



KELP BLUE NAMIBIA

EIA FOR KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

BACKGROUND INFORMATION DOCUMENT

1. INTRODUCTION

Kelp Blue Namibia (Pty) Ltd (Kelp Blue), a privately owned Company, intends to cultivate Giant Kelp at a commercial scale, off the coast of southern Namibia, near Lüderitz.

Prior to them implementing the “commercial scale” cultivation project, Kelp Blue intends to first implement a Pilot Project to provide them with important information and proof of their concept. The Pilot Project will test the proposed infrastructure design options and associated cultivation activities and how this will work in tandem with the biosystems. It will also validate assumptions for growth rates, harvestability of the Giant Kelp, sustainability and costs.

Furthermore, the Pilot Project will allow monitoring of potential environmental impacts associated with the proposed project in the Namibian sea waters, prior to the further planning and implementation of a full scale (i.e. commercial) project.

As part of its Kelp Cultivation Pilot Project, Kelp Blue proposes the following (refer to Figure 1 and section 5):

- A grow-out area of ± 20 hectares
- Three pilot cultivation areas of ± 1 km² each.

2. ENVIRONMENTAL CLEARANCE

Prior to the commencement of the proposed Kelp Cultivation Pilot Project activities, an application for an environmental clearance will be submitted in terms of the Environmental Management Act, 7 of 2007 and the associated environmental impact assessment (EIA) Regulations (January 2012) to the Ministry of Fisheries and Marine Resources (MFMR), as the competent authority. MFMR will review the application and relevant reports and submit their comments to the Ministry of Environment, Forestry and Tourism (MEFT).

An EIA process will be conducted in terms of the above-mentioned Act and Regulations.

Namisun Environmental Projects & Development (Namisun) has been appointed by Kelp Blue as the independent Environmental Assessment Practitioner to undertake the EIA process for the proposed Pilot Project.

3. PURPOSE OF THIS DOCUMENT

This document has been prepared by Namisun to inform you about:

- The proposed pilot project activities (Section 5);
- The EIA process (section 6);
- Key environmental issues (i.e. aspects and potential impacts) (Section 7); and
- How you can register as an interested and /or affected party (I&AP) (sections 4 and 8).

4. PARTICIPATION IN THE EIA PROCESS

Public participation is an essential part of the EIA process. If you want to register as an I&AP and have input into the EIA process, please refer to the box below. All comments / questions / concerns will be recorded and addressed in the EIA process.

HOW TO REGISTER AS AN I&AP

Please register as an I&AP and submit any questions or comments by means of the enclosed registration / comment sheet or through communication with Namisun.

Attention: Werner Petrick
E-mail address: wpetrick@namisun.com
Cell number: +264 (0)81 739 4591

If you would like your comments to be addressed in the EIA Scoping Report please submit them by
26 May 2020.

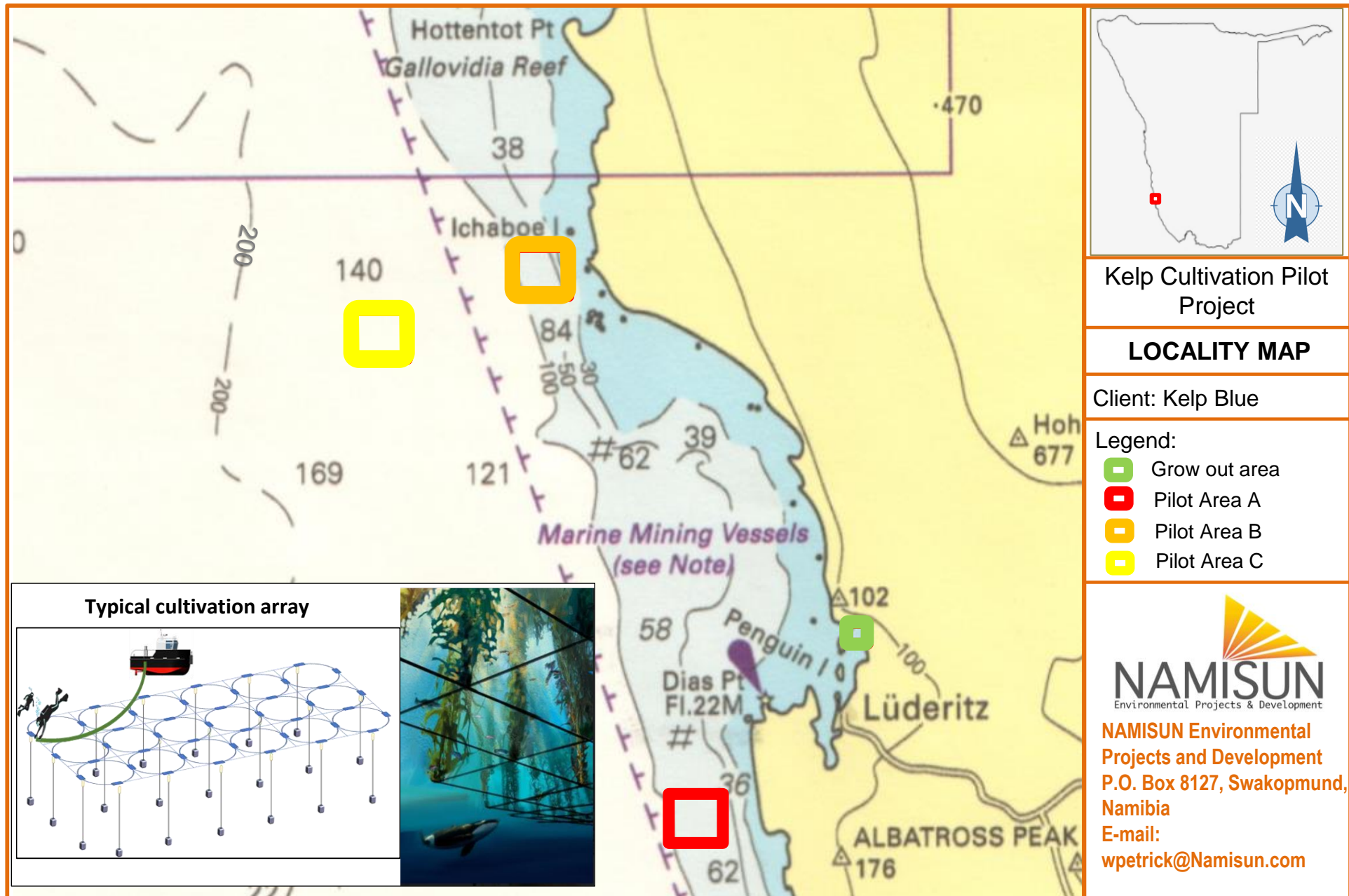


Figure 1: Location (indicative) of the proposed Kelp Pilot Project areas and a typical cultivation array

5. DESCRIPTION OF THE PROPOSED KELP HARVESTING PILOT PROJECT ACTIVITIES

Kelp Blue ultimately considers implementing commercial scale Giant Kelp cultivation, which would involve (amongst others) the installation of multiple cultivation arrays anchored between 50 m and 200 m water depth at sea, including installation of seed-lines.

Their proposed Pilot Project will, however, first be implemented to prove various concepts and the feasibility of the commercial scale project.

The following conditions off the coast of Southern Namibia - near Lüderitz, are amongst others considered to be favorable for Giant Kelp Cultivation: Upwelling throughout the year; low average annual temperatures; relatively calm seas, favorable solar radiation, dryness on land, etc.

Kelp Blue proposes the following activities as part of the Kelp Cultivation Pilot Project:

1. Collection of fertile sporophylls and hatchery activities

Fertile sporophylls will be collected from various international locations, and selected on the basis of healthy, abundant, deep kelp plants in a variety of water movement conditions. Sporophylls will be hatched and propagated and transported to Kelp Blue's proposed laboratory in Lüderitz in the form of sporophyte concentrations and seeded twine.

During the laboratory / hatchery activities, domestic water, trace amounts of iodine, trace amounts of common minerals that mimic seawater composition, and seawater will be used.

Seawater treatment processes will consist of UV-filtration and mechanical filtration (and autoclaving), but do not include the introduction of any chemicals except for normal cleaning agents.

2. Cultivation and harvesting

The initial 'grow-out' will involve a simple horizontal rope suspended between buoys. The-grow out area will be ±20 hectares in size, containing numerous buoy / rope arrays. Kelp Blue intends to develop the grow out area in semi-sheltered waters behind Seal Island in the northern bay of Lüderitz, at 8 m water depth (see Figure 1).

Three pilot cultivation areas of ± 1 km² each will be utilized, as follows (see Figure 1):

- Pilot Area A: In 70 m water depth to the south-southwest of Diaz Point.
- Pilot Area B: In 50 m water depth, to the southwest of Ichaboe Island.

- Pilot Area C: In 150 m water depth to the west-southwest of Ichaboe Island.

Up to four styles of cultivation arrays will be tested during the pilot phase to test different configurations and materials. A typical array design is presented in Figure 1.

The only feasible means for control of epiphytes and predators of the giant kelp is the bio-controls provided by the naturally developing ecosystem on and around the array. Marine growth will therefore be actively encouraged on the arrays.

Navigation & meteorological buoys will be painted against corrosion and biofouling and may be on occasion cleaned of build-up of marine growth.

No further biofouling mitigation is planned.

3. Harvesting and processing

Kelp harvesting will be done with small boats, by hand. The harvested kelp will be air dried and milled with a simple commercially available herb or sugar cane grinding mill.

The milled kelp from the pilot project will be marketed to Namibian farmers as fertilizer/soil improver.

Part of the harvest will be processed experimentally for the extraction of protein, alginate, and cellulose in lab conditions in Lüderitz and at labs in Europe, to establish base quality and physical / chemical properties of the extracts.

4. Marine vessels

The following marine vessels will be required:

- Zodiac style vessel for initial environmental monitoring and site selection, and (later) ongoing monitoring, including diver support.
- Temporary vessel support for load-out and deployment of pilot arrays, including seeding on board.
- Possibly different vessel(s) will be required for positioning anchors and buoys for the array.

5. Onshore base / infrastructure

Kelp Blue will rent suitable facilities for office space and a laboratory / mini-hatchery in Lüderitz.

An appropriate location will be sourced for receipt, secure storage, and assembly of the materials for the pilot trial arrays. The area required is approximately 2000 m² and would ideally be adjacent to the sea for convenient loading out of assembled arrays in whole or in part.

6. EIA PROCESS

The main objectives of the EIA process are to:

- Provide information on the proposed pilot project activities and facilities / infrastructure;
- Describe the current environment in which it will be situated;
- Identifies, in consultation with I&APs, the potential negative and positive environmental aspects;
- Assesses the associated potential impacts of the proposed pilot project;
- Report on measures required to avoid impacts or mitigate such impacts to acceptable levels.
- Develop specific environmental monitoring requirements (including field based measurements to be implemented during the pilot project) that will provide further information to Kelp Blue regarding the implementation of the “commercial scale project”.

The likely steps and timeframes of the EIA process are provided in Table 1.

Table 1: EIA Process for the proposed Kelp Harvesting Pilot

STEPS IN THE EIA PROCESS
<p>PHASE I: Project initiation & Internal Screening (March - May 2020)</p> <ul style="list-style-type: none"> • EIA project initiation. • Notify MFMR and MEFT through the submission of the EIA Application Form and online (MEFT) Registration. • Site visit and identify environmental issues. • Identify key stakeholders.
<p>PHASE II – Combined Scoping & Assessment Phase and Environmental Management Plan (EMP) (May – July 2020)</p> <ul style="list-style-type: none"> • Notify other regulatory authorities and I&APs of the proposed project (via newspaper advertisements, this document, emails, site notices). • Conduct key stakeholder focus group meetings. • Carry out specialist investigations. • Assess the potential impacts of the proposed pilot project activities and compile a Scoping (including assessment) Report and EMP. • Distribute the EIA reports for review and comment by regulatory authorities and I&APs. • Consider comments received and compile the final reports (including an Issues and Response Report). • Submit the final reports to MFMR and MEFT for their review and decision-making.

Should Kelp Blue find all relevant aspects of the pilot project to be feasible and they plan to proceed with the Commercial Scale Project, a separate EIA (application) process will have to be conducted.

7. KEY ISSUES RELATED TO THE PROPOSED PILOT PROJECT

Various experts (‘Environmental Specialists’) form part of the Environmental Team, conducting the EIA Process for the pilot project, to assess the following key issues:

- Disturbance of benthic habitats and associated communities during installation and anchoring of the arrays;
- Biosecurity risks of introducing non-native kelp species and associated impacts to the Benguela ecosystem;
- Effects on seawater nutrient chemistry and clarity;
- Biodeposition of detritus below the arrays and associated changes to physico-chemical and biological properties of the sediments;
- Alteration of plankton community structure around arrays;
- Habitat creation and/or exclusion and physical presence of floating structures in the pelagic realm;
- Hazard to marine traffic and conflict with other users (e.g. fisheries and diamond mining);
- Marine mammal entanglement risks in ropes and buoys;
- Noise and pollution effects from machinery required during array installation and kelp harvesting; and
- Seawater abstraction and discharges from the land-based hatchery.

8. INVITATION TO REGISTER AND COMMENT

Please complete the enclosed registration/comment form or contact Namisun to register as an I&AP.

For comments to be included in the Scoping (including Impact Assessment) Report they must reach Namisun by **no later than 26 May 2020**.

KELP BLUE NAMIBIA

EIA FOR KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

I&AP REGISTRATION AND COMMENTS FORM

DATE:

I&AP PARTICULARS:

NAME AND SURNAME:

ORGANISATION:

E-MAIL:

TEL & CELL PHONE NUMBERS:

PLEASE IDENTIFY YOUR INTERS IN THE PROPOSED PROJECT:

PLEASE PROVIDE YOUR COMMENTS / QUESTIONS:

From: Werner Petrick <wpetrick@namisun.com>

Sent: Thursday, 14 May 2020 9:07 pm

To: Werner Petrick <wpetrick@namisun.com>

Subject: EIA NOTIFICATION - KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

Dear Sir/Madam

This email and attached background information document (BID) provides formal notification under the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental Impact Assessment (EIA) Regulations, of an application for an environmental clearance certificate by Kelp Blue Namibia (Pty) Ltd (Kelp Blue) for their proposed **Giant Kelp Cultivation Pilot Project**, off the coast of southern Namibia, near Lüderitz.

Namisun Environmental Projects & Development (Namisun) has been appointed by Kelp Blue as the independent Environmental Assessment Practitioner to undertake the EIA process for the proposed project.

Registration to receive notifications / information and opportunity to comment:

To register as an interested and affected party for the proposed Pilot Project, please submit your name and contact details to Namisun by e-mail, or by contacting Werner Petrick. Please refer to the attached BID for further information regarding the proposed activities and EIA process.

If you would like your comments to be addressed in the EIA Scoping Report please submit them to Namisun by **no later than 26 May 2020**.

Due to COVID-19 related restrictions on public gatherings, no public meetings will be held. However, virtual (via WhatsApp or Zoom) or face-to-face meetings (in Lüderitz) could be arranged during the comment period should you wish to discuss the project and EIA process.

Should you have any queries in this regard please do not hesitate to contact the undersigned.

Yours sincerely,



Werner Petrick
+264(0)81 140 5968

From: Werner Petrick [mailto:wpetrick@namisun.com]

Sent: Friday, 17 July 2020 16:00

Subject: EIA FOR KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

Dear Sir / Madam

**ENVIRONMENTAL IMPACTS ASSESSMENT (EIA) FOR KELP BLUE NAMIBIA'S
PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ**

With reference to earlier correspondence regarding the above mentioned project and EIA process, please be advised that the Environmental Impact Assessment (EIA) Scoping & Assessment Report and Environmental Management Plan are now available for review and comment.

A hard copy and an electronic copy of the full report (including all Appendices) are available at the Lüderitz Information Centre (i.e. Lüderitz Safaris and Tours, Bismarck Street), from the 21st of July 2020.


Attached, please find the Main Report (excluding Appendices). An electronic copy of the full report is also available on request to Namisun.

Please send any comments you might have on the report to the undersigned by **14 August 2020**.

Yours sincerely,



Werner Petrick
+264(0)81 140 5968




KELP BLUE NAMIBIA (PTY) LTD

EIA FOR THE PROPOSED KELP CULTIVATION PILOT PROJECT
NEAR LÜDERITZ

Information Sharing Meeting


May 2020



NAMISUN
Environmental Impact & Assessment

Objectives of the meeting


- Provide a description of the proposed “Kelp Blue Pilot Project” activities
- Provide a description of the EIA process
- Provide IAPs with initial opportunity to be involved in the EIA
- Identify any potential environmental issues and impacts
- Describe the way forward, highlighting further opportunities to be involved in the EIA process



3

Agenda


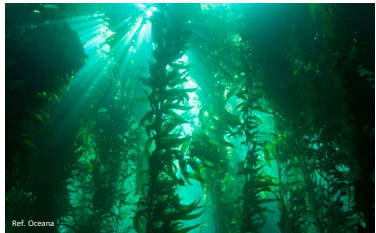
- Introduction
 - Meeting Procedure
 - General introduction
 - Objectives of the meeting
- Description of the proposed Pilot Project activities
- EIA process
- Key potential environmental issues
- Question and answer session
- Way forward and closure



2

Meeting Procedures


- Opportunity to ask questions / give comments
- Minutes are being taken
- Please sign the Attendance Register



4


General Introduction

- Kelp Blue (ultimately) intends to cultivate Giant Kelp at a commercial scale, off the coast of southern Namibia, near Lüderitz.
- Two phases:
 - Pilot phase**
 - Provide them with important information and proof of their concept
 - Test the proposed infrastructure design options and associated cultivation activities
 - Test how this will work in tandem with the biosystems
 - Validate assumptions for growth rates, harvestability of the Giant Kelp, sustainability and costs
 - Commercial phase**
 - Not part of the current EIA Scope of activities

5 

Giant Kelp Project Objectives and Motivation

- The fastest growing organism on the planet
- A keystone species for marine biodiversity
- The 2nd biggest source of CO₂ sequestration on the planet
- Source of high value marketable extracts: polyphenols, phlorotannins, mannitol, furfuran, bio-actives, protein, cellulose, hydrocolloids and fertilizer
- Possible to repeat harvest every 3 months for at least 7 years without losing virility
- Can be cultivated on artificial substrate
- Grows on rocky sea-beds in cold, transparent nutrient dense water 10 to 40m deep (i.e. in upwelling current systems). Once at surface, streams for dozens of meters
- Grows naturally along the west coast of the Americas and almost all coasts of the Southern Oceans

7 


Kelp Blue's Project Objectives and Motivation


"To establish a new form of farming, that produces essential goods for humanity (food, feed, fertiliser, textiles, medical products) in a sustainable/environmentally positive manner:

- Draw down CO₂
- boosts marine biodiversity,
- boosts fish stocks".

Namibia / Lüderitz is preferred location:


- Productivity of the Benguela current - upwelling system & dissolved minerals.






"Potential benefits:

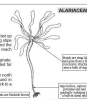
- Job creation, investment, research & academia, biodiversity, marine life, fish stocks boosts, eventual scuba diving tourism, etc."

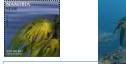
6 

Giant Kelp vs 2 endemic species to Namibia

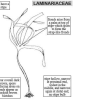



Ecklonia Maxima



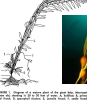


Laminaria Pallida






Macrocystis Pyrifera



Characteristic	Relevance	Ecklonia Maxima	Laminaria Pallida	Macrocystis Pyrifera
Waterdepth	Offshore structure capital, vessel risk (therefore has to be >20m)	5-14m	5-30m	12-60m
Repeat Harvestability	Operating cost uneconomic if cannot be repeat harvested	No (leaves only)	No	YES
Lifecycle	Re-landing costs – preference for higher lifecycles	6-7 years	3-4 years	7-25 years
Biomass productivity	Net yield	Medium	Low	HIGH
Biodiversity boost	The level to which the species stimulates residence of multiple species	High	Medium	High
Locale	Endemic/non-endemic	Endemic	Endemic	Found in S-A

8 

Pilot Project Description

Pilot monitoring

Collect fertile sporophylls and hatchery activities

↓

Cultivation

↓

Harvesting

↓

Processing

NAMISUN

Pilot Project Description

Cultivation & harvesting

- Initial 'Grow-out'
 - Simple horizontal rope suspended between buoys.
 - ±20 ha grow out area - numerous buoy / rope arrays.
 - Semi-sheltered waters behind Seal Island in the northern bay of Lüderitz, at 8 m water depth.
- Pilot cultivation areas
 - Three areas of ± 1 km² each
 - A: 70 m water depth - south-southwest of Diaz Point.
 - B: 50 m water depth - southwest of Ichaboe Island.
 - C: 150 m water depth - west-southwest of Ichaboe Island.

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Pilot Project Description

Collection of fertile sporophylls and hatchery activities

- Fertile sporophylls collected from various international locations
- Sporophylls hatched and propagated and transported to proposed laboratory in Lüderitz – sporophyte concentrations and seeded twine.
- During the laboratory / hatchery activities - use domestic water, trace amounts of iodine, trace amounts of common minerals that mimic seawater composition and seawater.
- Seawater treatment processes will consist of UV-filtration and mechanical filtration (and autoclaving).

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Pilot Project Description

Cultivation & harvesting

- Test up to four styles of cultivation arrays
- Test different configurations and materials

Typical cultivation array

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Pilot Project Description

Cultivation & harvesting

- Control of epiphytes and predators of the giant kelp - bio-controls provided by the naturally developing ecosystem on and around the array.
- Marine growth actively encouraged on the arrays.
- Navigation & meteorological buoys will be painted against corrosion and biofouling and may be on occasion cleaned of build-up of marine growth.
- No further biofouling mitigation is planned.

13



Pilot Project Description

Marine vessels

- Zodiac style vessel for initial environmental monitoring and site selection, and (later) ongoing monitoring, including diver support.
- Temporary vessel support for load-out and deployment of pilot arrays, including seeding on board.
- Possibly different vessel(s) will be required for positioning anchors and buoys for the array.

15



Pilot Project Description

Harvesting and processing

- Kelp harvesting by small boats, by hand.
- Harvested kelp air dried and milled - herb /sugar cane grinding mill.
- The milled kelp marketed as fertilizer/soil improver.
- Part of the harvest will be processed experimentally for the extraction of protein, alginate, and cellulose
 - Establish base quality and physical / chemical properties of the extracts.

14



Pilot Project Description

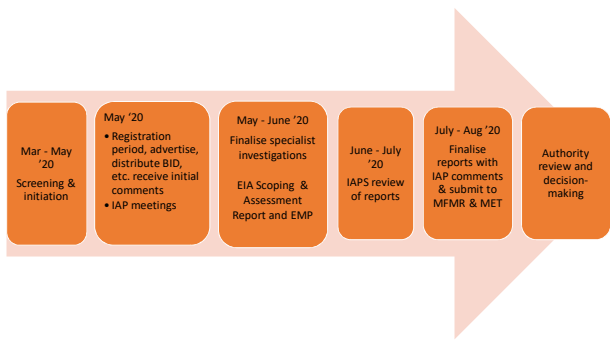
Onshore base / infrastructure

- Rent suitable facilities for office space and a laboratory / mini-hatchery in Lüderitz.
- An appropriate location will be sourced for:
 - Receipt, secure storage, and assembly of the materials for the pilot trial arrays.
 - ± 2000 m² area required
 - Ideally located adjacent to the sea for convenient loading out of assembled arrays in whole or in part.

16



EIA Process



17

Key Potential Issues

- Habitat creation and/or exclusion and physical presence of floating structures in the pelagic realm
- Hazard to marine traffic and conflict with other users (e.g. fisheries and diamond mining)
- Marine mammal entanglement risks in ropes and buoys
- Noise and pollution effects from machinery required during array installation and kelp harvesting
- Seawater abstraction and discharges from the land-based hatchery.

19

Key Potential Issues

- Disturbance of benthic habitats and associated communities during installation and anchoring of the arrays
- Biosecurity risks of introducing non-native kelp species and associated impacts to the Benguela ecosystem
- Effects on seawater nutrient chemistry and clarity
- Biodeposition of detritus below the arrays and associated changes to physico-chemical and biological properties of the sediments
- Alteration of plankton community structure around arrays


18

Way Forward

- Comments received to date and during this meeting will be included in the Draft EIA Scoping & Assessment Report.
- Draft Report will be distributed for comment: Towards **beginning of July 2020**.

Attention: Werner Petrick
 E-mail address: wpetrick@namisun.com
 Cell number: +264 (0)81 739 4591

20



Questions / Comments ?

Rebecca Ramalay ◉

21

NAMISUN

The image shows an underwater scene with a dense kelp forest. The kelp stalks are dark and vertical, with large, flat, yellowish-green blades. The water is clear and blue, with light filtering through from above. A semi-transparent blue box with the text "Questions / Comments ?" is centered over the image. In the bottom left corner of the image area, the name "Rebecca Ramalay" is written with a small circular icon. The number "21" is in the bottom left corner of the slide frame, and the "NAMISUN" logo is in the bottom right corner.



NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

Kelp Blue Namibia (Pty) Ltd (Kelp Blue) herewith gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulations 19 and 21 of the Environmental Impact Assessment (EIA) Regulations (January 2012), of their proposed Giant Kelp cultivation pilot project off the coast of southern Namibia, near Lüderitz.

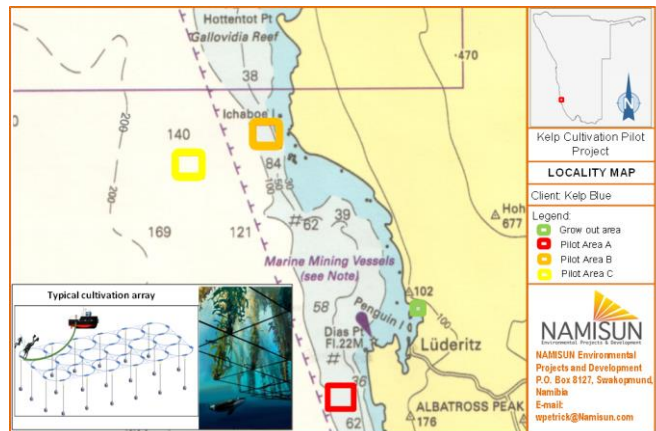
Prior to implementing the proposed pilot project activities, an EIA process will be conducted and an application for an environmental clearance certificate will be submitted to the Ministry of Fisheries and Marine Resources as the competent authority who will review and forward the application to the Ministry of Environment, Forestry and Tourism (Environmental Commissioner) in terms of the above mentioned regulations. This advertisement forms part of the EIA public participation process.

Applicant: Kelp Blue Namibia.

Nature and location of the proposed activity:

Prior to them implementing a “commercial scale” cultivation project, Kelp Blue intends to first implement pilot trials. As part of its Kelp Cultivation Pilot Project, Kelp Blue proposes the following key activities:

- Collection of fertile sporophylls from various international locations.
- Sporophylls will be hatched and propagated and transported to Kelp Blue's proposed laboratory in Lüderitz in the form of sporophyte concentrations and seeded twine.
- An initial grow-out of Kelp in an area of ± 20 hectares.
- Three pilot cultivation areas of ± 1 km² each, as follows:
 - Pilot Area A: In 70 m water depth to the south-southwest of Diaz Point.
 - Pilot Area B: In 50 m water depth, to the southwest of Ichaboe Island.
 - Pilot Area C: In 150 m water depth to the west-southwest of Ichaboe Island.
- Kelp harvesting with small boats (by hand), drying and milling.
- Milled kelp will, amongst others, be marketed to Namibian farmers as fertilizer/soil improver.



Independent Environmental Assessment Practitioner:

Namisun Environmental Projects & Development (Namisun) has been appointed by Kelp Blue as the independent Environmental Assessment Practitioner to undertake the EIA process for the proposed project.

Contact Person: Werner Petrick

Tel: +264 (0)81 739 4591

E-mail: wpetrick@namisun.com

Registration to receive notifications / information and opportunity to comment:

To register as an interested and affected party for the proposed Pilot Project, please submit your name and contact details to Namisun by e-mail, or by contacting Werner Petrick. A Background Information Document (BID) is available for a review and comment period from **11 to 26 May 2020**. Electronic copies of the BID are available on request from Namisun as per above details.

If you would like your comments to be addressed in the EIA Scoping Report please submit them to Namisun by **no later than 26 May 2020**.

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Five Roses Aquaculture

MEETING DETAILS		
DATE	25 May 2020	
TIME:	16:00	
VENUE:	Nest Hotel Luderitz	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	J. Fleidl (JF)	Five Roses Aquaculture cc
	N. Klosta (NK)	Dream Oyster Galorf cc
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

JF and NK raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 17:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY JF AND NK

No.	Questions / Comment / Issue raised by JF and NK
1	Why bring an alien species in to the Namibian waters and not cultivate, grow and harvest our local species?
2	Will the ropes/chains that will hold the array structure in place be suspended up to 20 meters?
3	Will the areas where the pilot arrays and grow out area be zoned off? Will other vessels not be able to cross these areas?
4	Will the mooring blocks be fixed below the surface of the sea?
5	The proposed grow out and pilot areas shown on the map will not be accessible for small boats. The open sea is too dangerous. The wind blows very strong and swells can be 3 to 4 m. October to January / February is the windy season, with very strong winds during this time.
6	You would need a “mother / main vessels” anchored at a specific locations to support the other smaller zodiac vessels that would move to the pilot areas and back.
7	<p>The arrays should be anchored with properly designed mooring blocks. Any anchor will not work due the immense force of the water, which will cause movement of certain anchor designs.</p> <p>The Kelp on the structures would lead to a big mass and momentum from the strong force of the currents, etc.</p> <p>A recommendation is to change the design of the blocks to a triangular shape, rather than a square shape. From experience, a vortex is formed behind square shape blocks which cause the blocks to tumble over and move.</p>
8	Big mooring blocks will be required. How will you this be transported and positioned on the seafloor?
9	With regards to you onshore infrastructure requirements, etc., please note that we have suitable areas available and would be able to assist.
10	It is good to know JP Roux & Jessica Kemper are part of the EIA Team. They will provide the required specialist input into the studies.
11	The Commercial scale project (should it be proven to be feasible) could be a good business and benefit the town of Lüderitz
12	Who are the investors??
13	We've grown/harvested Gracilaria for 15 years on 45 ha area in the 2 nd lagoon at oyster farm. This was also re-harvested many times.

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Lüderitz Town Council

MEETING DETAILS		
DATE	27 May 2020	
TIME:	7:30	
VENUE:	Lüderitz Town Council Office	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	Reinhardt Ochs (RO)	Lüderitz Town Council (LTC)
	I. N Tjipume (IT)	LTC
	L. Kaangundue (LK)	LTC
	E. Da Fonseca (EF)	LTC
	R. Beukes (RB)	LTC
	Nazinia Khoa (NK)	LTC
	O. Shipenga (OS)	LTC
	M Sanzila (MS)	Marvin Consultants
	V. Kinyaga (VK)	Kelp Blue Namibia
W. Petrick (WP)	Namisun	

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

Mr Ochs (RO), the CEO of the LTC, introduced himself and the rest of the Council members. He welcomed all present.

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and thanked Mr Ochs and the rest of the Council for their attendance and the early meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

The LTC raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 9:30.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY LTC

No.	Questions / Comment / Issue raised by MFMR
1	What is the reason / purpose for implementing this project?
2	Who decided that an EIA needs to be conducted? Did someone from Lüderitz ask you to do it?
3	Please confirm where the proposed Giant Kelp will be grown and harvested.
4	The LTC indicated that the local Kelp species have never been harvested. Growing and harvesting the local species also needs to be considered as part of this project.
5	When you introduce new species other local animals might find it strange and it might impact them?
6	Will this giant Kelp species, being alien, not impact our local Marine ecology and the local Kelp Species negatively?
7	The rock lobster must not be impacted, this is a potential concern.
8	What products can be produced from the Giant Kelp Species? Does this differ from the local species?
9	Will product be exported? Please ensure that the “value addition” must be locally. In this regard, most products gets exported and then bought back at a significantly increase price. This does not benefit Namibia and Lüderitz economically.
10	Infrastructure must also be constructed locally and the material obtained locally, as far as possible.
11	Please confirm the Repeat Harvestability of the giant Kelp. The local species also grow back and can be re-harvested.
12	The Benguela current and the associated marine ecology took millions of years to establish. Was this species, now proposed to be introduced in the Benguela current in Namibian water, already introduced elsewhere?
13	Please confirm, will this pilot project first be introduced and then a decision taken (at a later stage) regarding the bigger (commercial scale) project?
14	The LTC indicated that they will await the EIA documents for their review and then look at proposed mitigation measures.

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

**MINUTES OF MEETING
Five Roses Aquaculture**

MEETING DETAILS		
DATE	26 May 2020	
TIME:	16:00	
VENUE:	Five Roses Aquaculture	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	G.A Kessler (GK)	Five Roses Aquaculture
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

GK introduced himself and provided a short background of his experience in the aquaculture industry in Lüderitz.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

Five Roses Aquaculture raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 17:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY FIVE ROSES AQUACULTURE (GK)

No.	Questions / Comment / Issue raised by MFMR
1	GK indicated that he used to grow <i>Gracilaria</i> with J. Fleidl (see meeting minutes “Five Roses” – 25 May 2020) and they achieved a biomass of $\pm 1:10$ ratio.
2	GK warned that the ‘biggest enemy’ for the proposed Giant Kelp Harvesting Project would be swell and the very challenging condition in the sea.
2	Is Kelp Blue Namibia a privately owned company?
3	<p>What is the objective of the project, as it does not make sense? There are too many potential challenges for making this project work:</p> <ul style="list-style-type: none"> - The proposed pilot areas are not sheltered. - Drag will be a huge challenge – the conditions (i.e. wind, strong current, swell) will make this project too difficult to implement. The strong current, etc. is very destructive. The wind can blow very strong and the swell can be very big. If something in the structure will break - everything will break. - The engineers must measure the strength of the current (during various seasons) to ensure these forces are taken into consideration during the design of the infrastructure. - Also, to design and implement effective anchorage for such a significant structure in these conditions will be a big challenge.
4	What will be the final product being produced from the proposed project?
5	<i>Algaemates</i> species requires proper sunlight to grow. This Giant Kelp will grow too deep.
6	The big challenge in terms of the feasibility of the project would be to keep the costs of the material low but still ensuring it is strong enough to withstand nature (as described above).
7	GK indicated that he does not agree with slide 8, in terms of the “repeat harvestability”. The local Kelp species, specifically <i>Laminaria Pallida</i> , grow back rather quickly and will also be able to be repeatedly harvested.
8	Will the Ministry of Fisheries and Marine Resources give permission for cultivation / farming of an alien species of Kelp in the Namibia waters?
9	Keep in mind that in shallower waters, where some of the proposed pilot structure will be implemented, the currents are very strong.
10	<p>GK indicated that the used empty 2 litre soda bottles for the floats when they were growing <i>Gracilaria</i>. The challenge is be that the floats break loose and drift away. This becomes is risk to the environment and other vessels.</p> <p>GK also mentioned that they used ropes for the anchorage made of polypropylene.</p>
11	It will be important to install radar / GPS detection on the structure to be able to track it, should it break loose.
12	Keep in mind that during the winter season, strong north-westerly winds causes the currents (maybe closer to surface) to move southwards.

APPENDIX 2: ATTENDANCE REGISTER

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

MINUTES OF MEETING

Hangana Abalone

MEETING DETAILS		
DATE	27 May 2020	
TIME:	15:00	
VENUE:	Hangana Abalone	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	The objectives of the meeting was to: <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	A. Nantinda (AN)	Hangana Abalone
	M. Sanzila (MS)	Marvin Consultants
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

Hangana Abolone raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 16:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY HANGANA ABALONE

No.	Questions / Comment / Issue raised by AN
1	AN indicated that the strong winds in Lüderitz and the visibility in the water will make it difficult to harvest the kelp.
2	AN expressed her concern regarding the possibility that the proposed Giant Kelp (being alien species) might break loose or moves to the local kelp forests and impact these. How will it co-exist?
3	The same Kelp specie is planned to be collected from various locations internationally. Can the DNA differ? If these different sporophylls (with possibly different DNA) gets hatched together in a laboratory in Lüderitz and then allowed to grow in our waters, is there not a possibly of “cross breeding” and creating new species? Kelp Blue Namibia should therefore consider to first bring in a specie with similar DNA.
4	AN expressed her concerns that the proposed grow out area is very close the abalone farming areas and that poaching of abalone could become an issue.
5	The abalone feeds from the Kelp. There are also local kelp forests near the abalone and AK expressed her concern regarding the impacts of the alien kelp specie on the local kelp forests and the impacts on the abalone.
6	Kelp Blue Namibia needs to be mindful of rocky areas where the pilot arrays are planned. These can easily damage boats used for the construction and harvesting activities, etc.
7	AN shared a (NamPort) map of the port of Lüderitz providing information on the “Allocated Farms”. It appears that the proposed Grow out area overlaps with farm 19 on the map.

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

JL Marine Merchants Lüderitz

MEETING DETAILS		
DATE	26 May 2020	
TIME:	12:30	
VENUE:	JL Marine Merchants Lüderitz	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	J.G. Strauss (JS)	JL Marine Merchants
	M. Sanzila (MS)	Marvin Consultants
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

JS introduced himself and his company and provided his experiences relating to his business, i.e. collecting (local) kelp that id washed to the shore, drying/milling and selling.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

JL Marine Merchants raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 13:30.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY JL MARINE MERCHANTS

No.	Questions / Comment / Issue raised by JL Marine Merchants
1	<p>JS shared some of his own experiences regarding the local “Kelp market”, amongst others:</p> <ul style="list-style-type: none"> - Cost of export is much higher from Lüderitz, when compared to Cape Town. - You can experience lengthy delays for export of the product during strong wind periods due to other big vessels (e.g. manages ore, etc.) blocking the entry for the other vessels. - Container ships arrive twice a month from Walvis Bay, which could also cause delays in transport of product.
2	<p>JS indicated that he does not agree with the information contained in slide 8 relating to the “Repeat Harvestability”. From his own experience, the local Kelp species also grows back very quickly and can be re-harvested quite often. JS has dived between Alexander Bay and “Klein See” for 30 years and experience that when you cut the (local) Kelp, it grows back within 6 months. They often had to cut the Kelp at the bottom (seafloor) and it grew back.</p>
3	<p>For fertiliser use, only the leaves need to be cut. This grows back very quickly.</p>
4	<p>JS is planning to conduct studies to grow and harvest local Kelp species and suggest to possibly work with Kelp Blue in future on this topic if possible.</p>
5	<p>The water temperature plays a big role in the growth of Kelp and will also be important for the Giant Kelp growth.</p>
6	<p>An advantages of the proposed project would be that big vessels would not be required to harvest the Kelp, which could cause pollution.</p>
7	<p>Another advantage is that the product is organic.</p>
8	<p>Will the arrays that are planned stretch over the full 1 km². The issue here could be entanglement of mammals, etc.</p>
9	<p>Also, these structure / arrays will be very big and the force of the water could cause it to break off or pieces breaking off and drifting away causing potential impacts elsewhere.</p> <p>The various components of the infrastructure should be easily replicable to ensure effective maintenance.</p>
10	<p>The weight and momentum of the structure, including the full gown kelp will be very big and must be taken into account when designing the anchor. The anchors should be able to hook onto something to avoid the structure from drifting away in the current, wind, etc. the drag of the chain also needs to be designed for.</p>
11	<p>How will the pilot array areas affect the marine traffic? Will vessels be able to travel over these areas?</p>
12	<p>Mammals (i.e. whales) and other big fish species can get entanglement in the proposed structure. How will it get freed in the case of getting entangled? What will the monitoring frequency be? Daily?</p>
18	<p>The sporophyte concentrations / seeded twine brought in from abroad must first be ‘rinsed’ in the lab and the waste water disposed of in-land to reduce the risk of viruses, etc. Maybe salt pans?</p>
19	<p>Keep in mind that “corrosion / rust” is a big challenge and the chains, etc. for the pilot arrays will have to be replaced very often.</p>

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

LMC OCEAN

MEETING DETAILS		
DATE	28 May 2020	
TIME:	8:00	
VENUE:	Lüderitz – Desert Deli	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	Jason Burgess (JB)	LMC Ocean
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

LMC Ocean raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 9:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY JB

No.	Questions / Comment / Issue raised by JB
1	JB indicated that a health certificate would be required prior to importing the sporophylls to ensure it is free of all bacteria and viruses.
2	JB indicated that the proposed pilot sited may overlap with mining areas and other land uses. He in particular mentioned block 18 and 19 but indicated that he was speaking under correction. In this regard, he recommended names of other stakeholders that the team may need to speak to such as Desmond Bester from MFMR and Rassie Erasmus and well as the Ministry of Mines and Energy.
3	JB recommended an alternative location for the Grow-out area, one around Shearwater and another opposite the Nest Hotel that the team may want to consider which he thought does not have any overlap with other land uses.
4	JB suggested that spores from South Africa might be more favourable due to similar conditions (instead of spores being obtained from far places).
5	JB also indicated that the project would require good engineering design that existing good practice is available that the team can assess and learn e.g. from New Zealand and Australia.
6	JB also noted that the pilot project is a novel idea and should offer valuable lessons for future projects.

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Marco Fishing

MEETING DETAILS		
DATE	27 May 2020	
TIME:	Approximately 11:30	
VENUE:	Macro Fishing	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	Petrus Muhepa (PM)	Marco Fishing
	Kalsen Neliwa (KN)	Marco Fishing
	M. Sanzila (MS)	Marvin Consultants
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

Marco Fishing raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at approximately 12:30.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY MARCO FISHING

No.	Questions / Comment / Issue raised by Marco Fishing
1	Is there any government financial implications regarding the import of the Giant Kelp species to Namibia?
2	There is not much interest from the local industry - what is the intention of farming kelp in Namibia?
3	How big is the kelp industry?

APPENDIX 2: ATTENDANCE REGISTER

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ

MINUTES OF MEETING

MINISTRY OF FISHERIES AND MARINE RESOURCES - LÜDERITZ

MEETING DETAILS		
DATE	26 May 2020	
TIME:	09:00	
VENUE:	Ministry of Fisheries and Marine Resources (MFMR), Lüderitz	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	Name:	Organisation:
	K. Grobler (KG)	MFMR
	JP Roux (JPR)	Private (previously with MFMR) Part of EIA Project team
	J. Kemper (JK)	Private (scientist) Part of EIA Project team
	M. Sanzila (MS)	Marvin consultants
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and

- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

MFMR- Lüderitz raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 10:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY MFMR - LÜDERITZ

No.	Questions / Comment / Issue raised by MFMR
1	Is the Kelp found along the South-African (SA) coast?
2	Does it like cold water?
3	The kelp likes turbulent water. Why is it not spreading more in SA? Why has it not reached Namibia water naturally yet?
4	Does it need a great deal of light?
5	With reference to slide 8 – how is the “Biodiversity boost” measured?
6	Why is it stated in slide 8 of the presentation that the local kelp species cannot be harvested repeatedly? This seems to be wrong.
7	The “low / medium / high” for “biomass productivity” and “biomass boost” in slide 8 is also debatable.
8	<p>Due to the fact that the Fertile sporophylls will be collected from various international locations, there is a risk that it might bring in viruses. It therefore needs to be checked that it does not bring in other issues, i.e. viruses. It must be sterilised before it comes in and put into the Namibia waters.</p> <p>An example of issues relating to viruses occurred some time ago with the import of sea cucumbers. UV light etc. did not work with sea cucumber issues. Also, there were issues with the release of the waste water into the municipal sewage system.</p>
9	It appears that grow out area overlaps with the abalone farms. The abalone vessels might also have to go over this area.
10	Entanglement of mammals, etc. with the pilot array infrastructure is a risk that needs to be considered.
11	The mooring blocks could roll over from the currents. During spring tide, the currents are very strong. There are also strong currents at the bottom of the sea (seafloor).
12	Before the final decision of the pilot areas (during implementation), a survey/scan of the bottom features (e.g. seafloor conditions) will be required to ensure the protections of sensitive habitats. Rocky habitats is typically more sensitive from a biodiversity perspective and needs to be avoided. Therefore, from an ecological point of view, a sandy seabed is preferred.
13	If the chains become loose and hang on the seafloor, it could cause a scar and impact the local marine ecology.
14	The Namdeb / mining areas also need to be confirmed in relation to the final pilot area locations.
15	What type of Environmental Monitoring will be required? (for instance the monitoring of the seabed, suspension of light, etc. ?)
16	With reference to slide 18: “Disturbance of benthic habitats and associated communities during installation and anchoring of the arrays” is a key issue, but also after the installation (during the next phase of the project).
17	The potential issues of viruses and parasites and need to be added to the list of potential issues.
18	Is there any info on other cultivation areas in the world to check on the potential impacts associated with the cultivation and harvesting of the giant kelp?
19	Slide 12 in the presentation: the Pilot area B is located in the lobster sanctuary and will have to move to a different location.
20	The Aquaculture Act and Regulations need to be updated to include mariculture.

APPENDIX 2: Attendance Register

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Ministry of Fisheries and Marine Resources (Mariculture)

MEETING DETAILS		
DATE	5 June 2020	
TIME:	09:00	
VENUE:	Cosmopolitan, Swakopmund	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	H. Skrypzeck (HS)	Ministry of Fisheries and Marine Resources (MFMR)
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue’s Project Objectives and Motivation;

- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

SG raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 10:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY HS

No.	Questions / Comment / Issue raised by HS
1	What is the scientific name for the giant kelp species that Kelp Blue Namibia intends to cultivate, grow and harvest?
2	Entanglement of dolphins and other mammals, etc. is an issues that needs to be considered regarding the pilot arrays.
3	Taking the challenging weather (i.e. wind) and sea conditions at Lüderitz into consideration, the accessibility of divers to the pilot areas, during harvesting, etc. will be very challenging.
4	The risk of this alien species being introduced in the Namibia waters needs to be well understood in terms of it invasiveness and possible competition with the local kelp species and other marine life.
5	The “life cycle / life history” of this giant kelp specie needs to be understood to know how it would be able to reproduce and impact the marine ecology and the local kelp species.
6	<p>The potential for viruses/diseases associated with the sporophylls, etc. needs to be determined. These might not affect the giant kelp but it might affect the marine ecology, oysters, etc.</p> <p>There will have to be specific requirements relating to the testing for such viruses and obtained a certificate, etc.</p> <p>There must also be a quarantine period.</p>
7	<p>Refer to the relevant Aquaculture Acts and Regulations.</p> <p>With reference to the Aquaculture (Licensing) Regulations, the following regulation on the “Release and escape of aquaculture products”: “All equipment, materials and structures employed on an aquaculture facility shall be constructed, installed and maintained so as to prevent escapes under any circumstances”.</p>
8	<p>HS also raised the following concern / warning:</p> <p>When NamPort does dredging activities in the port, heavy metals are released. Also, there are spillages of manganese ore, etc. from the port operations. Can the kelp take up these heavy metals and impact its growth or future use as a product?</p> <p>Abalone for instance is not a filter feeder and can get paralytic shellfish poisoning (PSP) – i.e. gets heavy metals in their flesh.</p> <p>Can similar issued be experience with kelp?</p>
9	Why was Lüderitz specifically chosen for the giant kelp cultivation project?

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Ministry of Fisheries and Marine Resources

MEETING DETAILS		
DATE	15 May 2020	
TIME:	09:00	
VENUE:	Ministry of Fisheries and Marine Resources (MFMR), Swakopmund	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	F. Hamukwaya (FH)	MFMR
	L. Shivutu (LS)	MFMR
	A. Kreiner (AK)	MFMR
	V. Libuku (VL)	MFMR
	C. Bartholomae (CB)	MFMR
	V. Kinyaga (VK)	Kelp Blue Namibia
W. Petrick (WP)	Namisun	

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

WP confirmed with MFMR that the original (hard copy) Application for an Environmental Clearance Certificate needs to be submitted to MFMR, being the Competent Authority for the proposed Kelp

Harvesting Pilot Project. MFMR informed WP that the Application Form should however be submitted directly to the Executive Director's office in Windhoek.

WP informed MFMR that the Application was (already) registered onto the Ministry of Environment, Forestry and Tourism's (MEFT) online portal.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

MFMR raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 10:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY MFMR

No.	Questions / Comment / Issue raised by MFMR
1	Could the Scuba Diving support be coupled with tourism during the pilot phase already?
2	<p>The <i>Macrocystis Pyrifera</i> kelp species, which is growing in South Africa is a totally different species of kelp to our native species. It grows much bigger and longer.</p> <p>It could compete with the indigenous kelp species.</p> <p>How will it spread and what will the impact be on the ecosystem and the native kelp species?</p> <p>This is the key potential issue to investigate.</p>
3	Where will Kelp Blue obtain the 'seeds'.
4	<p>Will the introduction of alien kelp species into Namibian water even be allowed? Is there perhaps legislation that restricts this?</p> <p>MEFT should be consulted in this regard.</p>
5	Did Kelp Blue consider growing local kelp species rather than importing Giant Kelp sporophylls, etc. ?
6	The German Radio Station broadcasted an extract from the newspaper advert.

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Namport

MEETING DETAILS		
DATE	3 June 2020	
TIME:	11:00	
VENUE:	Cosmopolitan, Swakopmund	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	S. Gariseb (SG)	Namport
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue’s Project Objectives and Motivation;

- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

SG raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 10:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY NAMPORT (SG)

No.	Questions / Comment / Issue raised by SG
1	Why does the local kelp species not grow as dense and fast as the giant kelp? Does it relate to their genetics?
2	<p>WP presented the “Port of Lüderitz” map to SG, which he received, while being in Lüderitz during the week of 26 May 2020. This map provides information relating to the allocation of farms for, amongst others, mariculture activities.</p> <p>SG indicated that this map was an older version and that he would share the latest revision of the map with WP.</p> <p>SG also indicated that he will share the map indicating the movement of vessels in and out of the port and entering the port area with WP.</p>
3	By importing an alien Kelp Species and growing it in the Namibia waters, is there a risk that this species will take over our local (natural) kelp species?
4	Movement of vessels in & out of the port to be considered.

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Seaflower Whitefish and Novanam

MEETING DETAILS		
DATE	28 May 2020	
TIME:	11:00	
VENUE:	SeaFlower White Fishing	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	<p>The objectives of the meeting was to:</p> <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	Konfja Amutenya (KA)	SeaFlower Whitefish
	Georgia Garises (GG)	SeaFlower Whitefish
	Morne Lambert (ML)	SeaFlower Whitefish
	Ricardo Romero (RR)	Novanam
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue's Project Objectives and Motivation;
- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

Sea flower White Fish raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 12:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY SEAFLOWER AND NOVANAM

No.	Questions / Comment / Issue raised by MFMR
1	Being an alien species, will it not impact the local species and the marine environment negatively? Also, in terms of “eutrophication”, will this new species not take over our local species?
2	If this project can be implemented successfully and the potential impacts avoided or managed, it seems like a “project of the future”.
3	It will be very important to take the strong currents into consideration when designing the infrastructure for the pilot arrays.
4	Why is this Giant Kelp species growing so fast? It properly takes up a lot of nutrients from the surroundings. Will this not impact other Kelp species or marine ecology in the area that is also depended on these nutrients?

APPENDIX 2: ATTENDANCE REGISTER

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ**

MINUTES OF MEETING

Seagulls

MEETING DETAILS		
DATE	28 May 2020	
TIME:	13:00	
VENUE:	Nest Hotel	
PROJECT:	Environmental Impact Assessment (EIA) for Kelp Blue Namibia – Proposed Kelp Cultivation Pilot Project Near Lüderitz	
PURPOSE:	The objectives of the meeting was to: <ul style="list-style-type: none"> • Provide a description of the proposed “Kelp Blue Pilot Project” activities. • Provide a description of the EIA process. • Provide MFMR with initial opportunity to be involved in the EIA. • Identify any potential environmental issues and impacts • Describe the way forward, highlighting further opportunities to be involved in the EIA process. 	
ATTENDANCE: (refer to Attendance Register in Appendix 2)	<u>Name:</u>	<u>Organisation:</u>
	R. Erasmus (RR)	Seagulls
	V. Kinyaga (VK)	Kelp Blue Namibia
	W. Petrick (WP)	Namisun

1. OPENING OF THE MEETING AND GENERAL INTRODUCTION

WP from Namisun Environmental Projects and Development introduced himself as the independent environmental practitioner, conducting the EIA process, and welcomed all to the meeting. VK introduced herself and provided a short background of Kelp Blue Namibia.

This was followed by a short introduction by WP, which included:

- The meeting procedure and objectives of the meeting; and
- General introduction to the project and brief explanation of the EIA process being followed, the EIA Team, etc.

2. PRESENTATION

WP provided an overview of the proposed Kelp Blue Pilot Project and EIA Process, by means of a PowerPoint presentation. The presentation included the following aspects:

- Kelp Blue’s Project Objectives and Motivation;

- Pilot Project Description;
- EIA Process; and
- Key potential environmental and social issues.

3. DISCUSSION (QUESTIONS AND ANSWERS)

Sea flower White Fish raised a number of questions / comments / issues during the meeting. These have been recorded in the attached table (refer to Appendix 1). These issues will be addressed as part of the EIA process and responses provided in the Issues and Response Report, where relevant, attached to the EIA Scoping Report.

4. THE WAY FORWARD

WP outlined the way forward as follows:

- Comments received to date and during this meeting will be included in the EIA Scoping & Assessment Report.
- The Draft EIA Scoping & Assessment Report will be distributed for comment towards beginning of July 2020.

5. CLOSE

The meeting closed at 14:00.

APPENDIX 1: QUESTIONS / COMMENTS / CONCERNS RAISED BY SEAGULLS (RR)

No.	Questions / Comment / Issue raised by RR
1	RR indicated that he is busy with studies for growing and harvesting <i>Laminaria Pallida</i> .
2	RR indicated that the more you cut Laminaria, the better it grows – it also become thicker. The important thing is to cut it correctly (only the ‘fingers’ should be cut).
3	<p>The local (natural) kelp provides shelter for crayfish, etc. however, one should harvest the fingers only and not entire stem (near the sea floor), which would cause impacts to crayfish.</p> <p>It is however, noted, the proposed giant kelp pilot project will implement the structures allowing the kelp to grow from the top downwards. The above mentioned is therefore not applicable. The proposed giant kelp project will actually, to a certain extent, provide shelter and not remove it.</p>
4	<p>RR indicated that the sporophyte concentrations and seeded twine that will be imported, first need to be placed in quarantine (at a dedicated “quarantine station).</p> <p>Viruses could be brought in with the sporophyte.</p>
5	<p>The grow out area near Seal Island will be problematic – there are other farms (i.e. abalone, etc. nearby).</p> <p>Also, you will struggle to get the 8 m water depth there. Tiger Reef is deeper.</p>
6	Sand migrates significantly during the year, especially in the bay area. This could cause challenges regarding the anchorage of the pilot structures.
7	The proposed pilot area B is in a sensitive location in terms of crayfish, wales, etc. It would be better to place this closer to Lüderitz.
8	Suitable vessels, strong enough to be used under the very challenging conditions (swell, etc.), will be required for implementing the pilot infrastructure and later on harvesting, etc.
10	RR indicated that this would be a very good project and the bigger (commercial scale) project could provide a lot of job opportunities. It will be a big positive to Lüderitz.

APPENDIX 2: ATTENDANCE REGISTER

Project: KERP BLUE NAMIBIA'S PROPOSED KERP CULTIVATION PILOT
 PROJECT NEAR LÜDERITZ – EIA PROCESS
 Venue: Nest Hotel 16:00
 Date: 25 May 2020



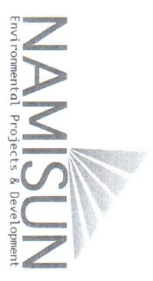
Meeting: Information Sharing Meeting

Name and Surname	Organisation	Contact numbers	E-mail	Signature
W. Retnick	Namisun	081405968	wretnick@namisun.com	
S. Friedl	Fisc Rossee Aquaculture BREM OSTER GARDFELC	0811280217	sfriedl@iway.na	
N. KLOSTA		0811283667	ngk@iway.na	
V. Kingaga	Kerp Blue	0855850649	viviane.kingaga@gmail.com	

Venue: **Lüderitz Town Council Office**

Date: **27 May 2020**

Meeting: Information Sharing Meeting



Name	Organisation	Postal address	Tel / Cell No.	E-mail	Signature
W. Retzke	\$ SZR	P.O. Box 8127 Swakopmund	0811405968	wretzke@namisun.com	
T. N. Tjipuna	LTC	P.O. Box 648 Lüderitz	0811601115	tjipuna@gmail.com	
L. Yangundile	LTC	P.O. BOX 19 Lüderitz	0818390810	lhealth.Feedback.com.na	
E. Da Fonseca	LTC	Box 863 Lüderitz	0813576681	dafonseca.edge@gmail.com	
R. Beukes	LTC	P.O. Box 1172 Lüderitz	0816031582	chastee@lhc.com.na	
Nazima Khan	LTC	P.O. Box 19 Lüderitz	0813740826	NKhan@cutlak.com	
M. SAMUEL	MARVIN	Box 207, Swakopmund P.O. Box 1000	0814782219	MARVINCONSULTANTS@cutlak.com	
O. Shipenga	LTC	Lüderitz P.O. BOX 19	0811601113	o@lhc.com.na	
Reinhardt Olb	ATC	Lüderitz	0811656330	re@lhc.com.na	
V. Kingang	Kelp Blue		0855850669	viviane.kingang@gmail.com	

Project: KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ - EIA PROCESS

Venue: Nbst Hotel

Date: 26 May 2020

Meeting: Information Sharing Meeting



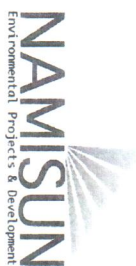
Name and Surname	Organisation	Contact numbers	E-mail	Signature
W Petrich	Namisun	081146548	wpetrich@namisun.com	
S.A. Kessler	EcoSystems	0811272819	gerd.kessler@ecosystems.com	
V Kingaga	Kelp Blue	0855850669	vuvane.kingaga@kelpblue.com	

Project:
KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT
PROJECT NEAR LÜDERITZ - EIA PROCESS

Venue: Marokopa Apartment

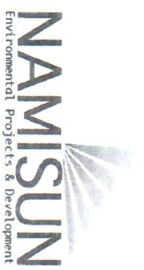
Date: 27 May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
Anne Kantinder	Harrington Abertone	0812714622 063-203392	anne.kantinder@abertone.com	
M. Smitzka	MARVINI	0814 788 279	MARVINI CONSULTANTS@GMAIL.COM	
W. Retzick	Namisun	0811405968	wretzick@namisun.com	
V. Kingya	Kelp Bkr	0855850669	viviane.kingya@gmail.com	

Project:
 Kelp Blue Namibia's Proposed Kelp Cultivation Pilot
 PROJECT NEAR LÜDERITZ - EIA PROCESS



Venue: SE MARINE MERCHANTS LÜDERITZ

Date: 26 May 2020

Meeting: Information Sharing Meeting

Name and Surname	Organisation	Contact numbers	E-mail	Signature
Johan Geert Sieruss	TL Marine Merchants	Office 663 202012 081 718 6926	jmarine.merchants@ gmail.com.	
Werner Petrick	Namisun	081 1405 968	WPetrick@namisun. com	
V Kinyoga	Kelp Blue	085585 6669	v.kinyoga@gmail.com	
M. Sumula	MAREIN	06147782721	MAREIN/SHARITZ@OUTLOOK.COM	

Project: KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ – EIA PROCESS

Venue: Desert Deli

Date: 28 May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
Jason Burgess	LWC oceanicum	081 203 4458	lweinyana	
V. Kingaga	Kelp Blue	0855850669	viviane.kingaga@genetic.com	
W. Petrich	Namisun	0811405968	wpetrich@namisun.com	

Project: KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ - EIA PROCESS

Venue: Marco Fisheries

Date: May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
Petrus Nhepera	Marco Fishing	0814361313	hr@marcofishing.com.na	
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MARVIN SANAICA	MARVIN	681478279	marvin@marcofishing.com.na	
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Project:
 KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT
 PROJECT NEAR LÜDERITZ – EIA PROCESS

Venue: NEMR - Lüderitz

Date: 26 May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
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Project: KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ - EIA PROCESS

Venue: MEMR 15 ~~May~~ June 2020

Date: 15 June May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
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Project:
 KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT
 PROJECT NEAR LÜDERITZ – EIA PROCESS

Venue: MFMR Swakopmund Office

Date: 15 May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
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Project:
 KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT
 PROJECT NEAR LÜDERITZ – EIA PROCESS

Venue: Cosmo Litan, Swakopmund

Date: 3 June 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
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Project: **KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT PROJECT NEAR LÜDERITZ - EIA PROCESS**

Venue: 28th Nest Hotel

Date: 28 May 2020

Meeting: Information Sharing Meeting



Name and Surname	Organisation	Contact numbers	E-mail	Signature
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Project:
 KELP BLUE NAMIBIA'S PROPOSED KELP CULTIVATION PILOT
 PROJECT NEAR LÜDERITZ – EIA PROCESS

Venue: Nest Hotel

Date: 28 May 2020

Meeting: Information Sharing Meeting



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