDI TOWN, KHOMASDAL REGION

1. PROJECT SITE AND DESCRIPTION

Manila (Gauteng) and Part 11, intend to apply to register to obtain an Environmental Clearance Certificate for the proposed construction and operation of a Fuel Retail Facility on Erf 1132, Helao Nafidi Town, Khomasdal Region. The proposed activity includes the construction of the facility, and operation of the facility including the storage, handling and distribution of fuel.

2. PUBLIC PARTICIPATION PROCESS

EnviroLeap Consulting invites all interested and affected parties (I & APs) to register and receive Environmental Assessment (EA), Scoping and EIA documents relating to the proposed project for their comments and input.

EnviroLeap Consulting invites all interested and affected parties (I & APs) to register and receive Environmental Assessment (EA), Scoping and EIA documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and affected parties are hereby invited to register by writing to us at the address below no later than 30 JULY 2021.

3. COMMENTS AND QUERIES

Please register and direct all comments, queries to: Mr. Vito Mureti, Environmental Assessment Practitioner Email: info@enviroleap.com | Tel: +264 81 232 6543

ENVIROLEAP CONSULTING CC

JH TECHNICAL SERVICES cc
WINDHOEK \ OMUTHIYA

We sell & fix this:



Call us: 081 341 7253
E-mail: info@jhtechnical.com.na

Ongudi FISH RESTAURANTS

Fish Shops
Powered by Ongudi

Locations:

| | |
|-----------------------------------|--------------|
| HAYANA (Windhoek) | 081 468 8716 |
| OMBILI (Windhoek) | 081 468 8716 |
| GOREANGAB OKAPALE (Windhoek) | 081 468 8716 |
| OLD POWER STATION (Windhoek) | 081 242 6194 |
| GOREANGAB WOERMANNBROK (Windhoek) | 081 499 2704 |
| TAUBEN GLEN (Windhoek) | 081 242 6194 |
| AMAGOESA (Okavango) | 081 244 2654 |

A variety of fish available

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT

Notice is hereby given to all interested and affected parties (I & APs) that an application will be made to the Environmental Commissioner for the Environmental Clearance in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (GN No. 30 of 6 February 2012) for the following intended activity:

PROJECT DETAILS:

- Construction and Operation of a Fuel Retail Facility on Erf 1132, Changwena Extension no. 5, Helao Nafidi Town.

Project Location: Erf 1132, Changwena Extension no. 5, Helao Nafidi Town, Changwena Region.

Project Description: Construction and Operation of a Fuel Retail Facility on Erf 1132, Changwena Extension no. 5, Helao Nafidi Town.

Proponent: One Way Investment CC
Environmental Consultants: Nghivela Planning Consultants

All I&APs are encouraged to register and raise concerns or provide comments and opinions. All I&APs will be provided with a Background Information Document (BID) comprising of detailed information for the intended activity. An Open day public meeting about the development will be held at:

Venue: Erf 1132, Changwena Extension no. 5
Date and Time: 08 JULY 2021 @ 16:00-17:00
NB: DUE TO COVID-19, THE MEETING IS CONDITIONAL TO GOVERNMENT REGULATIONS.

Should you wish to register as an I&AP and receive BID, please contact:
Nghivela Planning Consultants
Tel: +264 81 269697
Cell: +264 85 3232 230
Email: planning@nghivela.com.na
Web: www.nghivela.com.na
DEADLINE FOR COMMENTS: 15 JULY 2021



66 | Page

SAPS dismisses threats to stop it from arresting Zuma as meaningless

SHILE MAVUSO

With the clock ticking for former president Jacob Zuma to hand himself over to the authorities to be jailed, or face being embarrassingly frisked and taken to prison, the SAPS has dismissed as meaningless threats by supporters of the former head of state to shield him from arrest – even at the expense of their lives.

In a response to several threats to lay down their lives to thwart the arrest, Brigadier Vish Naidoo, the national police spokesperson, said that when the time came they would do what they had to do, as empowered by the law.

Naidoo's comment comes as the tensions between Zuma supporters and the authorities took an unexpected twist yesterday – and worsened.

"Look, I am not going to comment."

"Look, I am not going to comment on this. Zuma has until Sunday to hand himself in, so let the people say whatever they want to say."

"After Sunday, if he does not hand himself in there is five days for the minister of police and the commissioner of police to decide to hand him to a correctional facility. From then we will start commenting, not now," he said.

Upping the ante on Thursday and with more tension expected in the coming days, Zuma's supporters said they believed that he was the victim of a judicial system that was badly eroded in politics. One Zuma supporter, asking not to be named, said: "This is a matter, our true strength will be seen from Sunday when we start gathering here (Nkandla) in numbers."

All this was triggered by a long-brewing spat between Zuma, the Zondo



Former SA president Jacob Zuma

Commission and the Constitutional Court. On Tuesday, the apex court sentenced Zuma to 15 months' prison for defying its order to testify before the Zondo Commission and answer all questions posed to him.

Tuesday's ruling sparked a war of words between Zuma's supporters and the authorities. Signs of tension started on Wednesday when the MK vets prevented a police van from accessing the Zumas' home. SAPS authorities downplayed that incident as "misinformation" by the media

contingent that took the video and circulated it in a dramatic escalation, yesterday Inkosi Bhukumani Zuma of the local Zuma clan joined a convey of Zuma supporters who went to show their presence and pledge to thwart any arrest. The traditional leader, who refused to speak to Independent Media, together with another Zulu warrior whose name could not be immediately established, had guns hanging from their hips.

The regiments sang traditional Zulu war songs as they marched towards

“

After Sunday, if he does not hand himself in there, it's up to the minister of police and the commissioner of police to decide to hand him to a correctional facility. From then we start commenting, not now”

Zuma's homestead. They sang *Wathintu Zuma, udalwe yini* – which loosely translates to "Why touch Zuma (Jacob), what has intoxicated you?"

Upon arriving at the home, they were allowed inside and continued to sing at the entrance of the home, and then moved to the open fields at its gates.

Speaker after speaker, from the MKMVA to leaders of the convey and the church, vowed that Zuma would not be arrested.

Repeating the words of Zuma's son Edward, they said the authorities would

have to get past them before they could arrest the former president. One of those who vowed that Zuma would never be arrested was Lindani Sicwala, the leader of the convey, who is also a known confidant of former eThekweni mayor Zandile Gumede.

Sicwala advised police officers to fly past them in a helicopter.

"We will be here (in Nkandla) until that day (of arrest) comes. If they want to get inside they will have to use a helicopter to fly past us because they won't use this entrance while we are here," Sicwala said.

Bishop Sordile Ndaba, a senior member of KZN Interfaith, also made a similar statement, adding that Zuma was being politically persecuted and, as such, they would fight off any attempts to jail him. Dumani Cele, who called himself a commander of the MKMVA, said Zuma should be defended and it was a "war" – "the war is not over yet," it would bring shame to the people of KwaZulu-Natal to have the former head of state arrested without them putting up a fight. "As the MK we are saying this is enough. Enough is enough. What is happening to Nkandla (Zuma) shows that the law in South Africa is not being correctly applied, it does not protect his rights. So we are now saying if he is arrested, we will die here. That is what we are saying. As KwaZulu-Natal MK we are saying that if Nkandla is arrested, we will die here ... if something is happening to him, let us die," Cele said. Zuma's whereabouts remain unknown. Bishop Vusi Dube, one of the prominent organisers of his supporters, said their understanding was that he was still consulting his legal team on the way forward.

Political Bureau

South Africa's Ruling ANC Postpones Executive Committee Meeting

South Africa's ruling party postponed a scheduled meeting of its highest decision-making body this weekend before the imprisonment of former President Jacob Zuma.

The Constitutional Court this week sentenced Zuma to 15 months in jail for contempt of court. Thousands of supporters are gathering at Zuma's rural homestead in Nkandla, KwaZulu-Natal province, as he faces a deadline of handing himself over to the authorities on Sunday.

"The national officials were mindful of the situation developing in KwaZulu-Natal and the need for the ANC to give clear and principled leadership to ensure the maintenance of the rule of law and to avoid any violence, injury, or loss of life," the party said in a statement.

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES IN RESPECT TO BASE AND RARE METALS, AND PRECIOUS METALS ON EPL 7413 SITUATED IN ORMPURRE CONSERVANCY, KWENDE REGION

1. PROJECT SITE AND DESCRIPTION

Unasisa Heli Investment cc, intends to apply in order to obtain an Environmental Clearance Certificate for its proposed Base and Rare Metals, and Precious Metals prospecting activities on EPL 7413. The key component of the proposed activity entails geological mapping and survey and manual sample collection for laboratory analysis. Access to the sampling or survey sites will be by existing tracks and on foot where vehicle access is limited.

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are herewith request to register by writing to us at the address below no later than 30 JULY 2020.

3. COMMENTS AND QUERIES

Please register and direct all comments, queries to:
Mr. Vilho Mbuleni, Environmental Assessment Practitioner
Email: enviro@enviro-leap.co.za - Cell: +264 81 232 6843

ENVIROLEAP CONSULTING cc
P.O. Box 9376, Windhoek - Cell: +264 81 232 6843

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A CROCODILE FARM AND PARK ON A PORTION OF THE REMAINDER OF FARM USAKO AND TOWNMANES NO. 14 SOUTHWEST OF THE KHAN RIVER, ERONGA REGION

1. PROJECT SITE AND DESCRIPTION

Reptilia Crocodile Farm and Park cc, intends to apply in order to obtain an Environmental Clearance Certificate for its proposed construction and operation of a Crocodile Farm on ERF on a 3 Ha land area. The key component of the proposed activity includes the construction of the farm, and operation of the facility including crocodile husbandry, lodging and tours.

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are herewith request to register by writing to us at the address below no later than 30 JULY 2020.

3. COMMENTS AND QUERIES

Please register and direct all comments, queries to:
Mr. Vilho Mbuleni, Environmental Assessment Practitioner
Email: enviro@enviro-leap.co.za - Cell: +264 81 232 6843

ENVIROLEAP CONSULTING cc
P.O. Box 9376, Windhoek - Cell: +264 81 232 6843



Jacob Zuma waves to supporters in front of his rural home in Nkandla, KwaZulu-Natal province on July 4. Photograph: Emmanuel Croes/AFP/Getty Images

Defiant Zuma says S.Africa court convicted him without trial

STHEMBILE CELE

Former South African President Jacob Zuma, who is facing a 15-month jail sentence for contempt, accused the nation's top court of unfairly convicting him, and said he feared that the judicial system was being compromised.

"I'm very concerned that South Africa is fast sliding back to apartheid-type rule. I am facing a long detention without trial," Zuma told reporters at his rural home in Nkandla in the eastern KwaZulu-Natal province on Sunday. "I have a duty and obligation to ensure that the dignity and respect for our judiciary is not compromised by sentences that remind our people of the apartheid days."

Zuma ruled South Africa for almost nine scandal-marred years until the ruling party forced him to step down in 2018 to stem a loss of electoral support. The government estimates that more than 500 billion rand (\$35 billion)

was stolen from state coffers under his watch, and dozens of witnesses who've testified before an inquiry headed by acting Chief Justice Raymond Zondo have placed the ex-president at the center of the looting spree.

The Constitutional Court on June 29 found Zuma, 79, guilty of violating its order to testify before Zondo, but on Saturday it agreed to consider his application for the judgment to be reviewed and scheduled a hearing for July 12.

The former president also brought a case in the KwaZulu-Natal division of the High Court to have the Constitutional Court's decision rescinded. That will be heard on Tuesday. Lawyers for Zuma's panel argued in an answering affidavit that the court has no jurisdiction to hear the case. Zuma, who refused to participate in the original Constitutional Court proceedings, denied having done anything wrong and said the tribunal failed to take his age and ill health

into consideration when it decided to incarcerate him.

"I am not asking for sympathy but justice," he said. "If it was up to me, I would once again go to jail for my beliefs as early as today, whether I come out alive or not, but I have never operated as an individual and am therefore guided by views from my family and comrades."

Zuma didn't respond to a question as to whether he will hand himself in to the authorities should his review application fail. He called on his supporters to use peaceful means to protest against the injustice that he said he had suffered. A large contingent of his supporters, a number of whom carried traditional spears and sticks, gathered on Sunday outside his home and vowed to resist any attempt by the police to apprehend him. The sound of sporadic gunfire could be heard, but there were no immediate reports of violent clashes, injuries or arrests. —Mosenberg

TB Joshua's week-long burial procession begins tonight

CHAD WILLIAMS

CAPE TOWN, • The funeral procession of Nigerian pastor and televangelist TB Joshua is set to begin on Monday, with a series of services culminating in a thanksgiving service on July 11.

According to a statement issued by the Joshua family, Monday evening, July 5, will see funeral proceedings starting off with a candlelight procession at a private service.

Joshua, founder of the Synagogue, Church Of All Nations (SCOAN) mega church, died on June 5 after a live broadcast, leaving his wife, three children and millions of followers throughout the African continent.

The church confirmed that all services will be broadcast live on the Christian television network founded by Joshua, Emmanuel TV, as well as on online video-streaming service YouTube.



TB Joshua

On July 6 to 7, tribute services will be held at SCOAN between 10am and 7pm and will be open to the public. This will include services of songs in addition to an all-night prayer service. Seating will be limited, to comply with Covid-19 restrictions.

On July 8, Joshua's body will be lying in state between 11am and 5pm at SCOAN and will be open to the public.

On July 9, the laying to rest and interment segment of the week-long burial proceedings will take place. This will be open to the public, again with

limited seating capacity.

On July 11, a thanksgiving service will take place at SCOAN with limited seating capacity, which will mark off the burial proceedings.

Punch Nigeria reported on Sunday that the Lagos State government has inspected the facilities at SCOAN to ensure compliance with Covid-19 safety precautions in preparation for Joshua's funeral.

According to local media reports, the state government delegation was led by the commissioner for health Professor Akin Abayomi and the director-general of the Lagos State Safety Commission, Lanre Mojola.

African News Agency (ANA)



Two of the Gupta brothers with Duduzane Zuma (R) - son of the former president - who used to work for them

Interpol red notice for Zuma-linked Gupta brothers

South African prosecutors have announced progress in their bid to extradite Indian-born brothers who are accused of being at the centre of a large corruption scandal during Jacob Zuma's presidency.

The prosecution authority said Interpol had issued a "red notice" against two of the Gupta brothers - Anil and Rajesh - making it possible for them to be arrested and extradited.

They fled South Africa in 2018 and are thought to be in the United Arab Emirates.

A South African news site, Sunday World, reports that the family "has been trying without success" to convince the government to renew their passports.

Three Gupta brothers have denied using their close links to Mr Zuma to gain contracts and embezzle state assets.

President Cyril Ramaphosa has estimated that \$40bn (£29bn) was stolen from the state during Mr Zuma's time in office.

| CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES |
|---|
| ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES IN RESPECT TO BASE AND RARE METALS, AND PRECIOUS METALS ON EPL 7413 SITUATED IN OBOMBENI CONSERVANCY, KUNENE REGION |
| 1. PROJECT SITE AND DESCRIPTION |
| Unatiza Heli Investment cc, intends to apply in order to obtain an Environmental Clearance Certificate for its proposed Base and Rare Metals, and Precious Metals prospecting activities on EPL 7413. The key component of the proposed activity entails geological mapping and survey and manual sample collection for laboratory analysis. Access to the sampling or survey sites will be by existing tracks and on foot where vehicle access is limited. |
| 2. PUBLIC PARTICIPATION PROCESS |
| Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input. |
| Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input. |
| 3. COMMENTS AND QUERIES |
| Interested and Affected Parties are herewith request to register by writing to us at the address below no later than 30 JULY 2020. |
| 3. COMMENTS AND QUERIES |
| Please register and direct all comments, queries to: Mr. Vilho Muieni, Environmental Assessment Practitioner Email: eap.trigen@gmail.com - Cell: +264 81 232 6843 |
| ENVIROLEAP CONSULTING CC A registered company under the Companies Act of South Africa Enviro Leap Consulting cc P.O. Box 2070, Windhoek +264 81 232 6843 eap.trigen@gmail.com |

| CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES |
|---|
| ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A CROCODILE FARM AND PARK ON A PORTION OF THE REMAINDER OF FARM USAKOS AND TOWNLANDS NO. 95 SOUTHWEST OF THE KHAN RIVER, ERONGO REGION |
| 1. PROJECT SITE AND DESCRIPTION |
| Reptilia Crocodile Farm and Park cc, intends to apply in order to obtain an Environmental Clearance Certificate for its proposed construction and operation of a Crocodile Farm on ERF on a 3 Ha land area. The key component of the proposed activity includes the construction of the farm, and operation of the facility including crocodile husbandry, lodging and tours. |
| 2. PUBLIC PARTICIPATION PROCESS |
| Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input. |
| Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input. |
| 3. COMMENTS AND QUERIES |
| Interested and Affected Parties are herewith request to register by writing to us at the address below no later than 30 JULY 2020. |
| 3. COMMENTS AND QUERIES |
| Please register and direct all comments, queries to: Mr. Vilho Muieni, Environmental Assessment Practitioner Email: eap.trigen@gmail.com - Cell: +264 81 232 6843 |
| ENVIROLEAP CONSULTING CC A registered company under the Companies Act of South Africa Enviro Leap Consulting cc P.O. Box 2070, Windhoek +264 81 232 6843 eap.trigen@gmail.com |

APPENDIX D – ENVIRONMENTAL MANAGEMENT PLAN

1. PROJECT BACKGROUND

Reptilia Crocodile Farm and Park cc is a fully registered, 100% Namibian owned company that proposes to construct and operate a crocodile farm as well leisure park on a portion of the remaining portion of the farm Usakos and Townlands No. 93 in Usakos. The overall objective of the proposed project is to breed the *Crocodylus niloticus* (Nile crocodiles) for conservation purposes, tourism and hide production, thus promoting the long-term survival of the species. The proposed development shall be achieved through the high-level interlinked objectives which include, but are not limited to biodiversity conservation, improved economic growth and living standards at local, regional, national and international levels.

The envisaged operational activities shall include, but are not limited to the following:

- **Ranching (egg collection):** Although some eggs shall also be sourced “on-farm” through breeding programs. The proponent shall enlist the inhabitants of communities where the Nile Crocodiles occurs naturally in their habitat, namely within the Kavango East Region, Kavango West Region and parts of the Zambezi Region to collect eggs for the farm, as part of the incentive-driven conservation programs. The egg collection shall occur from July through November every year.
- **Hatching:** Eggs are transferred to on-farm incubators until hatched where temperature and humidity are carefully controlled to ensure appropriate success.
- **Growing Out:** Juvenile crocodiles shall be typically grown for 1.5 years or until they are approximately 1.2 m long – this shall depend on the intended use. For example, skins produced for a handbag are grown to a belly width of approximately 40 cm (1.2 m long crocodile). The size required varies with the fashion of the day, for example, larger or smaller handbags. Whereas, very large crocodiles, for example, greater than 1.2 m long can be used for pants or a suit.
- **Breeding Program:** Crocodiles shall also be grown and maintained for on-farm breeding and crocodile-based tourism. Farm associated tourism includes crocodile viewing, crocodile feeding, and crocodile shows performed by trained professional wranglers.
- **Harvesting:** Once ready for slaughter the crocodiles are sent to the abattoir where skins shall be removed, and all body parts shall thereafter be separated for sale or value-adding. The skins hold the highest commercial value followed by meat and other products.

2. LEGISLATIONS REQUIREMENT

The proposed project is listed as an activity requiring an environmental clearance certificate as per the Environmental Management Act No.7 of 2007 and its associated regulation 29 (sub-regulation 9) of Government Notice No. 29 of 2012. Reptilia Crocodile Farm and Park has appointed Mr. Titus Shuuya to conduct an environmental assessment and facilitate the process of obtaining an environmental clearance certificate.

3. OVERALL OBJECTIVES OF THE EMP

EMP is a legal binding tool that describes how the proposed project might impact the natural environment in which it occurs and set out clear commitments from the proponent on how those impacts will be avoided, minimised and managed so that they are environmentally acceptable. The overall environmental objectives of the EMP that have been set for the Reptilia Crocodile Farm and Park include, but are not limited to:

- Compliance with the national legislation and standards as well international best practices for the protection of the environment;
- Limit potential impacts on biodiversity through the minimisation of the footprint (as far as practically possible) and the conservation of residual habitat within the project vicinity;
- Ensure that the local communities are informed of proposed project activities through the implementation of forums for communication and constructive dialogue;
- Ensure the legal and appropriate management and disposal of general and hazardous waste as well as wastewater and effluent discharge, through the implementation of a strategy for the minimisation, recycling, management, temporary storage and removal of waste;
- Develop, implement and manage monitoring systems to ensure good environmental performance in respect of the following: ground and surface water, air quality, noise and vibration, biodiversity, wastewater and effluent and rehabilitation.

4. MANAGEMENT, LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THE EMP

This EMP is a legal binding document, however, it does not include procedures or measures for compliance with statutory occupational health and safety requirements. In case there is any conflict between the measures of this EMP, any contractual obligations, contract (s) and other legal requirements shall be considered first. This EMP has been compiled based on the information provided in the environmental scoping report and it shall be amended if the proposed project design, construction and operational methods change.

5. POTENTIAL ENVIRONMENTAL IMPACTS/ISSUES, MITIGATION AND MONITORING PLAN

5.1. Biophysical Environment Management and Mitigation

| Issue | Management commitment | Phase |
|---|---|------------|
| Soil, water, air and waste pollution; Sand abstraction/ extraction; Disturbance of the topsoil | <ul style="list-style-type: none"> • Application of a good housekeeping policy across the work areas • All hydrocarbons, chemicals and fertilizers should be stored within the secondary containment e.g., bund wall. • Minimal vegetation thinning and exposure of soils, however, vegetation thinning should be avoided 100 m from the watercourse. • Identification of areas with high potential of soil erosion risk, and measures should be in place to prevent soil erosion and removal or disturbance of topsoil should be minimized. • Sand should only be extracted or abstracted from an existing permitted borrow pit. | All |
| Disturbances to the biodiversity i.e., Fauna and Flora | <ul style="list-style-type: none"> • Ensure application of the company policies relating to environmental sustainability. • No vegetation clearing is envisaged, but only vegetation thinning especially that of the alien species. • No harm to biodiversity or collection shall be tolerated, including collection firewood. • Even though it is unlikely, sighting of any extraordinary biodiversity and or cultural, heritage and or archeological artifacts must be reported immediately to the relevant authorities. In addition, appropriate permits and licenses for the purchase, storage and use or handling of chemicals (including fertilisers, pesticides, fuel and lubricants) must be obtained before commencing the operational phase of the proposed activity. • All hydrocarbons should be stored within the secondary containment and drip trays shall be in place for accidentally spills – and should spillage (minor or major), it should be cleaned immediately. • The electrical fence shall be constructed appropriately to prevent injury to animals, including avifauna species. | All |
| Responsibility | Reptilia Crocodile Farm and Park' Project manager | |

5.2. Social, Health and Safety Management and Mitigation

| Issue | Management commitment | Phase |
|--|---|------------|
| Accident/incident and near-misses | <ul style="list-style-type: none"> • Development of a health and safety plan – this shall be communicated through site induction. • Provision of appropriate PPE to all the employees (both permanent and temporary) and child labour is prohibited. • Fire protection equipment e.g., fire extinguishers should be charged and provided at the designated areas • All accidents/incidents including near-misses should immediately be reported to the Project Manager – and should be recorded in an incident register. All employees attend the health, safety and environmental induction before starting with work. • Ensure first aid training is provided to certain employees and the first aid box are available and well-stocked onsite. • Adhere to the speed limit at all times. • All accidents/incidents and near-misses should be reported to the project manager and other relevant authorities within 24 hours. • No employees shall be allowed to operate any machinery, equipment including vehicles if not competent e.g., without a valid competent certificate or driving license. | All |
| Employment creation and capacity building | <ul style="list-style-type: none"> • Priority for employment should be given to the local community, especially for an unskilled position. • Goods and services should be sourced from the local business to | All |

| Issue | Management commitment | Phase |
|-----------------------|---|-------|
| | <p>promote and improve the local economy.</p> <ul style="list-style-type: none"> • Promote and engage and/or involve local school and/or regional as well as I&APs into the crocodile farming activities such as viewing and feeding as part of environmental education benefit. • All employees hired should sign a written employment contract before commencing with the work. The employment contract should comply with the Labour Act and other applicable regulatory frameworks. • All employees should attend health, safety and environmental site induction before commencing with their work. | |
| Responsibility | Reptilia Crocodile Farm and Park (Project manager) | |

5.3. Stakeholder Management and Mitigation

Channels of communication must be maintained over the life of the project for surrounding landowners, the general public members, local and traditional authorities. The stakeholder's communication management and mitigation plan are summarized below.

| Issue | Management commitment | Phase |
|--|--|------------|
| Understanding who the stakeholders are | <ul style="list-style-type: none"> • Maintain and update the stakeholder register, including stakeholders' needs and expectations. • A representative database would include government, employees, service providers, contractors, local communities, traditional authorities, NGOs, shareholders, customers, the investment sector, community-based organizations, nearest neighbours, suppliers and the media. • Ensure that marginalized and vulnerable groups are also considered in the stakeholder communication process. • Record partnership • ps (if there are any) as well as their roles, responsibilities, capacity and contribution to development. | All |
| Liaising with interested and affected parties at all phases | <ul style="list-style-type: none"> • Devise and implement a stakeholder communication and engagement strategy. • Conduct a health, safety and environmental visitors induction, especially those that would like to view the crocodile farm. | All |
| Responsibility | Reptilia Crocodile Farm and Park (Project manager) | |

6. EMERGENCY AND RESPONSE CONTACTS

The primary contact person in the event of health, safety and environmental emergency shall be the Project or Site manager. All health, safety and environmental accidents/incidents including near-misses should be recorded and reported to the Project or Site manager within 24 hours. Below is a list of the emergency contact details in Usakos town.

| Ambulance | Police | Fire brigade | Hospital | Electricity, sewage & water |
|-------------------|-------------------|-------------------|-------------------|-----------------------------|
| +264 (64) 53-0023 | +264(0)64 530 003 | +264 (64) 53-0023 | +264 (64) 53-0023 | +264 (64) 53-0023 |

7. IMPLEMENTATION, MONITORING AND EVALUATION OF THE EMP

This EMP is a legal binding document that has been prepared as per Environmental Management Act No.7 of 2007 and its associated Regulations as per agreement with the proponent. It has been prepared based on the information provided by the proponent, literature review, consultation with I&APs and information gathered from the site.