EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

PUBLIC CONSULTATIONS: I & AP

Appendix 1a: The Namibian dated 18th December 2020, to announce the public meeting scheduled for Walvis Bay and Swakopmund on the 12th and 13th January 2021.



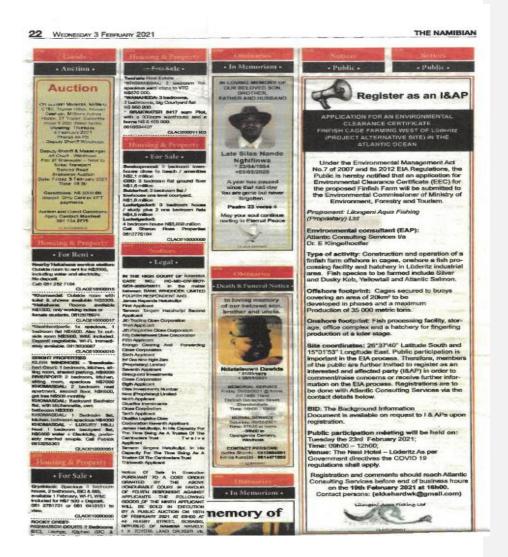
EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 1b: The Namib Times dated 18th December 2020, to announce the public meeting scheduled for Walvis Bay and Swakopmund on the 12th and 13th January 2021.



EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 1c: The Namibian dated 3rd February 2021, to announce the public meeting scheduled for Lüderitz on 23rd February 2021.



EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 1d: The Republikein, SUN and Allgemeine Zeitung, dated 29th January 2021, announce public meeting scheduled for Lüderitz on 23rd February 2021.



EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 2a: Participant list of the public that attended the coastal public meeting at Walvis Bay on the 12th January 2021.

	Lik	ongeni Aqua Fishing (Propri nmental Impact Assessment)	Public Meeting		
Date: 13	th January 2021	Attendance Register Time: 09h00-12h00		a Hotel-Logoon	, Walvis Bay
No. Name & Sum	name Company/Organ	nization Position	Contact No.	Email address:	Signature
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EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 2b: Participant list of the public that attended the coastal public meeting at Swakopmund on the 13th January 2021.

		Lilongeni	i Aqua Fishing (Prop	rietary) Ltd			
		Environmenta	al Impact Assessmen	Public Meeting			
to			Attendance Registe	r			
tr	Date: 14th Janu	ary 2021	Time: 09h00-12h00	Venue: Nat	MIRC (MFMR), S	wakopmund	
No.	Name & Surname	Company/Organization	Position	Contact No.	Email address:	Signature	1
1	Housbay	Liborgeni	Drul.	ar) 303 445		Signature	
2	Fishlie Bolis	Ethon.	Owner/Monogar		for botes again	1	R
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5	Ann Scott	[Conservation Services	Member	N 0015842100	ecoserve@	Ascott	
6	S. Garises	NAMPORT	SHOW Manager	०शास्त्रयक्त	3-gariseb &	Micon	
7	Stoken Hunty	MAME	Fitheres phys		0	1413	7
8	Sasky Kisgner	MANE	FET		howethy esterna	(1)	W
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EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

	Date: 14 th Janua	ry 2021	Attendance Register Time: 09h00-12h00		MIRC (MFMR), Sv	vakopmund
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Date: 14th January 2021 Time: 09h00-12h00 Venue: NatMIRC (MFMR), Swakopmund No. Name & Surname Company/Organization Position Contact No. Email address: Signature CB1 b352093 curic 32 Again. Car (MC) The Kar Lines The Kar The K				al Impact Assessment Attendance Registe			
No. Name & Surname Company/Organization Position Contact No. Email address: Signature 1 Browner Clark Actived MAME CB1 & 352093 Curie 32 Agras Can Magazine 2 Town Line MEMR Extract Memory Contact No. Email address: Signature 2 Town Line MEMR Extract Memory Carlot 4 Tobios Endjoins MEMR Biologist Octubes 477 Tobios Endjoins Contact No. 5 Tobios Endjoins MEMR Biologist Octubes 477 Tobios Endjoins Contact No. Email address: Signature 2 Town Line MAME CB1 & State Carlot Carlot 3 Town Line MEMR Contact No. Email address: Signature 2 Town Line MAME CB1 & State Carlot Carlot 3 Town Line MAME CB1 & State Carlot 4 Tobios Endjoins MEMR Diologist Octubes 477 4 Tobios Endjoins Town Line Carlot 5 Town Line Contact No. Email address: Signature 2 Town Line Carlot Carlot Carlot 5 Town Line Contact No. Email address: Signature 6 CB1 & State Carlot Carlot 7 Town Line Carlot Carlot 8 Town Line Carlot Carlot 9 Town Line Carlot Carlot 9 Town Line Carlot Carlot 10 Town Line Carlot Carlot 11 Carlot Carlot Carlot 12 Town Line Carlot Carlot 13 Town Line Carlot Carlot 14 Town Line Carlot Carlot 15 Town Line Carlot Carlot 16 Town Line Carlot 17 Town Line Carlot Carlot 18 Town Line Carlot 19 Town Line Carlot Carlot 10 Town Line Carlot 10 Town Line Carlot Carlot 11 Town Line Carlot Carlot 12 Town Line Carlot Carlot 13 Town Line Carlot Carlot 14 Town Line Carlot Carlot 15 Town Line Carlot Carlot 16 Town Line Carlot Carlot 17 Town Line Carlot Carlot 18 Town Line Carlot Carlot 19 Town Line Carlot Carlot 10 Town Line Carlot		Date: 14th Janua	rv 2021			Affic Affirm a	
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EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 2c: Participant list of the public that attended the coastal public meeting at Lüderitz on the 23rd February 2021.

Lilongeni Aqua Fishfarming (Proprietary) Ltd

Environmental Impact Assessment Public Meeting

Attendance Register

Date: 23rd February 2021

Time: 09h00-12h00

Venue: The Nest Hotel,, Luderitz

No.	Name & Surname	Company/Organization	Position	Contact No.	Email address:	Signature
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EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Lilongeni Aqua Fishfarming (Proprietary) Ltd

Environmental Impact Assessment Public Meeting

Attendance Register

	Date: 23 rd Fel	oruary 2021	Time: 09h00-12h00	Venue: Th	e Nest Hotel,, L	uderitz
22	AMADHILA A.N	MFMR	RESERCH TECH		abunquallifo fiqui	
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Appendix 3a: Stakeholder scoping summary: major points raised at the public meeting on 12 January 2021 in Walvis Bay.

Organization	Question / Comment	Response
Zeist Invest	Mr Henning du Plessis: emphasised that this is a project of high magnitude thus the proponent should start small by doing a pilot study at least for the first three (3) years.	The advice and caution of Mr HduP was duly noted and will be taken into consideration.
Namibia Mariculture Association	Mr Koos Blaauw: it is reported that the Norwegian Salmon has a skin disease; what is the probability of salmon infecting other fish and shellfish at the proposed	The regulations for the import and export states that all live animals imported into the country should be disease free (strict protocols are in place to avoid this).
	sites?	The smolt will be quarantined for observation before released into the Namibian environment.
		The cold waters and pulsating current is not a conducive environment for bacteria to
MFMR	Mr Ivory Uriab: advised the Environmental Assessment Practitioner (EAP) to engage with the Minister and the Executive Director (ED) of MFMR from an early stage.	The EAP responded that this was ongoing and the ED and Deputy Minister are being kept abreast of progress made regards to the EIA.
	Commented that both MFMR inspectors and NSI officials will be present during time of harvesting.	The EAP confirmed that their presence will be a necessity to

		ensure that all procedures are followed which will enable the company to export fish products of highest quality.
Proponent	Mr Ranga Haikali: SGS is the world's leading inspection, verification, testing and certification company – should Namibia not affiliate to this company?	NSI officials advised that using their services will cut cost as compared to using SGS. There was no need to engage with SGS as the NSI is the registered competent authority that will deal with all export of fish products.
	Does the Ministry of Agriculture, Water and Land Reform (MAWLR) approve any imported feed and seedlings?	Any fish feed imported into the country has to be approved and registered by the Ministry of Agriculture (MAWLR); the import of fry/smolt/fingerlings will need to be placed into quarantine for at least 1 month and tested for potential pathogens by MAWLR of the Directorate of Veterinary Services.

Table 3b: Stakeholder scoping summary: major points raised at the public meeting on 13 January 2021 in Swakopmund (NatMIRC).

Organization	Question / Comment	Response
MFMR	Dr Anja Kreiner: if site B is to be chosen which will be at 45 nm offshore at a 200m sea depth the proponent will need to take into consideration the impacts this operation will have on the oceanographic parameters (chemical and biological) on the long-term monitoring line on 23 degree Latitude. Will the mega	The points raised by Dr Kreiner on the potential impacts that the operation will have on the 23 degree monitoring line were recognized by the EAP and noted.

Denguelo Ski	cage culture change environmental parameters in this region and if so to what extent? Will the proponent be able to ID the possible effects that the cage culture will have on the environment?	the pollution conect a g
Benguela Ski Boat Fishing Association	Mr Tony Raw: is there any pollution contingency plan that will guide against the pollution of waters and what will the possible impacts on the project be?	the pollution aspect e.g. eutrophication will be addressed in the EIA report
MFMR	Dr Beau Tjizoo: What is the source of feed for the proposed fish species?	The source will be from Hermanus Feeding Company (South Africa); they specialize in tailor made feed for each particular fish species and age. Once the Ministry of Agriculture has approved the feed it will be listed on their register.
Mr Victor Libuku	On the issue of medication, how will the medication be monitored and will a baseline be established beforehand regarding the impact of vaccines and chemicals that will be used by the project? How will it affect the other fish in the natural ecosystem?	After 2 to 3 years the mariculture farmers relocate their cages to a new location. Our ocean is very dynamic thus the waste will drift off with the currents and will not remain in one position.
	Mr. Libuku's concern is that the proponents need to consider the	Baseline studies will be done over a period of two years by PhD students to determine waste effects,

	waste impact on the environment from feeding the fishes. The proponent should also be able to calculate how 40,000MT of feed will affect the bottom dwellers.	however, literature states that approved fish feed that ends up as waste gets dispersed and taken up by the system.
MFMR	Mr Ferdinand Hamukwaya: What procedures will be used when vaccinating the fish?	The vaccines will be administered via the water or through the feed. With the advancement of technology, a computerized system will be used to administer the vaccine
African Conservation Services	Mr and Mrs Scott: How will the cages deter birds from getting entangled in the nets? They advised that, if not already approached, to consider including the Albatross Task Force for their inputs.	The inputs have been noted down and for appropriate action to be taken the proponent should contact the Albatross Task Force. The cages to be installed have bird and marine mammal repellents in place.

Appendix 3c: Stakeholder scoping summary: major points raised at the public meeting in Lüderitz on 23rd February 2021.

Organi- zation	Question /Comment	Response
ACHA	Mr Sackias Shimuandi: salmon species prefer to breed in freshwater, if they escape into the freshwater bodies e.g. the Orange River what measures have been put in place for escapees?	The cages have an inner net which is protected by a strong wire mesh which has a durability life span of 14 years. Worst case scenario should escapees take place these fish will be taken by the strong current offshore in a north westerly direction 100's km north of the Orange river.
MFMR	Dr Jessica Kemper: considering that six (6) km from Diaz Point there is a high risk in bird populations and migratory roots for the dolphins, seals colonies are also found on the nearby islands	Dr Kemper's concerns have been noted down and they will be addressed.
	Her main concern is that Easter Bay is close to Halifax and Mercury Islands, the two islands are home to a variety of endangered bird colonies. Putting up a finfish farm will attract the birds to the fish cages as this is close to the birds feeding grounds and this becomes a danger zone to the birds as they might get entangled into the cage nets.	
MFMR	Dr Kollett Grobler: 1.Halifax Island has high numbers of penguins.	Dr Grobler's concerns have been noted down and will be taken into considerations.
	2.Not in support of the proponents wanting to bring in salmon as one of the proposed species.	The comment on mitigations have been duly noted and the EAP will

	3.The vaccines and the growth hormones that are used all end up into the marine environment.	write them down clearly in the final report.
	4.Fish pathogens and diseases cannot be contained in a fish tank/cages.	
	5.The proposed area is very rich in jellyfish and they end up causing harm to the salmon species.	
	6. Five (5) km east of the proposed site is a major feeding and breeding area for the bird colonies.	
	7.The EAP in his presentation has outlined the mitigations but has not stated how these mitigations will be resolved.	
MFMR	Ms Diina Mwaale: Some of the chemicals that will be used are dangerous to shellfish that are dwelling at the bottom of the ocean.	The proponents want to farm organically, the fish feed is the only thing that will go into the ocean.
		There are procedures that will be taken into consideration with regards to the feed that will be used.
		3. The proponents will only use fish feed which has been approved by the Namibia Standard Institute (NSI) that they do not cause harm to other aquatic organisms. Thus no harm will be brought upon the shellfish or any other organisms that live at the bottom of the ocean.
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		 Faeces accumulation in the ocean will be broken down into small nano-particles, therefore they will not have any effect on the shellfish species either.
		Namibia is known to produce natural organic products. The fish will be naturally grown; through the health food programme no growth hormones will be allowed into Namibia.
MFMR	Ms Diina Mwaale: What will happen when the fingerlings contract diseases while they are put in cages?	Fingerlings will be kept onshore in the quarantine facility until they are big enough to be moved to the cages offshore. During the fingerling stages ongoing monitoring will be conducted to make sure that the fingerlings have no pathogens or diseases by MAWLR Directorate of Veterinary Services.

EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Appendix 4a: THREE PUBLIC MEETINGS HELD AT WALVIS BAY, SWAKOPMUND AND LÜDERITZ DURING THE MONTHS OF JANUARY AND FEBRUARY 2021

ANNEX 9a: Minutes of Public Meeting held at Protea Hotel-Pelican Bay, Walvis Bay, on the Tuesday 13th January 2021.

VENUE: Protea Pelican Bay Hotel, Walvis Bay

<u>DATE:</u> 13th January 2021 <u>TIME:</u> 09h00 to 11h15

Public Consultative Meeting for Interested and Affected Parties (I & AP): EIA on Finfish Farming in the Atlantic Ocean

Meeting Facilitator: Frikkie Botes (Chairperson)

I. Welcome and Announcements

FB welcomes participants to the meeting and announces

- Attendance register & registration
- COVID-19 measures wear your mask; keep social distancing; wash your hands,
- Cell-phones on silent please
- Toilet facilities direction
- · Refreshments at the back of venue

II. Apologies

Received from: Ivo de Gouveia, Stanley Ndara, Steven Ambabi, Mr. Kakore, Clive Kambongarere; NAMPORT, Katrina Hilunda (BCC – FAO Project)

III. Introduction of participants

Frikkie Botes; Ivory Uirab; NAMPORT - ; NSI – Bonetti & Ivy (2x); Volker Paulsmeier (Brandbox GmbH) – Fishing Industry; Henning du Plessis; Koos Blaauw (Chairperson of NMA); Thomas Mausberg & Ranga Haikali (Lilongi Aqua Fishing); Ekkehard Klingelhoeffer; Maria Shimhanda & Ndamona (ACS);

IV. Purpose of the meeting

FB announces that this meeting was announced in the newspapers on 18 December 2020 to indicate that Public Information Meetings are scheduled for 13 & 14 January 2021. The proponent is Lilongeni Fisg-Farming (PTY) Ltd who plans

EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

to embark on a mariculture finfish farming project along the Namibian coast and they have appointed Atlantic Consulting Services as the Environmental Assessment Practitioner. According to the due EIA processes the I&APS must be informed via a public meeting and Dr. Ekkehard Klingelhoeffer (mention his background – Biologist @ MFMR, Director of Aquaculture, Lecturer at UNAM) will introduce his team and the Proponent.

V. Introduction of the EAP Team

EK to introduce the Atlantic Consulting Services team

EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

Lilongeni Fish-Farming (Pty) Ltd Minutes of the Public Meeting of Environmental Impact Assessment (EIA) for Lilongeni Fish-Farming (Pty) Ltd held on 13th of January 2021 at Protea Hotel - Lagoon, Walvis Bay between 09:00 to 11:30

> Lílongení Físh-Farming (Pty) Ltd Co. Reg. No. 2015/0190

TITLE	PRESENT	DESIGNATION and POSITION
Mr	Frikkie Botes	Facilitator - Chairperson
Dr	Ekkehard Klingelhoeffer	Atlantic Consulting Services - EAP
Ms	Maria Shimhanda	Atlantic Consulting Services - Expert
Ms	Ndamononghenda Kauluma	Atlantic Consulting Services - Expert
Mr	Thomas Mausberg	Lilongeni Aqua Fishing Ltd - Shareholder
Mr	Ranga Haikali	Lilongeni Aqua Fishing Ltd - Shareholder
Mr	Volker Paulsmeier	Brandbox GmbH - Managing Director
Ms	Taleninawa-Bonnettie Hatutale	Namibia Standard Institute - Quality Assurance Officer
Ms	Ivy Mutanimy	Namibia Standard Institute - Quality Assurance Officer
Mr	Henning du Plessis	Zeist Invest - Owner
Mr	Koos Blaauw	Mariculture Association - Chairman
Mr	Ivory Uirab	Ministry of Fisheries and Marine Resources - Chief Fisheries Inspector
TITLE	APPOLOGIES	DESIGNATION and POSITION
Dr	Andrea Klingelhoeffer	Atlantic Consulting Services -Expert
Dr	Marion Klingelhoeffer	Atlantic Consulting Services - Member
Mr	Ivo de Gouveia	Beira Investment - Director
Mr	Stanley Ndara	Fishery Observer Agency - CEO
Mr	Stefanus Gariseb	Namport – Manager SHREQ (to be present at Swakopmund Meeting)
Mr	Aweh Kakora	Chairperson of the Large Pelagic Association
Mr	Steven Ambabi	Deputy Director – Surveillance (MFMR)
Mr	Clive Kambongarera	Staff – Demersal hake Association
Mr	Katrina Hilundwa	Deputy Director – Surveillance (MFMR)

VI. Introduction of the Proponent Lilongeni Fish-Farming (PTY) Ltd

EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

EK to introduce the proponent

- **VII.** Presentation on the envisaged project (see EK's PowerPoint presentation) EK to give his presentation.
- VIII. Open session: Questions and Answers (FB facilitates this session)
 EK All questions and Concerns will be noted, and proper feedback will be provided if it cannot be addressed during the meeting.

Annex 9a: Minutes of Public Meeting held at Protea Hotel-Lagoon, Walvis Bay on the Tuesday 13th January 2021.

Full attendance register with signatures attached (Appendix 7). Invitation letters were sent via email to the Chairpersons of the Fishing Associations and the Namibia Standards Institute (NSI) that are based in Walvis Bay:

- Demersal Hake Association (Mr Ron Walters)
- Midwater Trawl Association (Mr Carlson)
- Demersal Monk and Sole Association (Mr Peya Hitula)
- Large Pelagic Association (Mr Kakora)
- NRSAA Line-fish Sector (Mr Simon Anderson)
- NSI (Mrs Paloma Ellitson)

By word of mouth and hand delivered letters were issued to:

- MFMR the Inspectorate
- NMA mariculture Association

THE MEETING RESOLVED AND AGREED ON THE FOLLOWING ASPECTS:

NO	ORIGINATOR	AGENDA	MINUTES of the MEETING	
1.0	FB	Welcome	1.1 The chairperson welcomed everyone present and called the meeting to order.	

			12Th M-4:	
			1.2 The Meeting commenced at 09:00 through faceto-face interaction.	
			1.3 The COVID 19 directives were to be adhered to.	
2.0	EK	Amalanian		
2.0	EK	Apologies	2.1 The Chairperson gave apologies for the public	
			participants (Stakeholders) and the EAP team	
			members who could not be present for today's	
2.0			meeting	
3.0	EK	Remarks	3.1 The EAP introduced his Team and welcomed all	
		from EAP	stakeholders present.	
			3.2 The meeting this morning was to deliberate on	
			the EIA for Lilongeni Aqua Fishing Ltd (Proponent).	
			3.3 Lilongeni took a bold decision to develop the	
			first finfish mariculture farming the Atlantic Ocean	
			of Namibia.	
			3.4 The proposed fish species to be farmed with are:	
			Argyrosomus inodorus (Silver kob), A. coronus	
			(Dusky cob), Seriola lalandi (Yellowtail Kingfish)	
			and Salmo salar (Salmon).	
			3.5 Interested and affected parties have been notified	
			about the EIA for Lilongeni Fish Farming (Pty) Ltd	
			via the newspaper adverts placed into The Namibian	
			Newspaper and the Namib Times on the 18 th of	
			December 2020.	
			3.6 The Proponent needs to get inputs, comments	
4.0	EIZ	D 4 4	and views of the public (external stakeholders).	
4.0	EK	Presentation	4.1 Introduction: Brief Overview	
			i) The purpose of this event was to get input from	
			the public participants (stakeholders), to ensure	
			transparency on the intentions of Lilongeni Fish	
			Farming (Pty) Ltd. in order to avoid conflicts. ii) Thus, the EIA processes addresses all the relevant	
			issues required by the Proponent (Lilongeni Fish	
			Farming (Pty) Ltd) which needs to meet all the	
			necessary requirements (as per Act and Regulations	
			of MEFT + MFMR), before they are issued an	
			Environmental Clearance Certificate.	
			iii) The meeting to deliberate on the EIA for the	
			proposed finfish cage farming operation west of	
			Walvis Bay proposed by Lilongeni Fish Farming	
			(Pty) Ltd	
			4.2 The screening process was already carried out	
			and the documents have been submitted to the	
			Environmental Commissioner (EC) in the Ministry	
			of Environment, Forestry and Tourism (MEFT).	
			4.3 The global "Capture Fishery" is showing a	
1				
			decreasing trend over the past 3 decades and	

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Aquaculture in contrast is showing an exponential increase in both fresh water and marine species. The world demand for fish is ever on the increase. i) In the SADC region, South Africa is the only country which is currently practising finfish farming in cages for Argyrosomus japonicus (Dusky cob). ii) In Namibia the focus is currently more on marine shellfish farming i.e. oysters and abalone as well as algae - to date there is no finfish farming, hence Lilongeni Fish Farming (Pty) Ltd. decided to be the first company to venture into marine finfish farming. **4.3** There is a potential for finfish farming in Southern Africa of especially Yellowtail Kingfish (15 000mt per annum) as it is of high value; the target market for this species will be the Asian Countries, while as for the Silver and Dusky Cob (5 000 mt per annum) will be mainly exported to Germany with limited portion for the Namibian market.

4.4 The two sites proposed by the Proponent are situated in Walvis Bay area which will be referred to as Site A and Site B (north and south of 23 degree Latitude South). A third Site C was also identified by the Proponent off Luederitz where Salmon are to be farmed. An alternative site off Oranjemund will be referred to (Site D).

4.5 The pros and cons for <u>Site A</u> are as follows: **Pros**

- Ideal site as it is close to the Walvis Bay harbour
- Presence of good infrastructure for fish processing purposes
- International airport present for exporting the processed fish products
- Availability of skilled labour force
- Ideal site for anchoring the cages as it is less than 100 m sea depth.

Cons

- An area which is prone to anoxia during late summer
- Presence of the cyclic sulphur eruption
- Proposed phosphate mining could negatively impact the operation

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- Red tides which lead to fish kills
- Vicinity of the current Merchant Vessels parking bay (potential pollution)
- No mitigation: the risk of losing capital investment is very high

4.6 The pros and cons of $\underline{\text{Site B}}$ are as follows **Pros**

- The proximity to Walvis Bay is ideal for finfish cage farming
- Presence of good infrastructure for fish processing purposes
- International airport present for exporting the processed fish products
- Availability of skilled labour force
- Ideal site for anchoring the cages as it is less than 100 m sea depth.
- Area offshore is in the vicinity of the spawning ground for other fish species which indicates an ideal environmental

Cons

- Late summer cyclic anoxia conditions (oxygen levels < 1ml/l upwelled to surface waters)
- Presence of sulphur eruption
- Proposed phosphate mining south of 23 degree Latitude can negatively impact the operation
- Presence of sporadic red tides
- Mitigation:
 - the Proponent advised to go further offshore at 200 m sea depth (45 nm offshore) which is not convenient for anchoring the cages as it is too deep.
 - ii) Anoxic levels offshore are negligible
- **4.7** The EAP resolved that Lilongeni Fish Farming (Pty) Ltd. should Move to Site C which is close to Lüderitz which is a more convenient area as there the sea depth is conducive for anchoring the fish cages (<100m) and there is no presence of sulphur eruptions and red tides.
- **4.8** It was further highlighted that Site C lies within the Marine Protected Area (MPA); however, the Namibia Island Protected Area Act of Act (NIMPA Dec 2012) does make provision that Aquaculture

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			operations can be conducted in the MPA if all	
			relevant risks are identified and mitigated.	
			4.9 Offshore: cage farming and	
			Inshore: Quarantine and fish processing facility	
5.0	EK	Negative and	5.1 The negative impacts that <u>might arise</u> due to the	
		Positive	establishment of the proposed finfish farm are	
		Impacts	outlined below:	
			The suspended cages could obstruct migratory	
			routes of the marine mammal species	
			Fish escapees from cages could lead to inbreeding	
			Pathogens import of Atlantic salmon species)	
			Tathogens import of Attaintic samion species)	
			5.2 The positive impacts of the proposed finfish	
			farm are outlined below:	
			MFMR Ministry has in place the Import and	
			Export Regulations which are to be followed and adhered to	
			Namibia Stand Institute (NSI) checks for the	
			quality of the exported products	
			The project will contribute to Namibia's GDP	
			Will encourage and stimulate future finfish	
			farming in Namibia	
			Internship opportunities for students	
			Provide bursary/scholarships for students at	
			tertiary level (e.g. BSc., MSc. & PhD)	
			Create Employment to an impoverished town	
	1	1		

NOTE: The Presentation and List of participants is hereby attached.

- 1. Comments, Questions, Concerns Raised By: Mr Ranga Haikali of Lilongeni Fish Farming (Pty) Ltd
- 1.1 Comments on Environmental Scoping Report: Mr Haikali explained the meaning of "Lilongeni" which is an oshiwambo word when translated into English it means: "to learn and acquire knowledge", thus the Proponent today would like to hear from the Public more about the pros and the cons, the do's and don'ts of their Finfish cage operation in the Atlantic ocean.

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1.2 Mr Haikali further applauded the shellfish farmers who have ventured into the mariculture industry and hung on over the years irrespective of the sulphur eruptions and toxic red tides. He requested all the present stakeholders to feel free to give their comments, be it positive or negative – they the Proponent are here to listen. All inputs will be documented by the Secretary and be addressed in the EIA / EMP report.

	T	
ISSUE/COMMENT	RAISED BY:	RESPONSE FROM EK & TB (NSI)
	Mr R.	
	Haikali	
a) What is the danger of the proposed finfish farming interfering with vessels traffic on the proposed Sites B		a. At Site B all cartographic ocean maps need to clearly indicate the fish cage operation; at Site C the shipping lanes are west of the islands i.e. at sea depth of 150m
and C:		plus. b. Recommend that:
 b) How can the Proponent avoid the: Natural occurrence of sporadic sulphur eruptions, red tides and anoxic conditions especially at Site B, Potential pollution and diseases that may result from the farming fish in cages e.g. fish feed, faeces, net damage and the import of fingerlings 		 The alternative would be to move Site B (i) far offshore i.e. to ca 45nm at 200m depth (not a practical option to secure the nets) Site B(ii) Introduction of new fish into an environment leads to a potential of new diseases, but the MAWLR (Directorate veterinary Services) and the Namibia Standard Institute (NSI) safeguard the potential of all nonindigenous fish species or any other product that is imported into the country (there are strict control measures in place e.g. 1 month quarantine, Veterinarian import and export certificates etc.) The possible pollution by Lilongeni Fish Farming (Pty) Ltd. could result from the excess
		of unused fish feed and fish faeces which leads to eutrophication. The solution would be to tow the cages to a
		new site from time to time where

currents are weak. However, along the Namibian coast these residues would be deflected offshore to deeper waters by the strong pulsating Benguela current and add to ocean enrichment. • There will be a control room with a person who will be monitoring any movement or faults that may arise on the fish cages via sensors that will trigger an alarm (early warning system) from the Service vessel that is stationed at the fish cage farm. c) Does the Ministry of Agriculture, Water and Land Reform (MAWLR) approve any imported feed and seedlings? Any fish feed imported into the country has to be approved and registered by the Ministry of Agriculture (MAWLR); the import of fry/smolt/fingerlings will need to be placed into quarantine for at lest 1 month and tested for potential pathogens by MAWLR the Directorate of Veterinary		
Services	Agriculture, Water and Land Reform (MAWLR) approve any imported feed and	along the Namibian coast these residues would be deflected offshore to deeper waters by the strong pulsating Benguela current and add to ocean enrichment. • There will be a control room with a person who will be monitoring any movement or faults that may arise on the fish cages via sensors that will trigger an alarm (early warning system) from the Service vessel that is stationed at the fish cage farm. Any fish feed imported into the country has to be approved and registered by the Ministry of Agriculture (MAWLR); the import of fry/smolt/fingerlings will need to be placed into quarantine for at lest 1 month and tested for potential pathogens by MAWLR the

2. Comments, Questions, Concerns Raised By: Zeist Invest				
ISSUE/COMMENT	RAISED BY: Mr	RESPONSE		
	Henning du Plessis			
 a) Mr HduP stated that the 		The advice and caution of		
oyster companies had to		Mr HduP has been duly		
learn the hard way and		noted and will be taken into		
that he was willing to		consideration.		
assist the Proponent				
based on his many years				
of experience in the				
mariculture industry				
within the Walvis Bay				
zoned Aqua Park.				
b) He suggested that the				
Proponent venture into				

	farming with finfish that	
	are of high value and	
	that will bring in high	
	income e.g. Bluefin	
	Tuna.	
c)	He further emphasised	
	that this is a project of	
	high magnitude thus the	
	Proponent should start	
	small by doing a pilot	
	study at least for the	
	first three (3) years.	
d)	Mr HduP concluded that	
	he is in support of this	
	Project.	

3. Comments, Questions, Concerns Raised By: Namibia Mariculture Association				
ISSUE/COMMENT	RAISED BY: Mr Koos	RESPONSE EK and FB		
	Blaauw			
Mr Blaauw raised the following questions: a) It is reported that the Norwegian Atlantic Salmon has a skin disease; what is the probability of salmon infecting other fish and shellfish at the proposed sites?		a. The Norwegian's have opened up a sister company in Chile; at the moment they are not sure of the exact cause that is affecting their Salmon; Fingerlings (smolt) will be imported from disease free countries e.g. Iceland and Scotland. b. Mr Botes: The regulations for the Import and Export states that all live animals imported into the country should be disease free (strict		

	protocols are in place to avoid this). c. The animal (i.e. smolt) will be quarantined for observation before released into the
	Namibian Namibian
	environment.

4. Comments, Questions, Concerns Raised By: Ministry of Fisheries and Marine		
Resources (MFMR) ISSUE/COMMENT	RAISED BY: Mr Ivory Uirab	RESPONSE
a). The Mariculture Finfish	Cirus	Mr Ivory's comments have
farming will be new and the		been noted down with
first of its kind in Namibia,		thanks.
meaning that MFMR will have		
to amend its laws to suit the		
finfish farming industry.		
b). The Government Fisheries		
inspectors and the NSI quality		
assurance officer's will be		
present during the period of		
harvesting the fishes from the		
cages to inspect for the		
presence of fish pathogens and		
to ensure that the correct		
methods have been followed		
during the harvesting process.		
c). Once the inspection has been		
carried out by NSI and MFMR		
they sign it off and give the		
clearance for the products to be		
exported out of Namibia.		
d). Mr Ivory advised the		
Environmental Assessment		
Practitioner (EAP) to engage		
with the Minister and the		
Executive Director (ED) of		
MFMR from an early stage.		

5. Comments, Questions, Concerns Raised By: Lilongeni Fish Farming (Pty) Ltd.			
5.1.Comment on Environm	nental Scoping Report		
ISSUE/COMMENT	RAISED BY: Mr	RESP	ONSE – by NSI, EAP,
	Haikali	Chair	
a). There is a company by the		a.	SGS is a commercial
name of SGS which is the			company therefore
world's leading inspection,			SGS will have to sign
verification, testing and			an MOU with NSI.
certification Company.		b.	NSI officials advised
 SGS is recognized as 			that using their
the global benchmark			services will cut cost
for quality and			as compared to using
integrity.			SGS. There was no
SGS has also engaged			need to engage with
in observing satellite			SGS as the NSI is the
monitoring of fish			registered Competent
escapees, and early			Authority that will deal
warning of any			with all export of fish
potential danger.			products.
		c.	Every month the cages
c). NSI to make links and seek			are stocked with fish of
co-operation with SGS			the same size (thus no
company.			cannibalism). The
			cages are used for
d). Is it possible from an			grow-out purposes
operational view point to place			only and the hatchery
fingerlings into cages?			on land will be used to
			rear fingerlings.
e). The possibility of		d.	The Salmon Smolts
cannibalism of large fish on			will be in hatchery
the smaller fish – how can this			where both freshwater
be prevented in the cage			and saltwater will be
culture?			made available.
		e.	Mr Botes also
			responded by
			informing the
			Proponent that the
			testing of shellfish and
			fish related products
			the MFMR regulations
			states that the tests
			should be carried out
			by NSI and the MFMR
			to ensure that the

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	f.	minimum requirements are met. The Proponent is advised to familiarise themselves with the MFMR's Aquaculture Act and Regulations.
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5.2.Additional Comments

- The EAP advised that, for the first five (5) years the proponents should import their fingerlings (smolt) while constructing their fish hatcheries. Thereafter, to venture into the production of fry for the Silver and Dusky cob and the Yellowtail Kingfish.
- The Proponent will have to set up a quarantine facility for their imported smolts as per the Aquaculture Import and Export Regulation of 2012.

6.0	FB	Any Other Business	6.1 It was agreed that the	
			Proponent with guidance from the	
			EAP plan for the Public Meeting	
			in Lüderitz (Alternative Site C).	
7.0	FB	Adjournment	7.1 The Chairperson thanked the	
			stakeholders for the valuable inputs	
			they provided during the meeting.	
			There being no other business, the meeting adjourned at 11:14	Approved

QUESTIONS

- Mr. Ranga Haikali introduced himself and addressed the meeting participants –
 his second name is Lilongeni (you must learn & acquire knowledge). He was
 born in WVB, was involved in the commercial fishing industry. Acknowledges all
 involved in mariculture. Requests the house to please feel free to raise
 concerns regarding the project. They need constructive inputs from all –
 industry, regulators, quality controllers etc. and they need information on areas
 like:
 - o What is / will be the impact of vessel traffic on the cages?
 - What will be the adaptability of foreign fish species (e.g. Atlantic salmon) with the local conditions i.e. temperature, Sulphur, pollution, etc.?
 <u>EK's response</u>: any introduction of species have the possibility of introducing pathogens. Salmon will not be exported only the product.

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MFMR has proper regulations that will provide for mitigation procedures. Pollution – we have pollution in the Namibian waters and vessels have a big carbon footprint. Sea cages will have an impact = eutrophication / added nutrients from uneaten fish feed en faeces. There will be impact from the cages, but technology exists to make mitigating actions.

- Henning du Plessis: he advised 4 persons when he was still involved with oysters and 2 of them listened, and 2 did not listen and went close to bankrupt. His advice to Lilongeni he has learnt a lot during his tenure e.g. anchoring, cages, vessel design etc. Things to be looked at include the species to be farmed with; start small and do a pilot project in the beginning.
- Koos Blaauw: about disease in salmon in Norway what do we know about salmon diseases and how will this be checked?

<u>EK's response</u> – there are known diseases and pathogens in Norwegian waters on salmon and it may be due to water conditions. Some Norwegian farmers are opening sister farms in Chile (?)

- Mr. Ranga Haikali as a follow up: can you have two cages next to each other for quarantine purposes of fingerlings / smolt from the land-based hatchery? If you are farming in the ocean with fish – what are the regulations (MFMR & NSI) regarding harvesting, processing and marketing of fish?
 - <u>NSI</u> they only get involved from the product and processing. The product must be tested according to NSI regulations.

<u>FB</u> – the MFMR colleagues will be able to answer this (quarantine issues) tomorrow at the IAP meeting in Swakopmund.

<u>Ivory Uirab (MFMR)</u> – from operations side and inspections: this will need to be considered by the MFMR and have to look at the Acts and Regulations. There will need to be changes in future.

Ranga Haikali - asked the NSI regarding technology of SGS (General Society of Surveillance) – Food Safety regarding fish farming?

<u>NSI's response</u>: SGS is a commercial laboratory and only tests for certain parameters but some tests can only be done by the NSI.

<u>FB's response</u> – all end product must be tested by an accredited laboratory and the product must meet the minimum standards and requirements of the importing country.

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- <u>Frikkie Botes</u> advised the proponent to get a copy of the Namibian Marine Spatial Plan (MSP) which is currently in its final stages and which was submitted to the EDs of all relevant Ministries.
- Ranga Haikali is it possible from a commercial view to import fingerlings from the supplier and put them in a cage and then put the 2nd generation in the other cage? How to prevent cannibalism in the cages - operational risks?
 - <u>EK's response</u> stocking will be done with 2nd generation from the land based hatchery and similar size will be stocked regularly to the cages thus minimizing cannibalsim.

Closure

FB thanked all the participants for their presence and contributions towards the meeting.

The meeting closed at 11h30.

Minutes Co	onfirmed as True reco	ord of the 2021,	Public Meeting hel (Pelican Bay), Wal	d on the 13 th of January at P vis Bay	rotea Hote
Name	Designation	Signature	Chairperson	Designation	Signature
Ekkehard	Team Leader	E, Klingelly	Frikkie Botes	Private – Pensioner (Ex	
Klingelho	EAP of:		1	of Aquaculture)	
effer	Atlantic Consulting			or requaeuntare)	
	Services				
	CC 2021/03824				
Minute Tal	ker		Other Member Pro	esent/ Witness	
Member's Name	Designation	Signature	Member's Name:	Designation	Signature
Nadmono	Atlantic Consulting	11/	Mr K Blouw	Chairperson of Namibia	
nghenda	Services -Minute			Mariculture Association	
Kauluma	taker				
	Team of Experts				

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Appendix 4b: THREE PUBLIC MEETINGS HELD AT WALVIS BAY, SWAKOPMUND AND LÜDERITZ DURING THE MONTHS OF JANUARY AND FEBRUARY 2021

Annex 9b: Minutes of Public Meeting held at NatMIRC Auditorium, Swakopmund, on the Tuesday 14th January 2021.

Commented [KE1]:

Lilongeni Fish-Farming (Pty) Ltd

Minutes of the Public Meeting of Environmental Impact Assessment (EIA) for Lilongeni Fish-Farming Pty. Ltd held on 14th of January 2021 at NatMIRC (MFMR), Swakopmund - between 09:00 to 11:07

Lílongení Físh-Farming (Pty) Ltd



Title	ATTENDEES/PARTICIPANTS	INITIAL	DESIGNATION AND POSITION
Mr	Frikkie Botes	FB	Facilitator – Chairperson
Dr	Ekkehard Klingelhoeffer	EK	Atlantic Consulting Services – EAP
Ms	Ndamononghenda Kauluma	NK	Atlantic Consulting Services – Expert

Ms	Maria N. Shimhanda	MNS	Atlantic Consulting Services – Expert
Mr	Thomas Mausberg	TM	Lilongeni Aqua Fishing Ltd — Shareholder
Mr	Ranga Haikali	RH	Lilongeni Aqua Fishing Ltd – Shareholder
Mr	Manuel Romero	MR	Beira Aquaculture – Director
Mr	Mike Scott	MS	African Conservation Services – Member
Mrs	Ann Scott	AS	African Conservation Services – Member
Mr	S. Gariseb	SG	NAMPORT - SHEQ Manager
Mr	Stephanus Hamukwaya	SH	Ministry of Fisheries and Marine Resources - Fisheries Biologist
Ms	Saskia Kisting	SK	Ministry of Fisheries and Marine Resources - FRT
Mr	Ruan Cowan	RC	Ministry of Fisheries and Marine Resource: Aquaculture - Fisheries Biologist
Mr	Georgie	G	FERMAR - Aquaculture expert
Mr	Victor Libuku	VL	Ministry of Fisheries and Marine Resources - Biologist
Ms	Charmaine Jagger	CJ	Ministry of Fisheries and Marine Resources - Biologist
Ms	Anja Van Der Plas	AVDP	Ministry of Fisheries and Marine Resources - Senior Scientist
Mr	Richard Horaeb	RH	Ministry of Fisheries and Marine Resources - Senior Biologist
Ms	Bronwen Currie	BC	Ministry of Fisheries and Marine Resources - Retired
Mr	Tasser Bisus	ТВ	Paulbo

Mr	Ivory Uirab	IU	Ministry of Fisheries and Marine Resources - Chief Fisheries Inspector
Mr	Tobias Endjambi	TE	Ministry of Fisheries and Marine Resources - Biologist
Ms	Scalia Shilongo	SS	Ministry of Fisheries and Marine Resources - Fisheries Technician Research
Mr	F. Hamukwaya	FH	Ministry of Fisheries and Marine Resources - Fisheries Technician
Dr	Anja Kreiner	AK	Ministry of Fisheries and Marine Resources - Chief Fisheries Biologist
Ms	Josephine Edward	JE	Ministry of Fisheries and Marine Resources - Fisheries Biologist
Ms	Penthecilia Kalonda	P	Ministry of Fisheries and Marine Resources - Chief Fisheries Research Technician
Mr	J. Ruther	JP	Ministry of Fisheries and Marine Resources - Senior Fisheries Biologist
Dr	P. Kainge	PK	Ministry of Fisheries and Marine Resources - Chief Fisheries Biologist
Ms	K. She	KS	Ministry of Fisheries and Marine Resources - Senior Fisheries Biologist
Mr	T. Nghwada	TN	Ministry of Fisheries and Marine Resources - Fisheries Biologist
Mr	J. Gei-Khaub	JG-K	Ministry of Fisheries and Marine Resources - Statistician
Ms	H Skrypzeck	HS	Ministry of Fisheries and Marine Resources - Chief Fisheries Biologist
Dr	Beau Tjizoo	BT	Ministry of Fisheries and Marine Resources - Chief Fisheries Biologist

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Mr	Tony Raw	TR	Benguela Ski boat Fish Association – Member
Dr.	John Kathena	JK	Ministry of Fisheries and Marine Resources - Senior Fisheries Biologist
APOI	LOGIES		
Mr	Deon Louw	DL	Ministry of Fisheries and Marine Resources - Phytoplankton Expert
Dr	Marion Klingelhoeffer	MK	Atlantic Consulting Services – Member
Dr	Andrea Klingelhoeffer	AK	Atlantic Consulting Services -Expert

THE MEETING RESOLVED AND AGREED ON THE FOLLOWING ASPECTS: -

NO.	wно	AGENDA	MINUTES OF THE MEETING
1.0	FB	Welcome	 1.4 The chairperson welcomed everyone present and called the meeting to order. 1.5 The Meeting commenced at 09:15 through face-to-face interaction. 1.6 Due to COVID 19 regulations the meeting will need to adjourn at 11h15
2.0	EK	Apologies	2.1 There were three (3) apologies noted (listed above)
3.0	EK	Remarks from the EAP	3.1 The meeting deliberated on the EIA process. 3.2 The Proponent undertook a <u>feasibility study</u> and came up with <u>four (4) alternative sites</u> proposed for finfish farming. This will be a mega investment and will have mega infrastructure in place with an estimated production of 35 000 metric tonnes (MT). Today the focus will be on Sites A + B near Walvis Bay.

4.0	EK	Presentation	 Site A – north of Walvis Bay (22° 50′ 8″ Latitude South and 14° 24′ 13″ Longitude East) – detail presentation Site B – south of Walvis Bay (23° 00′ 20″ Latitude South and 14° 20′ 56″ Longitude East) – detail presentation Site C – west of Lüderitz (26°37′40″ Latitude South and 15°01′53″ Longitude East)- referred to Site D – inshore true west of Oranjemund (28°41′27″ Latitude South and 16°17′25″ Longitude East) – referred to but not an option 3.3. Why this Project? The directorate of Mariculture was established in 2004 with offices in Lüderitz, Swakopmund and Windhoek but to date the mariculture finfish farming has not yet begun in Namibia. 3.4 The purpose of today is to engage with the public and the affected stakeholders to avoid possible conflicts and the need for transparency from the inception of this Project. 3.5 The Proponent has identified four species: three (3) indigenous (Argyrosomus inodorus, A japonicus & Seriola lalandi) and one non-indigenous species (Salmo salar) which all are destined for the export market. 4.1 The capture fisheries alone cannot sustain the world
4.0	EK	of the	globally due to the increase in human population (an ever
		proposed fin	increase in the demand for fish).
		fish culture	4.2 In Namibia shellfish and algae farming has been
		by the EAP	established but no finfish farming to date.
			4.3 Two proposed sites are situated in Walvis Bay which are referred to as Site A and Site B.
			4.4 The pros and cons for Site A are as follows:
			Pros
			 Ideal site as it is close to the Walvis Bay harbour Presence of good infrastructure for fish processing purposes International airport present for exporting the processed
			fish products • Availability of skilled labour force
			Ideal site for anchoring the cages as it is less than 100 m sea depth.

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Cons

- An area which is prone to anoxia during late summer
- Presence of the cyclic sulphur eruption
- Proposed phosphate mining could negatively impact the operation
- Red tides which lead to fish kills
- Vicinity of the current Merchant Vessels parking bay (potential pollution)
- No mitigation: the risk of losing capital investment is very high

4.5 The pros and cons of Site B are as follows

Pros

- The proximity to Walvis Bay is ideal for finfish cage farming
- Presence of good infrastructure for fish processing purposes
- International airport present for exporting the processed fish products
- Availability of skilled labour force
- Ideal site for anchoring the cages as it is less than 100 m sea depth.
- Area offshore is in the vicinity of the spawning ground for other fish species which indicates an ideal environmental

Cons

- Late summer cyclic anoxia conditions (oxygen levels < 1ml/l upwelled to surface waters)
- Presence of sulphur eruption
- Proposed phosphate mining south of 23degree Latitude can negatively impact the operation
- Presence of sporadic red tides
- Mitigation:

i) the Proponent is advised to go further offshore at 200 m sea depth (45 nm offshore) which is not convenient for anchoring the cages as it is too deep.

ii) Anoxic levels offshore are negligible

The EIA Process and why need to follow this path of consultations:

4.6 The EAP continued to provide an overview on the Environmental Impact Assessment (EIA) for the proposed

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finfish cage farming operation west of Walvis Bay by Lilongeni Aqua Fishing Ltd.

- **4.7** The EAP further stressed that the purpose of this event is to get input from the Public participants (stakeholders), thus there should be transparency and to avoid conflict. Thus, the EIA processes addresses all possible environmental issues that may be impacted by the fish cage culture; the Proponent (Lilongeni Aqua Fishing Ltd) needs to meet all the necessary requirements (risk mitigation where necessary) before they are issued a clearance Certificate.
- **4.8** The Screening process (Stage 1) was carried out and the BID has been submitted to the Environmental Commissioner (EC) online on 11th November 2020 of the Ministry of Environment, Forestry and Tourism (MEFT).
- **4.9** The global "Capture Fishery" is showing a decreasing trend over the past 3 decades and Aquaculture in contrast is showing an exponential increase in both fresh water and marine species. The world demand for fish is ever on the increase.
- i) In the SADC region, South Africa is the only country which is currently practising finfish farming in cages for *Argyrosomus japonicus* (Dusky cob).
- ii) In Namibia the focus is currently more on marine shellfish farming i.e. oysters and abalone as well as algae to date there is no finfish farming, hence Lilongeni Aqua Fishing Ltd. decided to be the first company to venture into marine finfish farming.
- **iii)** There is a potential for finfish farming in Southern Africa of especially Yellowtail Kingfish (15 000mt per annum) as it is of high value; the target market for this species will be the Asian Countries, while as for the Silver and Dusky Cob (5 000 mt per annum) will be mainly exported to Germany with limited portion for the Namibian market.

In conclusion:

4.10 Site C proposed by the Proponent was envisaged for
the extension of the Walvis Bay operation and to focus there
on farming only with the Atlantic Salmon. However, the
EAP resolved that Lilongeni Aqua Fishing Ltd. should
move the entire operation to Site C which is close to
Lüderitz; the advantages include:
i) the entire operation for all species will be at one site
which from a management and financial aspect will be more
cost effective
ii) Lüderitz town has all major facilities in place e.g. good
infrastructure, functional operating harbour, airport, good
rail and road infrastructure etc.
iii) the sea depth at Site C is less than 100m which is
suitable for anchoring the cages
iv) due to the strong Lüderitz upwelling cell red tides,
anoxic events and sulphur eruptions are not recorded in this
area
4.11 Site C lies within the Marine Protected Area (MPA);
however, the Namibian Islands' Marine Protected Area (NIMPA)
(No. 316 of 2012) does make provision that <u>aquaculture activities</u>
may be permitted to operate in this zone (but outside Zone 3 co-
ordinates) provided that all potential risks have been addressed.
4.12 Onshare appretions will include fish pro
4.12 Onshore operations will include: fish processing
facility, storage of feed, fingerling quarantine facility for
imported salmon, hatchery for the production of fingerling's,
office complex
4.13 In conclusion: Let Namibia be the first and contribute
to the "Blue Economy"

1. Comments, Questions, Concerns Raised By: Lilongeni Fish Farming (Pty) Ltd. 1.1.Comment on Environmental Scoping Report				
ISSUE/COMMENT	RAISED BY: Mr Ranga Haikali	RESPONSE by FB		
Mr. Haikali commented that Lilongeni Fish Farming (Pty) Ltd is		The Chairperson Mr Frikkie Botes thanked Mr Haikali for		

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here to learn from the experts from various fields and backgrounds. There is no project that has embarked into the marine finfish farming in Namibia to date. • Lilongeni Fish Farming (Pty) Ltd is here to learn from the experts about the do's and don'ts • Mr Haikali explained what the meaning of Lilongeni is which refers to – eager to learn • Due to COVID-19 food commodity has been affected thus as Namibians we need to be self-sustainable and produce our own foods instead of relying on imports from our neighbouring countries. • Norway, Iceland, Chile, Scotland, etc. are some of the few countries who are doing well for themselves when it comes to Mariculture (finfish). • The proposed species are not destined for the local market; the Proponent stated that there was no need to compete with the Namibian commercial farmers supplying fish to the local markets.		the comments and opened the floor for questions from the audience.
2. Comments, Questions, Concerns Raised By:	Ministry of Fis	heries and Marine Resources
ISSUE/COMMENT	RAISED BY: Dr Anja Kreiner	RESPONSE by Dr EK
Dr Kreiner commented that if <u>Site B</u> is to be chosen which will be at 45 nm offshore at a 200m sea depth the Proponent will need to take into consideration the impacts this operation will have on the oceanographic parameters (chemical and biological) on		The points raised by Dr Kreiner on the potential impacts that the operation will have on the 23 degree monitoring line were recognized by the EAP and noted.

the EAP and noted.

parameters (chemical and biological) on

the long-term monitoring line on 23

degree Latitude. Will the mega cage	 The shipping lanes in the
culture change environmental	proposed new site
parameters in this region and if so to	offshore will be
what extent? Will the Proponent be able	investigated through
to ID the possible effects that the cage	Walvis Bay NAMPORT.
culture will have on the environment?	
The consultants of the proposed	
Phosphate mining were not able to	
explain this aspect i.e. the effects of	
mining in this area on:	
i) The fish nursery grounds	
ii) The long-term oceanographic	
parameters on 23 degree latitude	
 In addition, this cage culture can hinder 	
movements of the fishing vessels and	
merchant vessels operating in this area	

ISSUE/COMMENT	RAISED BY: Tony Raw	RESPONSE by Dr EK
 Lilongeni Aqua Fishing is to be complimented for taking the first step to venture into the finfish farming industry. He further stated that in the presentation he has not seen any information on thecorrelation between the existing inshore (< 200m) and offshore (> 200m) fishing, as well as migratory routes, and the proposed fish cage culture operation. Clear navigational demarcation must be 		 Dr. E. Klingelhoeffer responded as follows: Demarcation of the area to be operated in ca 2 500 ha and possible overlaps with current fishing vessels will be investigated. The pollution aspect e.g eutrification will be addressed in the EIA report
provided.Mr. Raw raised the following question:		The Proponent has assured that 95% of the fish to be farmed with

Is there any oil pollution contingency plan that will guide against the pollution of waters and what will the possible impacts on the project be??	will be destined for the export market
ii) The Lilongeni Aqua Fishing project is requested to please not swamp the Namibian market with fish as this will negatively impact on the current ski boat line fishery business as Namibia is their market	

a) What is the source of feed for the proposed fish species?	a)	TI :11.1 C
		The source will be from
		Hermanus Feeding
b) What is the spatial coverage of		Company (South
the project? The site should be		Africa); they specialize
north of the 23 degree line.		in tailor made feed for
c) If diseases arise what		each particular fish
vaccinations will be used?		species and age. Once
		the Ministry of
		Agriculture has
		approved the feed it will be listed on their
	L)	register.
	D)	The spatial coverage area is ca 500 hectares
		(ha) and the Directorate
		of Maritime Affairs will
		be informed of the
		specific site to be included in mapping.

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c)	When importing any live
	fingerlings into
	Namibia, they need to be
	free from
	diseases/pathogens
	before they enter the
	country. There are
	protocols in place from
	the export and the
	import country that need
	to be adhered to. In
	addition, all live
	organisms imported into
	Namibia will need to be
	placed under quarantine
	prior to being released
	into the Ocean.

5.Comments, Questions, Concerns Raised By: Ministry of Fisheries and Marine Resources (MFMR)

ISSUE/COMMENT	RAISED BY: Mr Stephanus Hamutenya	RESPONSE by BC
Mr Hamutenya raised the following questions: a) How will the Proponent handle the situation at the two proposed sites A + B once a Sulphur eruption takes place?		Response from Ms Bronwen Curie: The closer the cages are to the shore the more the risk of the Sulphur eruption. Moving 200m sea depth (ca 45 nm) far offshore would be the way to go. The Proponent should find out the critical oxygen

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interest through literature study.
Unless the
Proponent will have
a plan of action in
place to move the
fish cages during sulphur eruptions
and red tides, only
then can they
consider the two
proposed sites
(A&B).
Yellowtail kingklip
is readily abundant
in the South
(Lüderitz area)

6.Comments, Questions, Concerns Raised By: Ministry of Fisheries and Marine Resources (MFMR)

Resources (MFMR)					
ISSUE/COMMENT	RAISED BY: Mr Victor Libuku	RESPONSE by Dr EK			
On the issue of medication, how will the medication be monitored and will a baseline be established beforehand regarding the impact of vaccines and chemicals that will be used by the project? And how will it affect the other fish in the natural ecosystem? Mr. Libuku's concern is that the Proponents need to consider the waste impact on the environment from feeding the fishes.		Vaccines will neither be sprayed nor any other chemicals are to be used offshore at the cage culture farm. Should vaccines be used this will ONLY be onshore at the quarantine facility; Our Ocean is very dynamic thus the waste will drift off with the currents and will not remain in one position			

The Proponent should also be able to calculate how 40,000MT of feed will affect the bottom dwellers. 7.Comments, Questions, Concerns Rainers	ised By: Lilon	(Eckman Transport – filament effect). • Monitoring of the seabed will be done as of day one of operation. Intern students will be accommodated to assist in surveys. However, literature states that approved fish feed that ends up as waste gets dispersed and taken up by the system.
ISSUE/COMMENT	RAISED BY: Mr Ranga Haikali	RESPONSE by AK
 The Proponent is aware that Salmon is a non-indigenous species and all aspects to mitigate risks will be taker into consideration Currently commercial Yellowtail prices have dropped; the Proponent yesterday was recommended to look at the Blue Fin Tuna species as an alternative. The proponents are aware of all the potential impacts that the finfish farming have and they will have to find the mitigation factors. 	1	Dr Kreiner responded as follows: • The Proponent will have to prove the impacts of potential pollutants will have on the environment e.g. from fish feed and faeces; the Proponent will be required to do desktop studies. • The Proponent must provide the data to determine how far south from the 23 degree line the project site must be. They could possibly install monitoring

		buoys or current meters and monitor relevant data for maybe 1 year.
		All above pending if Site B (ii) will be considered.
8.Comments, Questions, Concerns Rais Resources (MFMR)	ed By: Ministr	y of Fisheries and Marine
ISSUE/COMMENT	RAISED BY: Ms Josephine Edward	RESPONSE by RH
Ms Edward raised the following questions: a) Due to the fear of the unknown has Lilongeni Aqua Fishing Ltd. considered using the Recirculating Aquaculture Systems (RAS) for the Salmon species since it is foreign species? Or have they considered the possible use of Cape salmon? 9.Comments, Questions, Concerns Rais Resources (MFMR)	ed By: Ministr	Mr Haikali responded as follows: • The adaptability of the Salmon species has been considered. But the Proponent has noted down the question raised by Ms Edward and will look into the RAS system.
ISSUE/COMMENT	RAISED BY: Dr Beau Tjizoo	RESPONSE Dr EK
a) Will the hatchery be land based?b) If so, where will the hatchery be situated?c) Is the hatchery included in the EIA study?		• Yes the hatchery will be land based - however, the focus initially will be to establish a quarantine facility and future a hatchery in the future (fry / smolt to be imported.

		 Should Lilongeni Fish Farming (Pty) Ltd settle for site B(ii), the hatchery will be located in Walvis Bay. If the Proponents agree to move their Finfish Farm to site C, the hatchery will be based onshore in Lüderitz.
10.Comments, Questions, Concerns Raise	d By: FERM	[AR
ISSUE/COMMENT	RAISED BY: Mr Georgie	RESPONSE by Dr EK
 From the aquaculture production view point, when working with Finfish it is important that you as a farmer need to understand that the conditions of fish in tanks, cages or ponds is different from that of fishes in their natural environment and the temperature changes accordingly. The Feed Conversion Ratio (FCR) of 1:2 is out of the normal range. Literature revealed that the recent FCR of 1:15 will give you the best productivity. Trials for the Salmon species do not really yield good results, this is basically due to parameters such as the water temperature. An increase in water temperature for Salmon can be detrimentalthus it is important to know what the required/optimum water temperature is for the species that you are rearing. Mr. Georgie further advised that the proponents should consider a trial or 		 Agree that the 1:2 FCR can be reduced through good feeding management; the ration mentioned by the EAP is the worst case scenario. Site C (Lüderitz) has the ideal temperature ranging from 12 – 14 degrees C for proposed Salmon species. All other comments made were noted and will be addressed.

the actual project in literature.		g on	tor of Fishoning and Marin
Resources (MFMR)	ons, Concerns	Raised By: Minis	try of Fisheries and Marine
ISSUE/COMMENT		RAISED BY: Mr Ferdinand Hamukwaya	RESPONSE by FB and Dr EK
a) What procedures wi when vaccinating the state of the s	e fish?	RESPONSE by	The vaccines will be administered via the water or through the feed. With the advancement of technology, a computerized system will be used to administer the vaccine try of Fisheries and Marine RH
	Hamutenya		

The only way for the Freshwater aquaculture to flourish is by privatizing it instead of it being run by the government. Fresh water aquaculture fish products from Asia are currently swamping the global markets. 13.Comments, Questions, Concerns Raised By: African Conservation Services						ets he
ISSUE	/COMI	MENT	RAISED BY: Mr & Mrs Scott	RESPONSE		
 a) How will the cages deter birds from getting entangled in the nets? b) Mr and Ms Scott advised that, if not already approached, to consider including the Albatross Task Force for their inputs. 			 Mr and Mrs Scott's inputs have been noted down and for appropriate action to be taken the Proponent should contact the Albatross Task Force. The cages to be installed have bird and marine mammal repellents in place. 		en ct	
				•		
5.0	FB FB	Any Other Business Adjournment and Next Meeting	5.1 The meeting agreed that the Proponent with the guidance by the EAP to plan for a Public meeting in Lüderitz. 5.2 Minutes of meeting to be made available to any I&AP. 6.1 There being no other business, the meeting adjourned at 11:07		Approved	
			CONFIRMAT OFF of MINU	TION AND SIGN ITES		

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Minutes Approved for Circulation		Minutes Confirmed as True record of the Meeting held on the 14 th of January 2021.			
Name	Designation	Signature	Chairperson	Designation	Signature
Ekkehard Klingelho effer	Team Leader EAP of: Atlantic Consulting Services CC 2021/03824	Es Klugeth	Frikkie Botes	Private – Pensioner (Ex staff of MFMR Directorate of Aquaculture)	
Minute Ta	ker		Other Member Pre	esent/ Witness	
Member's Name	Designation	Signature	Member's Name:	Designation	Signature
Nadmono nghenda Kauluma	Atlantic Consulting Services -Minute taker Team of Experts	*	Ms Bronwen Currie	Private – Pensioner (Ex staff of MFMR Directorate of Aquaculture	

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Appendix 4c: THREE PUBLIC MEETINGS HELD AT WALVIS BAY, SWAKOPMUND AND LÜDERITZ DURING THE MONTHS OF JANUARY AND FEBRUARY 2021

<u>Annex 9c:</u> Minutes of Public Meeting held at The Nest Hotel, Lüderitz on 23rd February 2021.

Lilongeni Fish-Farming (Pty) Ltd.

Minutes of the Public Meeting of Environmental Impact Assessment (EIA) for Lilongeni Fish-Farming (Pty) Ltd. held on 23rd of February 2021 at The Nest Hotel, Lüderitz from 09:00 to 11:30



	Title	ATTENDEES/PARTICIPANTS	INITIAL	DESIGNATION
1	Ms	Aune Nantinda	AN	Hangana Abalone
2	Dr	Ekkehard KlingelHoefer	EK	Atlantic Consulting Services
3	Dr	Marion Klingelhoefer	MK	Atlantic Consulting Services
4	Ms	Maria Shimhanda	MS	Atlantic Consulting Services
5	Ms	Ndamononghenda Kauluma	NK	Atlantic Consulting Services

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6	Mr	Thomas Mausberg	TM	Lilongeni Aqua Fishing Ltd	
7	Mr	Ranga Haikali	RH	Lilongeni Aqua Fishing Ltd	
8	Ms	Razi Kaviua	RK	Metcalfe Beukes Attorneys	
9	Ms	Kasen Neliwa	KN	Marco Fishing	
. 10	Mr	La Kassel	LK	5 Roses Agua	
. 11	Mr	Austin Kruger	AK	SY Zephyl	
. 12	Mr	Tomas Nanyambe	TN	Ondjambi Aquaculture	
. 13	Ms	Elizabeth Petrus	EP	Ministry of Fisheries and Marine Resources	
. 14	Ms	Foibe B Nghoongulobe	FBN	Ministry of Fisheries and Marine Resources	
. 15	Ms	Jessica Kemper	JK	Private	
. 16	Ms	Diina Mwaale	DM	Ministry of Fisheries and Marine Resources	
. 17	Ms	Hileni Malumbi	НМ	Ministry of Fisheries and Marine Resources	
. 18	Mr	Paulus Ngalangi	PN	Ministry of Fisheries and Marine Resources	
. 19	Mr	Sackias S. Shimuandi	SSS	AHCA	
. 20	Mr	Evildie Andreas	EA	Ongoya Coastal Tours	
. 21	Mr	Jsey Kemer	JK	Ministry of Fisheries and Marine Resources	
. 22	Dr	K. Grobler	KG	Ministry of Fisheries and Marine Resources	
. 23	Ms	Moira Elia	ME	Coastways Tours	
. 24	Ms	Aina Petrus	AP	Ondjambi Aquaculture	
. 25	Ms	Rossie Erasmus	RE	Benguela Weather	
. 26	Mr	Amadhila Abner N.	AAN	Ministry of Fisheries and Marine Resources	
. 27	Ms	Kapia Saima	KS	Ministry of Fisheries and Marine Resources	
. 28	Ms	Brigitta Fredericks	BT	Lüderitz Town Council	
. 29	Mr	Maan Avendji	MA	Ministry if Fisheries and Marine Resources	
. 30	Mr	Wilfred Henock	WH	Namport	
. 31	Mr	Asser Mukapuli	AM	AHCA	

1. WELCOME REMARKS

- The chairperson welcomed all government officials and the public at large for making time to be present here today at Lüderitz Nest Hotel.
- The main reason for today's gathering is to be informed on a mega fish farming project proposed by Lilongeni Aqua Fishing west of Lüderitz.
- The EAP Dr Ekkehard Klingelhoeffer who is well known among GRN officials seated here as well as the mariculture fraternity.

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 Dr Klingelhoeffer was very instrumental implementing the one-stop shop for parties applying for Aquaculture Licenses.

2. COVID-19 REGULATIONS

- COVID-19 regulations will be strictly adhered to during the time of this
 meeting according to the Government directives.
- Tea/Coffe time: 09:00 09:15
- The maxim time allowed for holding meetings is 2 hours as per the COVID-19 regulations.

3. NEWSPAPER ADEVERTS WITH REGARDS TO THIS PUBLIC MEETING

Interested and affected parties have been notified about the EIA public meeting for Lilongeni Aqua Fishing Ltd via the newspaper adverts placed into The Republikkein, Allgameine Zeitung and Namibian Sun Newspapers on the 29th of January 2021 and The Namibian Newspaper on the 3rd of February 2021 respectively.

4. APOLOGIES

The Chairperson gave apologies for the public participants (Stakeholders) and the EAP team members who could not be present for today's meeting as tabulated below:

	APOLOG	APOLOGIES				
No.	Title	Name(s)	Initials	Designation		
1.	Dr	Andrea Klingelhoeffer	AK	Atlantic Consulting Services		
2.	Ms	Njaleka Susan	NS	!Naminus Councilor		
3.	Hon	Mayores Hartzenberg	MH	Lüderitz Town Council		
4.	Dr	Lima Martens	LM	LM Environmental Consulting		

5. REGISTERED AND INTERESTED PARTIES

Fifteen individuals had registered as interested parties.

6. INTRODUCTIONS

a. The Public

Public participation is important in the EIA process as it allows for active interaction between (I&AP's) and the client. The aim of this participatory opportunity is for the I&AP's to voice their opinions, suggestions and/or comments on the proposed project. All registered I&AP's will receive further information as the EIA process continues. Stakeholder consultations were held in mid-January 2021 after a clear directive had been received from the EC office of MEFT (1st at Walvis bay & 2nd at Swakopmund) and the 3rd Public consultation is taking place here today in Lüderitz.

b. The EAP

The Proponent appointed Atlantic Consulting Services t/a Dr Ekkehard Klingelhoeffer, as the Environmental Assessment Practitioner (EAP).

c. The Proponent

EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

The proponent Lilongeni Aqua Fish-Farming (Proprietart) Ltd., which is a Namibian registered Company (Co. Reg. No. 2015/0190). Lilongeni Aqua Fish-Farming Ltd is a joint venture company established by four individuals (Two (2) Namibians and Two (2) foreign nationals).

7. EAP Dr Ekkehard Klingelhoeffer PRESENTATION

7.1Feasibility study has been done by the proponents and the study identified four feasible sites for the proposed mariculture finfish farming.
7.2The EIA process (What does it say?)

- An Environmental Clearance Certificate (ECC) should be obtained from the Ministry of Environment, Forestry and Tourism (MEFT).
- The three stages of the EIA process are as follows:
- Stage 1: Screening process The screening process was carried out and the
 documents have been submitted to the Environmental Commissioner in the
 Ministry
 of Environment, Forestry and Tourism (MEFT).
- Stage 2: Scoping process The EIA public participation meetings were held in Walvis Bay and Swakopmund on the 13th and 14th of January 2021 respectively and on this day (23rd January 2021) another EIA public participation meeting was held in Lüderitz.
- 7.3 The presenter put emphasis on the "Blue Economy" which focuses on renewable energy, seafood and marine production, and offshore engineering.
 - Africa: At the Blue Economy Conference which took place in Nairobi, Kenya, the global community deliberated on how to achieve the sustainable use and conservation of aquatic resources for improved human wellbeing, social equity and healthy ecosystems.
 - Namibia: NDP 5 serves as a blueprint on how Namibia can accelerate development. The Blue Economy is one of the interventions for an inclusive economy, which will reduce poverty and inequality to achieve Vision 2030 objectives.
 - Namibia to implement the Blue Economy governance and management system in January 2022.
 - As stated by the Khomas Governer "The concept of the blue economy is an approach aimed at significantly increasing and harnessing the economic value of the ocean in an environmentally sustainable manner".
- 7.4 The meeting deliberated on the Environmental Impact Assessment (EIA) for the proposed finfish cage farming operation west of Lüderitz by Lilongeni Fish farming (Pty) Ltd.
- 7.5 The purpose of this event is to inform interested and affected stakeholders about the proposal and its likely effects. To take into account information and views of the public in the EIA and decision-making. To provide adequate opportunities to stakeholders to raise their concerns and influence decision making at early stages of the project. For the proponents to obtain local and traditional knowledge that may be useful in decision making. For transparency and to avoid conflicts with stakeholders. Thus the EIA processes addresses all the relevant issues required by the proponent

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(Lilongeni Fish Farming Pty Ltd) to meet all the necessary requirements before they are issued an Environmental clearance Certificate.

- 7.6 The global finfish farming production has decreased due to the increase in world population.
- 7.7 In the SADC region;
 - South Africa is the only country which is currently practising finfish Farming
 in cages of Argyrosomus japonicus (Dusky Kob) fish species and Shellfish
 (Oysters, Abalone & Scallops) as well as algae. In the Aquaculture sector they
 are currently farming with Tilapia species (Oreochromis andersonii &
 Oreochromis niloticus) and the African Catfish (Clarias gariepinus).
 - In Namibia the focus is more on shellfish farming of oysters, abalones and algae and to date there is no finfish farming, Hence Lilongeni Fish farming (Pty) Ltd. decided to be the first company to venture into finfish farming.
- 7.8 There is high potential for finfish farming in Southern Africa of Yellowtail Kingfish as it is a fish of high value, the target market for this species is the Asian Market, while as for the Silver Kob which is a fish of good value will be exported to Germany.
- 7.9 The two previously proposed sites are situated in Walvis Bay which are referred to as Site A and Site B.
- 7.10 The pros and cons for Site A are as follows:

Pros

- Ideal site as it is close to the Walvis Bay harbour
- Presence of good infrastructure for fish processing purposes
- International airport present for exporting the processed fish products.
- Availability of skilled labour.
- Ideal site for anchoring the cages as it is less than 100 m sea depth.

Cons

- Presence of the sulphur eruption
- Proposed site for phosphate mining
- Red tides which lead to fish kills
- No mitigation: the risk of losing capital is very high
- Area is in the vicinity of the spawning ground for other fish species
- 7.11The pros and cons of site B are as follows

Pros

• The proximity is ideal for cage farming

Cons

- · Availability of sporadic anoxia
- Presence of sulphur eruption
- Proposed site for phosphate mining
- Presence of red tides
- The area is in the vicinity of spawning grounds for the marine finfish species of the Atlantic Ocean
- Mitigation: the proponent has to go further offshore at 200 m sea depth which
 is not convenient for anchoring the cages as it is too deep. As you move
 further away from the shore line the anoxic levels become high due to the
 Benguela current.

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- 7.12 At the meetings held in Walvis Bay and Swakopmund it was further resolved that Site C lies under the Marine Protected Area (MPA) which in this case Mariculture is permitted in the MPA zone as per the Marine Resources Act (MRA) 27 of 2000.
 - The EAP resolved that Lilongeni Fish Farming (Pty) Ltd. Should Move to Site C which is close to Lüderitz and is a more convenient area as the sea depth is conducive for anchoring the fish cages and there is no presence of sulphur eruption. Thus the EIA public participation meeting for today.
- 7.13 Type of Activity: Offshore the construction and operation of a finfish farm in cages and Onshore a warehouse, quarantine and hatchery facilities, and office block.
 - The fish species to be farmed are: Yellowtail kingfish (Seriola lalandi), Dusky Kob (Argyrosomus coronus) and Salmon (Salmo salar)
 - The site coordinates and footprint is 26°37'40' Latitude South and 15°01'53' Longitude East.
 - Onshore footprint includes: fish processing facility, fish hatchery (broodstock and fingerling production), quarantine facility for imported fish eggs, office complex, warehouse (fish feed and spares etc.).
- 7.14 Site C(i) is conducive due to the following reasons:
 - Minimal risks (conducive oceanic environment)
 - Oxygen levels are > 3ml/L
 - Sea depth is < 100 m (good for cage anchoring).
 - Water temperature ranges from 12°C to 15 °C (ideal temperature for Salmon & Yellowtail farming).
 - Good infrastructure at Lüderitz (harbour, airport, road network, fish processing factories etc).
 - Need to consider the Regulation to the Namibian Island's Marine Protected Area of 2007 and December 2012 and to mitigate accordingly.

8. QUESTIONS AND RESPONSES

All comments, concerns and questions that were raised during the meeting have been duly noted as outlined below.

Comments, Questions or Concerns Raised By: ACHA		
Consultant: Mr Sackias Shimuandi		
Question Response (EK)		

EIA SCOPING and IMPACT ASSESSMENT REPORT for the PROPOSED FINFISH CAGE FARMING PROJECT OFFSHORE from LÜDERITZ

- 1. How many km's into the sea is the proposed site?
- 2. Salmon Species prefer to breed in freshwater, if they escape into the freshwater bodies e.g. The Orange River what measures have been put in place for escapees'?
- 1. The proposed site is six (6) km from Dias Point.
- 2. The cages have an inner net which is protected by a strong wire mesh which has a durability life span of 14 years. Worst case scenario -- should escapees take place these fish will be taken by the strong current offshore in a north westerly direction 100's km north of the Orange river.

2 Comments, Questions or Concerns Raised By: Lilongeni Fish Farming (Pty) Ltd:

Mr Ranga Haikali

Questi	ons	Respo	nse
1	ICAL EAD 11.	1	0.1 .11 .
1.	If the EAP could give more	1.	- I
	information on the oil spills, fish		which is experienced
	escapees and inbreeding of the		throughout the world, should
	farmed species with other marine		any oil spills occur
2	species.		dispersants, booms and
2.	The imported feed what is the		skimmer methods will be
	source where the feed will be		employed to clean up ocean oil
	bought from and what are the		spills. This point has been
	potential impacts of the imported		noted down and will be taken
2	feed?		up further with the Ministry of
3.	What methods will be used to feed	_	works and transport.
	the fish?	2.	The fish feed will be procured
4.	What kind of cages can be used to		from Hermanus Aquatic Feeds
	prevent the sharks from breaking		Producer. Their Aquatic Feeds
_	the cages?		are tailor made for each
5.	The offshore cages; will there be		individual fish species of your
	any monitoring done on the cages?		choice. All fish feed will be
			tested by MAWLR prior
		_	import.
		3.	Automated feeding machines
			will be used to feed the fishes
			in the cages. The automatic
			feeding machines work by
			providing food at different

time intervals using a timer.
The automatic feeding
machine allows you to set up
the feeding times according to
your own specifications
4. Shark repellents will be used
to prevent predation of the
fishes in cages. Sensors will be
deployed to detect the
presence of any potential
dangers approaching the cages
which will set of an alarm to
warn/inform the staff onshore.
In addition the cages are
protected on the outside by
steel wire mesh which have a
durability life span of 14
years.
5. Monitoring of the cages will
be done through the use of the
latest technology which will
be operated from a Service
Vessel based at the farm.
There will be what is known
as a control room on board.
Under water cameras will be
attached to the cages so that
the staff on the Service Vessel
can monitor current
environment of the cages
through a computer.

3. Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources: Ms Diina Mwaale		
Question	Response	
What type of feed will be used and what is the source of the feed?	The type of feed to be used will be tailor made for the three proposed species (Yellowtail, Silver Kob & Atlantic Salmon). The feed will be procured from Hermanus, RSA. The proponents are currently in contact with the Ministry of Agriculture, Water & Land Reform	

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to register Hermanus Aquatic Feeds
as a fish feed exporter into Namibia.

4 Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine			
Resources: Dr Jessica Kemper			
Concerns	Response		
1 77 10': 0': '(0)1 6	1 D V 1 1 1		
1. The proposed Site C is six (6) km from Dias Point -this is a high risk area for bird populations (foraging grounds for the penguins) and lies in the migratory path for the dolphins and whales; seal colonies are also found on the	Dr Kemper's concerns have been noted down and they will be addressed		
nearby islands 2. Jessica's main concern is that the cage culture farm is too close to Halifax and. Putting up a finfish farm will attract the birds to the fish cages as this is close to the birds feeding grounds and this becomes a danger zone to the birds as they might get entangled into the cage nets.	2. The cages to be deployed will be equipped with deterrent sensors; in addition the cages at most times will be submerged and protected by a durable wire mesh.		

5 Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources: Dr Kollet Grobler

Concerns & Comment	Response	
Points raised include: 1. Halifax Island has high numbers of penguins. 2. Not in support of the proponents wanting to bring in Atlantic Salmon as one of the proposed species. 3. The vaccines and the growth hormones that are used all end up into the marine environment.	 Dr Grobler's concerns have been noted down and will be taken into considerations The comment on mitigations have been duly noted and the EAP will write them down clearly in the final report. 	

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- 4. Fish pathogens and diseases cannot be contained in a fish tank/cages.
- 5. The proposed area is very rich in jellyfish and they end up causing harm to the Atlantic Salmon species.
- 6. Six (6) km east of the proposed site is a major feeding and breeding area for the bird colonies e.g. penguins.
- The EAP in his presentation has outline the mitigations but has not stated how these mitigations will be resolved.
- Site C proposed lies in the midst of their long term oceanographic monitoring line.

6 Comments, Questions or Concerns Raised By: Namport: Mr Wilfred Henock

Questions

How many cages will be installed and

2. At what sea depth will the cages be anchored?

what are their diameters?

- 3. How long does the fish stay offshore before it is processed into the final product?
- 4. Will the processing be done offshore or onshore?
- 5. Approximately how long will maintenance of the fish cages take place and during the maintenance stage will the cages be emptied?
- 6. Which are the proposed species?
- 7. What type of marine species are currently travelling along the proposed site?

Response (EK)

- 1. Different cage shapes and sizes are available worldwide. The number of cages and their sizes in diameters will be known at the initial stage of the design. The cluster cage system is recommended which will have least impact in the sense that only 3 will be deployed (one per species); holding capacity per cluster cage is 12 000 tonnes.
- The preferred sea depth of anchoring the cages is < 100 m deep.
- 3. Max 2 years.
- 4. Immediately once the fish has been harvested from the cages it will be placed in fish crates containing ice to prevent spoilage while they are being transported to shore for further processing.
- 5. Cages will be checked on a daily basis. Once harvesting has been

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done a full inspection and cleaning will be conducted per cage unit.
6. The three proposed species are: a)
Silver Kob) Yellowtail Kingfish
and c) Atlantic Salmon
Seals, sharks and dolphins and
whales at times.

7 Comments, Questions or Concerns Raised By: Lilongeni Fish-Farming (Pty) Ltd: Mr Ranga Haikali

Comments

Mr Haikali explained to the audience the meaning of the name Lilongeni. Lilongeni is an Oshiwambo word which means "Let us learn/ teach each other" meaning that the proponents are here to learn from the experts in the various fields.

- More importantly the Proponents are here to learn about environmental sustainability and to contribute to the Namibian economy through the use of the marine resources (fish).
- Mr Haikali informed the audience that they should feel free in expressing themselves through asking questions, comments or raising their concerns with regards to the proposed finfish mariculture project.
- 4. The participant's questions or comments be it negative or positive the Proponents will take all both criticisms positively as they do not want to end up in a situation where they have to fight the public.

Response

Mr Haikali also responded to some of the questions regarding the fish processing factories:

- There are current idle infrastructures which are not being used, the proponents will upgrade the already existing infrastructures to suit their needs.
- The harvested fish will be processed at existing fish factories (Lüderitz) which are currently running at low capacity

8 Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources; Ms Diina Mwaale

Comment Response by EK & RH

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1.	Some of the chemicals that will be	
	used are dangerous to shellfish tha	
	are dwelling at the bottom of the	
	ocean.	

- 5. The proponents want to farm organically, the fish feed is the only thing that will go into the ocean.
- There are procedures that will be taken into consideration with regards to the feed that will be used.
- 7. The proponents will only use fish feed which has been approved by the Namibia Standard Institute (NSi) that they do not cause harm to other aquatic organisms. Thus no harm will be brought upon the shellfish or any other organisms that live at the bottom of the ocean.
- 8. Faeces accumulation in the ocean will be broken down into small nano-particles, therefore they will not have any effects on the shellfish species either.
- RH: Namibia is known to produce natural organic products. The fish will be naturally grown, through the health food programme no growth hormones will be allowed into Namibia.

9 Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources: Dr Kollet Grobler

Resources: Dr Kollet Grobler		
Comment & Question	Response: RH & AN	
 The Ministry of Agriculture, Water and Land Reform (MAWLR) will analyse the fish feed for the presence of any growth hormones. Why are the Proponents not considering site D? How will you control the issue of vaccinating the fish? 	 Yes that this correct; no fish feed will be permitted into Namibia that has not been certified and approved by MAWLR. The Proponents did not choose site D as there are still some ongoing Diamond mining activities in the proposed area; still too many pending restrictions; in addition Oranjemund has no harbour facilities AN: Vaccination of the fish is done at the quarantine facility 	

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(onshore) thus it will not have any
effect on other Marine species.

Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources: Ms Saima Kapia		
Question	Response EK	
1. What is the target market?	1. The target markets for Yellowtail	
2. Will the fish be exported as a whole	Kingfish is the Asian Market, for Silver Kob is Germany / USA and	
product?	Atlantic Salmon is both the local	
product.	and international market.	
3. Do you have any knowledge on the	2. The fish will be gutted and	
possible parasites that may occur in	exported whole and round initially	
the proposed fish species?	but value addition to the product is	
	being envisaged.	
	3. There are Acts & Regulations put	
	in place for importing fish into	
	Namibia. When importing	
	fingerlings or smolt the exporting	
	country needs to certify that they are pathogen free. Once the	
	fingerlings arrive at the point of	
	entry into Namibia, State Vets will	
	re analyse the fish; the smolt / fry	
	will then need to be placed in a	
	quarantine facility for at least a	
	month and then retested again.	

Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources: Ms Diina Mwaale Question Response (EK) 1. What will happen when the fingerlings contract diseases while they are put in cages? 1. Fingerlings when entering Namibia will be kept onshore in the quarantine facility and prior to deploying them to the offshore cages will be tested once more by the State Vets. Potential

Comments, Questions or Concerns Raised By: Ministry of Fisheries and Marine Resources: Mr Abner Amadhila		
Comment & Concern	Response (EK)	
 Lilongeni has put more emphasis on the mitigations but has not indicated how these mitigation factors will be addressed. Concern is that with the establishment of the mariculture farm this might end up disturbing the whole food web, there will be an in-balance in the food web of the aquatic ecosystems. 	 Comment noted and all impacts raised will be addressed accordingly. The fish cage culture will have no impact on the food web as the fish will be confined and fed. 	

Comments, Questions or Concerns Raised By: Lüderitz Town Council: Ms Brigitta					
Fredericks					
Comment		Response			
Thanked the	Proponents for choosing	Comments Noted			
Lüderitz.	6				
2. In support of	f the proposed finfish				
Mariculture	Farm as this will bring in				
needed job	opportunities to Lüderitz.				

Comment	Response		
1. Lüderitz community should appreciate the Proponents for travelling all the way to Lüderitz and for wanting to set up their Mariculture farm here. At most time investors complain that Lüderitz is too far from other towns.	Comments noted.		
Her company is in-support of the proposed Mariculture farm.			

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Comments, Questions or Concerns Raised By: Namport: Mr Abner Amadhila						
Comment	Response					
 Once the farm is up and running, Lilongeni Fish Farming (Pty) Ltd. to sell some of their fish products locally. Why have the proponents moved away from site B? 	 Ninety-five (95%) percent of the fish products will be for the export market, and 5% of the products will be sold locally. The Proponents do not want to swamp the local market or compete with the companies that supply the local market currently. Site B is not conducive for cage anchoring and due to the presence of sulphur eruptions it is not worth risking it with a project of such magnitude. 					

The chairperson thanked all participants for their openness, opinions, recommendations and constructive discussions.

9. CLOSURE: MEETING ADJOURNED AT: 11:30 HR

CONFIRMATION AND SIGN OFF:

Minutes Approved for Circulation: The minutes have been approved for circulation by the undersigned			Minutes Confirmed as True record of the Meeting held on the 23 rd of February 2021 at Lüderitz Nest Hotel.			
Chairperson	Designation	Signature	EAP	Designation	Signature	
Ms Aune Nantinda	Hangana Abalone		Dr Ekkehard Klingelhoeffer	Atlantic Consulting Services	E. Kligethy-	
Minute Taker			Other Member Present/ Witness			

Dr Team Ekkehard EAP Klingelho	ic Consulting	Signature E. Migelly	Chairperson Ms Aune Nantinda	Designation Director of Hangar Abalone Maricultu	na	nature
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Minute Taker			Other Member Pr	esent/ Witness		
Member's Desig Name	nation	Signature	Member's Name:	Designation	Sig	nature
nghenda Servic Kauluma Taker	cic Consulting ces -Minute of Experts	*	Ms Maria Shimhanda	Team of Experts		

Member	r's	Designation	Signature	Member's Name:	Designation	Signature
Name						
Ms		Atlantic				
Ndamor	ong	Consulting				
henda		Services				
Kaulum	a					
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