ENVIRONMENTAL MANAGEMENT PLAN (EMP) for 2026 to 2029

"THE NGUNI ZAMBEZI HOUSEBOAT (Pty) Ltd", ZAMBEZI REGION: APP 260322-007204

REQUEST for an ENVIRONMENTAL CLEARANCE CERTIFICATE (ECC)

The renowned Pangolin Voyager which operates on the eastern Chobe River, Zambezi Region

PROPONENT
Mr. Gerhardus Barend Swanepoel &
Mr. Tobias Ferrari Jermyn
Directors of The Nguni Zambezi
Houseboat (Pty) Ltd, P. O. Box 2333, Ngweze
Kasika Circuit, Zambezi Region
Registration: CC/2011/4130
Email: nakita@pangolinphoto.com
Cell no. +264 81 665 9598

ENVIRONMENTAL PRACTITIONER
Dr Ekkehard Klingelhoeffer
EAP - Consultant
Director of Atlantic Consulting Services cc
Kubu & Kwena, Plot No 18
Kaliembeza Village, Zambezi Region
Registration: CC/2021/03824
Email: ekkehardwk@gmail.com
Cell no. + 264 81 719 3939

Editor: Dr Marion Schramm

10 April 2026

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No. 4878 Government Gazette 6 February 2012 23

ANNEXURE 1
FORMS

Form 1

REPUBLIC OF NAMIBIA

ENVIRONMENTAL MANAGEMENT ACT, 2007

(Section 32)

APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATE

PART A: DETAILS OF APPLICANT

1. Name: (person or business)	The Nguni Zambezi Houseboat (Pty) Ltd
2. Business Registration / Identity No. (if applicable)	CC/2011/4130
3. Correspondence Address:	P. O. Box 2333, Ngweze, Katima Mulilo
4. Name of Contact Person:	Dr. Ekkehard Klingelhoeffer
5. Position of Contact Person:	EAP - Freelance Environmental Consultant
6. Telephone No.:	Cell no. + 264 81 719 3939
7. Fax No.:	N/A
8. E-mail Address : (if any)	Manager: nakita@pangolinphoto.com EAP: ekkehardwk@gmail.com

☐ Tick (☐) the appropriate box

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/0824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

PART B: SCOPE OF THE ENVIRONMENTAL CLEARANCE CERTIFICATE

1. The environmental clearance certificate is for:

☒ Request for revised/updated ECC which will elapse on 20 April 2026
☐
☐

2. Details of the activity(s) covered by the environmental clearance certificate:
Refer to the BID which was submitted on MEFT Portal on 22 March 2026
[Note: Please attach plans to show the location and scope of the designated activity(s), and use additional sheets if necessary:

Title of Activity: Tourism establishment on the Pangolin Voyager II
Nature of Activity: Photographic safaris on the Chobe River
Location of Activity: Between Impalila Island and Serondela Lodge, on Chobe River
Scale and Scope of Activity: To cater for max 10 guests on board PV II sailing upstream and downstream of the Chobe River, Zambezi Region

PART C: DECLARATION BY APPLICANT

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental clearance certificate may be suspended, amended or cancelled if any information given above is false, misleading, wrong or incomplete.

E. Klingelhoeffer — Ekkehard Klingelhoeffer — EAP
Signature of Applicant | Full Name in Block Letters | Position

on behalf of Proponent of The Nguni Zambezi Houseboat (Pty) Ltd 10 April 2026

This report has four sections:

- **Section 1: Overview of PV**
- **Section 2: Summary of current EMP of May 2022 in force (NYEPEZ cc) and observations on compliance**
- **Section 3: Potential impacts of activities and recommended mitigation: 2026-2029**
- **Section 4: Recommendations and conclusion**

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03624
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

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ACRONYMS

BID	Background Information Document
EAP	Environmental Assessment Practitioner
EC	Environmental Commissioner
ECC	Environmental Clearance Certificate
EMP	Environmental Management Plan
KM	Katima Mulilo
MAFWLR	Ministry of Agriculture, Fisheries, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
PV(I) & (II)	Pangolin Voyager (I) & (II)
TNZHB	The Nguni Zambezi Houseboat
ZEL	Zovu Elephant Lodge

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CONSULTING TEAM

No.	Name	Surname	Position	Email
1	Ekkehard	Klingelhoeffer	EAP	ekkehardwk@gmail.com
2	Marion	Schramm	Editor	namtours@iafrica.com.na

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03624
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

SUMMARY OVERVIEW
"The Nguni Zambezi Houseboat (Pty) Ltd" - PANGOLIN VOYAGER

Withdrawal of Pangolin Voyager (I) and replacement by Pangolin Voyager (II)

TOPIC	DISCUSSION
Old PV(1) replacement	Due to the ageing of PV(I) and the need for modernization, Edelstahlbau cc was contracted in 2024 to build a replacement boat also referred to as the Pangolin Voyager (II). The frames for the boat were built in Windhoek, transported to Katima Mulilo and put together on the Zambezi River at Katima Mulilo Bricks Company.
Proponent	In 2015, **Mr. Gerhardus Barend Swanepoel & Mr. Tobias Ferrari Jermyn**, both Directors of "The Nguni Zambezi Houseboat (Pty) Ltd" (TNZHB), established a tourism destination on the Chobe River, offering photographic safaris
JV Agreement with the Kasika and Kabulabula Conservancies	In December 2023 a **JV agreement** between "The Nguni Zambezi Houseboat (Pty) Ltd" and Kasika & Kabulabula Conservancies was signed. **(Doc 1).** This allows, as of July 2025, for the Pangolin Voyager, to moor at 2 sites on the northern embankment of the Chobe River **(Fig. 1 and 2)**
Lodge Locality & Operation ***Mooring (anchor) for Pangolin Voyager on the Chobe River***	The PV operates with guests between Impalila Island and upstream to Kabulabula Conservency. Due to ***COVID 19***, as with all other lodges, tourism came to a standstill and guest numbers only picked up as of January 2023 ***Kasika Conservancy: mooring site 1*** **Latitude South 17.83000** **Longitude East 25.10114** ***Kabulabula Conservancy: mooring site 2*** **Latitude South 17.84083** **Longitude East 25.00097**
EMP of May 2022 in force ***ECC issued April 2023***	**NYEPEZ Consultants cc** compiled the EMP and submitted their report in May 2022. This EMP provides detailed and comprehensive instructions to the Proponent in the management of the PV(I) boat on the Chobe River. The EMP of November 2018, submitted by the consultants that is still in force, is meticulously being implemented by the Proponent and his management. Following the submission of the EMP in May 2022 for review by the EC office of MEFT, **an <u>ECC was issued</u>** to TNZHB on 21 April 2023 **(Doc 2).**

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

TOPIC	DISCUSSION
APP No. and Verification/screening Report	On ***22 March 2026*** the EAP registered the revised/updated EMP for TNZHB (Pty) Ltd and received an **APP No 260322-007204** (**Doc. 5**) On ***12 January 2026*** the EAP received the **Verification/Screening report** from EC office indicating instructions regarding EMP (**Doc. 6**) to be revised.
Revised & updated EMP ***EAP appointment***	The Proponent is aware of **having defaulted in submitting bi-annual reports** as per condition C4: No 14 of the ECC issued on 21 April 2023 (**Doc. 3**). However, the Proponent is committed to rectify this omission and has therefore **appointed EAP Klingelhoeffer** (**Doc. 4**) to prepare a revised and updated EMP based on onsite visits, emails and discussions with the manager of PV(I) and P(VII)
Organic food waste / Leftovers	Leftover food is taken to the Pole Pole compost heap where the Proponet has established a vegetable garden; fresh vegetables are supplied to the PV (II)
Findings: Compliance with EMP report of 2022	The EMP to be submitted following this BID report will include the current status of both the PV(I) and PV(II) and focus on the operation of PV(II) on the Chobe River
Electrical energy sources	PV(II)has opted to be ***self-reliant with electricity,*** which is a further positive step towards running an eco-friendly hospitality operation. Solar energy powers the entire PV with 100kW. A backup generator of kW 50 is also in place
Personnel	Staff employed predominantly ***from adjacent villages*** of Kasika and Impalila Conservancies; total 13 crew employed on board PV
Cabins on board the Pangolin Voyager	Includes: 5 en-suite rooms for guests, kitchen, dining area, lounge and deck, wheelhouse, storerooms, 2x rooms for staff
Waste management: Water grey & black effluent discharge	Grey and black water is fed through a sophisticated and efficient **septic tank digester system on board the PV**. Every 2 days or every day as needed, the effluent is emptied to a receiver boat which transports the grey/black water to Zovu Elephant Lodge (ZEL) where it is further treated prior discharge. Details of the process are provided in the revised and updated EMP Section 3

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

TOPIC	**DISCUSSION**
"Best practices" regarding waste management	It is being implemented by management and PV crew to: ➢ **avoid, minimize or remedy** adverse impacts to the environment ➢ enhance the environmental and social benefits ➢ ensure that residual adverse impacts are kept within acceptable levels
Licenses with MAFWLR	Licenses for the ***water abstraction*** from the Chobe River and the ***effluent discharge*** are being prepared by the EAP to be submitted to the relevant authority at MAFWLR. These license applications are being processed by the Department of Water Affairs at the Ministry of Agriculture, Fisheries, Water and Land Reform as per ECC Condition C3: No 4 (**Doc. 3**)
Pangolin Voyager (I)	**Permanently anchored** at Pole Pole and used for storage of goods for PV(II) and staff accommodation as need arises
Findings: EMP Report	This **EMP Report** is ***based on a site meeting*** with the skipper including e-mail exchange with the manager to familiarize oneself with the day-to-day activities on board the PV, to determine potential impacts and to provide recommendations for mitigation where necessary
In summary	It is evident that the current **EMP in force is meticulously being implemented** by the Proponents, manager and crew. The PV provides 5 en-suite rooms facing the Chobe River. The focus of the PV is to offer photographic safaris to its guests. On board there is a dedicated room referred to as the "Photo-editing room" where guests are being guided by an expert on how they can enhance their photo images
Declaration Form	***AI was not used*** to compile or generate this EMP Report **(Doc 7)**. The EMP of May 2022 by NYEPEZ cc Consultants, Windhoek, was consulted and updated regarding pages 21-25: "ASSESSMENT OF ENVIRONMENTAL ASPECTS AND PROPOSED MITIGATION MEASURES".

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

SECTION 1: OVERVIEW of the PANGOLIN VOYAGER

Operation of a boat on the Chobe River named Pangolin Voyager by "The Nguni Zambezi Houseboat (Pty) Ltd", alongside Kasika and Kabulabula Conservancies of the Chobe River

1.1 Proponent, EAP appointed, ECC issued, EMP in force, PV(I) & PV(II) operation, JV

The Background Information Document (BID) submitted provided the EC of MEFT with a brief overview of the operation of PV(1) and PV(II). Based on the BID, the application was screened and verified upon which an APP No. was allocated (**Doc. 5** attached) and clear instructions provided as to which documents should be included in the EMP (**Doc. 6** attached).**The focus of this EMP expands on the current operation of the PV(II)** and its potential impacts on the environment with appropriate mitigation recommendations.

1.1.1 Proponent, Ownership and Manager of PV (I) & PV(II) of TNZHB

NAME	POSITION
Mr. Gerhardus Barend Swanepoel	**Proponent & owner**
Mr. Tobias Ferrari Jermyn	**Proponent & owner**
Ms. Nakita Visagie	**Manager**

1.1.2 Appointment of EAP and ECC issued

CURRENT STATUS	DISCUSSION
ECC to elapse	The ECC issued by the EC office of MEFT in April 2023, will elapse on 20 April 2026 (**Doc 2**).
EAP appointment	Subsequently, the proponents timely appointed Dr. Ekkehard Klingelhoeffer as the EAP on 16 February 2026 **(Doc 4)**.
EAP role & function	The function of the EAP was to formally apply for the renewal of the current Environmental Clearance Certificate (ECC) and to revise and update the current EMP in force for PV (II)
Water abstraction effluent discharge license	The EAP was requested to assist in the license applications for *water abstraction* from the Chobe River and the *discharge of effluent* with the Department of Water Affairs of MAFWLR

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03624
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

1.1.3 EMP and ECC in force

Background to:	DISCUSSION
ECC of 20 November 2018	The EC office of MEFT issued an ECC to "The Nguni Zambezi Houseboat (Pty) Ltd" on the Chobe River t/a Pangolin Voyager (I); this enabled the proponent to operate its boat on the Chobe River with the PV(I) which is registered in Namibia.
COVID 19	This ECC elapsed in November 2021; however, it was not immediately renewed due to the COVID 19 epidemic; business closed as was the case with all other tourist operations in the region. In January 2023 lodges in the vicinity were again permitted to open their doors to the public. However, it took 12 months for the tourism industry in Namibia to revive, and tourist numbers only increased significantly as of January 2024.
Revised EMP May 2022	At the beginning of 2022, **NYEPEZ cc Consultants** was commissioned to revise and update the EMP report in force and apply for the renewal of the ECC; the EMP was submitted on 18 May 2022 and is still in force.
New ECC 2023	On 21 April 2023, the EC office of MEFT issued an ECC to TNZHB **(Doc 2** attached**)** with clear conditions for compliance: Sections C3 and C4 (**Doc 3**). It is to be noted that not all conditions were met, which will be addressed in Section 2 of this revised and updated EMP.

1.1.4 Pangolin Voyager

ITEM	DISCUSSION
New PV(II) sails to Chobe River	On July 8, 2025, the new PV (II) was completed at Katima Mulilo and, on the 9 July 2025, sailed down the Zambezi River via the Kasai Channel and arrived at the Chobe River on 11 July 2025.
First guests on new PV	On 12 July 2025 the first guests were received for their photographic safari.
Anchor (mooring)	The Pangolin Voyager is mostly anchored on the northern banks of the Chobe River in the close proximity to the Kasane Immigration (Botswana) (**Fig. 1&2**).
Area of Operation	The PV operates between Impalila Island and Serondela Lodge (**Fig. 2**) The Kasai Channel which leads to the Zambezi River is traversed at times (**Fig. 2**).
Pangolin Voyager (II)	It is a replica of the old PV(I), however, stylish en-suite cabins and a modern upper deck have been installed. The wheelhouse is fitted with the latest navigation technology and the sewage system on board compares well to acceptable standards.

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ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

1.1.5 EAP site visit

SITE VISIT	OBSERVATIONS MADE
EAP visit to the PV	During the visit in March 2026, the EAP observed that the boat offers 5-star hospitality in a relaxed atmosphere. The sophisticated ambience on the Pangolin Voyager invites guests to enjoy their vacation in a friendly and conducive eco-environment. From the deck of the boat, the Chobe River can be viewed with elephants, buffalo and lechwe grazing in the background.

1.1.6 Joint Venture Agreement between "The Nguni Zambezi Houseboat (Pty) Ltd" and Kasika Conservancy and Kabulabula Conservancy

ITEM	DISCUSSION/OUTCOMES
JV Agreement with: Kasika and Kabulabula Conservancies (10 year agreement)	In December 2023 a JV agreement between TNZHB and Kasika & Kabulabula Conservancies was signed **(Doc 1).** This allows, as of July 2025, for the PV to moor at 2 sites on the northern embankment of the Chobe River **(Fig. 1 & 2).**
Boat operation on the Chobe River	The PV operates in most cases between Impalila Island and Serondela Lodge (**Fig. 2**), Zambezi Region.

1.1.7 The "Nguni Zambezi Houseboat (Pty) Ltd" offers an *array of activities* to the guests which include:

ACTIVITY	DESCRIPTION
Boat cruises on the Chobe River	• Game viewing cruises up and downstream of the river
Photographic safaris	• By professional guides with smaller boats (**Fig. 7**) that can enter shallow waters to get closer to the wildlife
Editing of pictures on board the Pangolin Voyager	• After photoshoots guests meet in the editing room to enhance their pictures and discuss quality and improvements (**Fig. 8**)
Relax on the deck	• On the upper deck at the stern of the boat an area has been set aside where guests can sit and enjoy a 180-degree view of the Chobe floodplain (**Fig. 3**)

1.1.8 Background Information document

BID submitted on 22 March 2026	The BID submitted needs to be consulted together with this EMP and the EMP of May 2022.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

1.1.9 EMP April 2026: Submission

New EMP: April 2026 to March 2029	This EMP is based on a visit to the PV in March 2026, including correspondence by email, WhatsApp and phone calls to the manager. In addition, the EAP was guided by: i) Waste Management Policy of 2018 (MEFT) ii) Guide of 2018 to the EMP Act No 7 of 2007 iii) EMP of May 2022 by NYEPEZ cc Consultants

1.1.10 Operation of the Pangolin Voyager

PANGOLIN VOYAGER	DISCUSSION and MOORING
Pangolin Voyager (I)	***Permanent*** *mooring at Pole Pole* (**Fig. 1&2**) ➢ Latitude south: 17.80500 ➢ Longitude east:25.13463 *Function:* accommodation for crew off duty and storage of supplies
Pangolin Voyager (II)	*Sailing upstream and downstream of the Chobe River* (**Fig. 1**) Mooring at Kasika Conservancy: overnight & receiving of guests Mooring at Kabulabula Conservancy: overnight *Function:* operation of a 5-star facility for guests on photographic safaris

1.2 Locality

The PV is mostly anchored at **2 sites** on the northern banks of the Chobe River (**Fig. 2**). The area lies in a floodplain and is surrounded by grass, sedges and reeds along the riverbanks. The boat can be reached with ferry boats from Kasane Immigration, Botswana (**Fig. 2**).

The area of operation of the PV is upstream to Serondela Lodge (**Fig. 1**) where it has a mooring (anchor) station at Kabulabula Conservancy and downstream all along the Kasai Channel to the Zambezi River (**Fig. 2**). The other mooring (anchor) station is at the Kasika Conservancy.

Coordinates for the PV anchor (mooring positions) are as follows with a footprint expressed in ha where the *boat is anchored to 2 iron posts on land* (**Fig. 4**):

Location (mooring)	LATITUDE (South)	LONGITUDE (East)	AREA (ha)
Kasika Conservancy	17.83000	25.10114	<1
Kabulabula Conservancy	17.84083	25.00097	<1

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

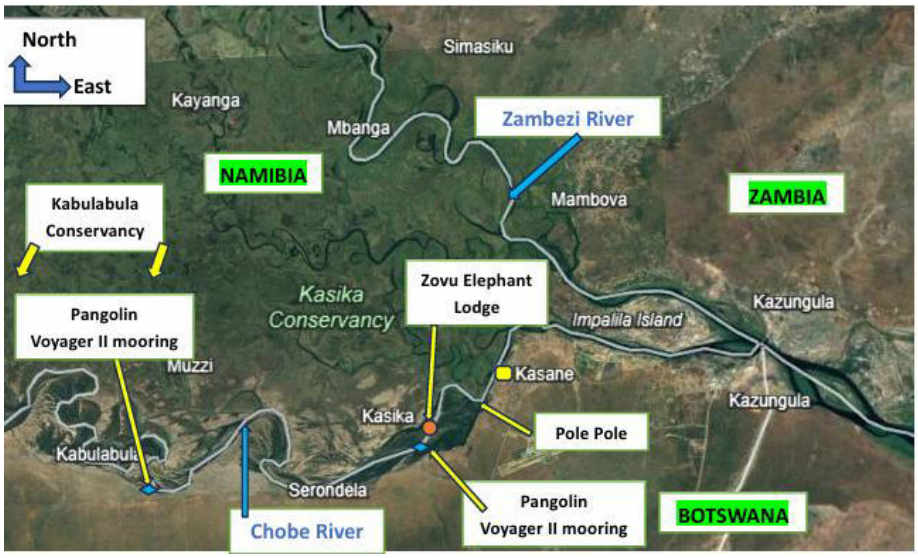

Figure 1: The mooring locations for the Pangolin Voyager on the northern banks of the Chobe River (google earth maps)
(= Kasane Immigration) = the 2 mooring sites (anchor) for PV

Figure 2: Satellite image indicating the location of Kasika & Kabulabula Conservancy, and the Kasai Channel joining both the Chobe and Zambezi Rivers with each other.

Kasai Channel Kasika Immigration (NAM) Impalila Immigration (NAM)
= Pangolin Voyager (II) anchor sites = Pangolin Voyager (I) permanent anchor

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PV offers guests with exquisite facilities on the upper deck **(Fig. 3)** with a constant view of the Chobe National Park**.**

Figure 3: The bow (front) outside deck of the PV with a 180-degree view on the Chobe floodplains with buffalo grazing in the background.

At the 2 mooring sites for the PV, two iron poles (**Fig. 4**) have been secured on land for which "The Nguni Zambezi Houseboat (Pty) Ltd" has a JV Agreement with Kasika and Kabulabula conservancies (**Doc. 1 attached).**

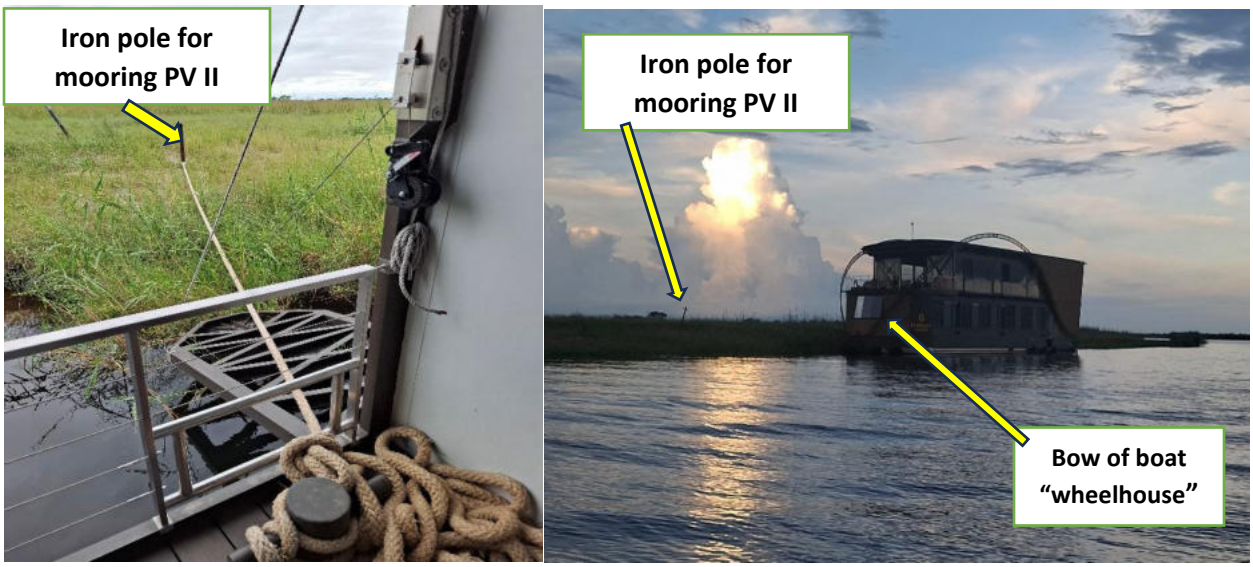

Figure 4: Mooring anchor at Kasika Conservancy for PV when not sailing.

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03624
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Figure 5: The wheelhouse for the PV at the bow of the boat with a 180-degree view.

Table 1 provides GPS in degree decimals for the main locations relevant to the operation of PV

TABLE 1: GPS in degree decimals of the main locations where "The Nguni Zambezi Houseboat (Pty) Ltd" operates on the Chobe River (Namibia).

LOCATION	LATITUDE S0UTH	LONGITUDE EAST	METER
Serondela Lodge	17.83583	25.00064	938.48
Kabulabula Mooring for PV	17.83333	25.96703	940.92
Kasika Mooring for PV	17.83000	25.10114	928.12
Kasai Channel exit from CR	17.78111	25.15114	926.59
Kasai Channel enter to ZR	17.74889	25.15094	929.64
Kasika Immigration (NAM)	17.80944	25.11733	931.47
Impalila Island Immigration (NAM)	17.77611	25.15119	934.52
Kasane Immigration (Botswana)	17.79722	25.15031	936.04
Pole Pole	17.80722	25.13463	943.05
Mooring: anchor PV (1) next to Pole Pole	17.80500	25.13447	937.87
Zovu Elephant Lodge	17.80833	25.11744	927.81

Meter = above sea-level CR = Chobe River and ZR = Zambezi River

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DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

1.3 Design and layout of the Pangolin Voyager

The cabin layout on board the PV is provided in **Table 2,** and schematically presented in **Fig. 6a and Fig. 6b** with a focus on the location of the sewage waste system in the hull of the boat.

TABLE 2: Cabin layout on board the Pangolin Voyager

Infrastructure	Layout & n umber	Description
Wheelhouse	Navigation, engine controls, acoustics, screen monitors (**Fig. 5**)	Compact with good visibility in the front bow on lower deck Advanced technology in place
Dining area, lounge and deck	Open plan dining area with lounge and a deck at the bow of the boat	On upper deck with view over the Chobe floodplains (Fig. 8)
Kitchen/Freezer/Food storage		Spacious layout and functional
Guest accommodation	5 en-suite rooms	On the lower deck all with a river view
Manager office	Between kitchen and dining room	Tiny space on upper deck
Staff accommodation for: ➢ **Men** ➢ **Ladies**	 1 sleeping quarter 1 sleeping quarter	 ➢ 3 double bunks ➢ 2 double bunks
Solar panels & generator	Solar panels on roof Generator at rear end of boat	Output: Solar (100kW) and generator (50kW)
Waste disposal	Solid waste	Removed daily
Waste disposal	Grey and black water (mix)	Extracted every 2nd day and taken to ZEL where it is fed into the sewage treatment system (**Fig. 9, 10, 11, 12**)

1.4 Allocation of APP number for "The Nguni Zambezi Houseboat (Pty) Ltd"

ITEM	DATE
BID submitted	22 March 26
APP No. 260322-007204 issued	22 March 26

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

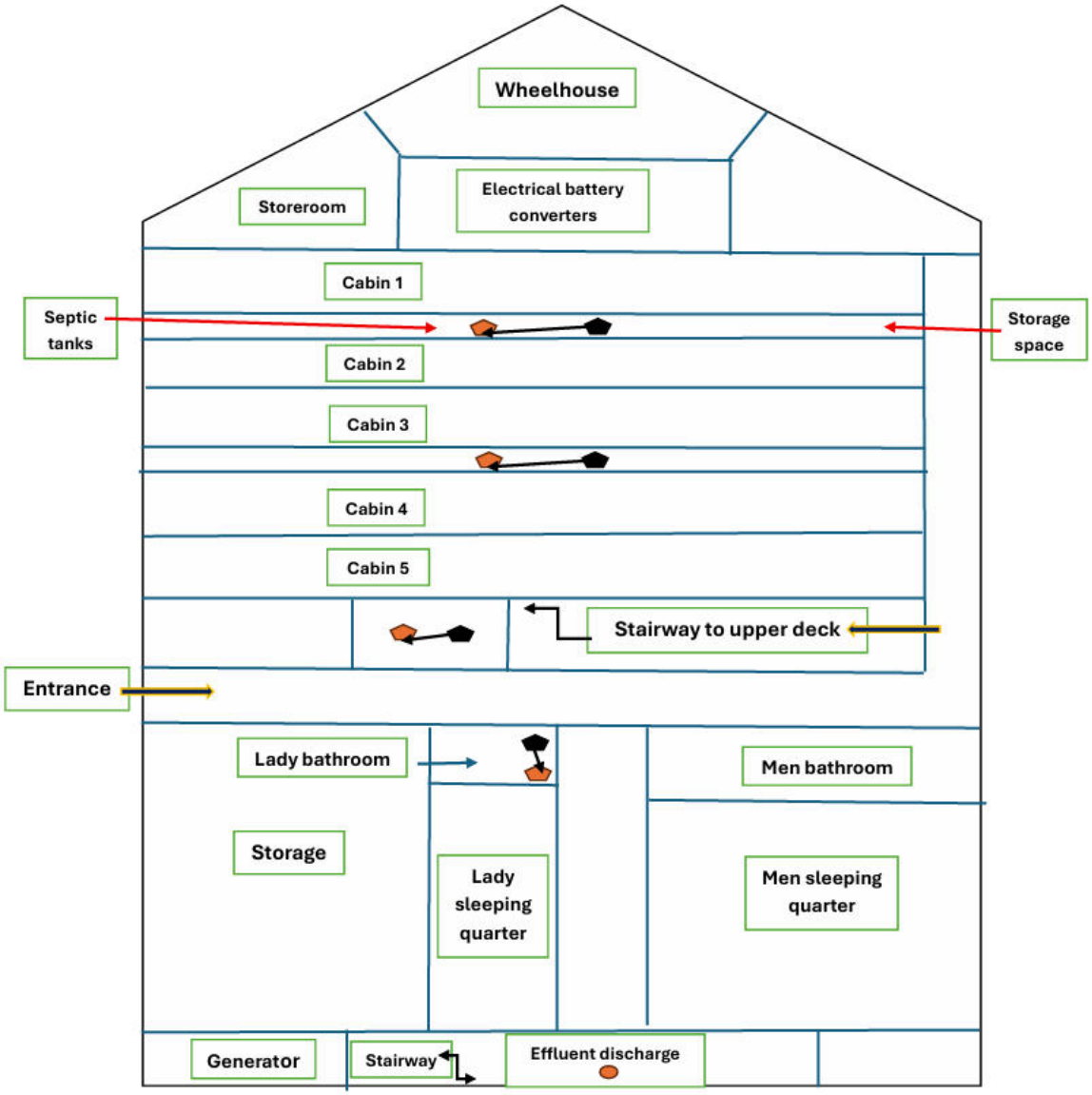

Figure 6a: Layout of compartments on the *lower deck* of the PV

= septic tanks for black and grey water in the "hull"

= for black water and = for grey water (mix)

Note: septic tanks are positioned below deck in hull cavity of the boat

Note: an oxygen pump is fitted to the black water septic tank to enhance aerobic respiration thus speeding up the process of breakdown of sewage

= discharge point of wastewater (collected every 2nd day by ZEL boat) (Fig. 10)

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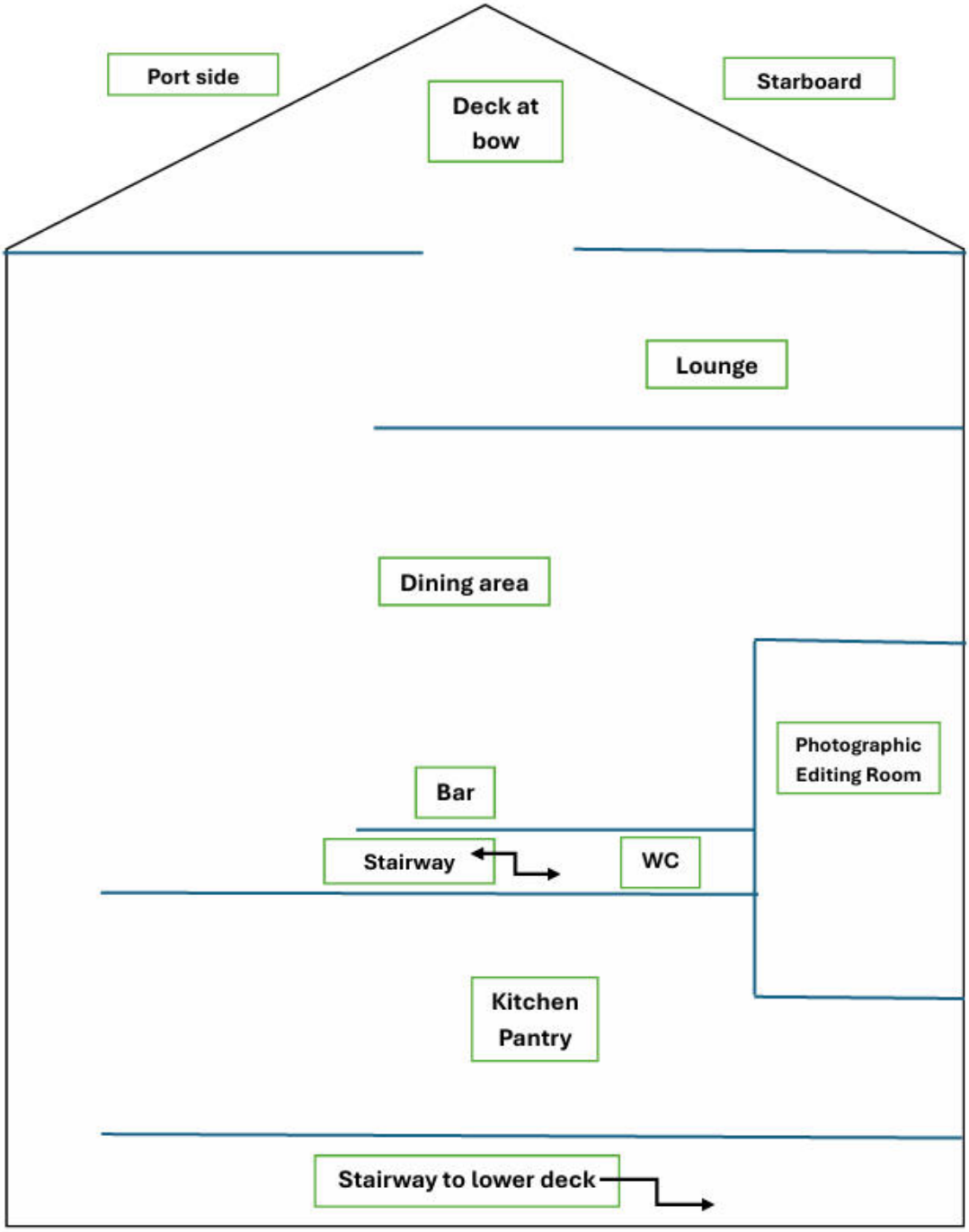

Figure 6b: Layout of compartments on the *upper deck* of the PV

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1.5 Screening, verification notification and instructions

On 22 March 2026 the verification report (**Doc. 6**) for the Pangolin Voyager was received. The instructions provided by the EC office **(Doc. 6)** took the following aspects into consideration:

- Location of the establishment
- Pollution potential (soil/water)
- Scale of the operation of tourism offered

Instructions from EC office on documents and reports to be uploaded:

No.	INSTRUCTIONS: DOCUMENTS TO ATTACH	OUTPUT
i)	An updated EMP to effect amendment	EMP Report, Apr 26
ii)	Confirmation of screening notice received in terms of assessment (Section 35 (1) (a) (b) of the Environmental Management Act	Doc 5 of EMP
iii)	Site map with coordinates (degree decimals) and a legend	Directly onto Portal
iv)	CV of the Environmental Assessment Practitioner (EAP)	Doc 8 of EMP
v)	Consent or proof of consultation from Parks/ **Conservancy Management**	Doc 1 of EMP: JVA
vi)	Proof of written notice to the local authority council, regional council and traditional authority, in which the site or alternative site is situated;	Superseded by Conservancy
vii)	Upload proof of payment (Revenue Stamps)	Directly onto Portal

NOTE: ***Point v)*** above: Telephonic discussions were conducted with both the newly appointed managers of Kasika Conservancy and Kabulabula Conservancy, regarding the operation of the PV in the above 2 conservancies. It was to determine whether the objectives and compliance of the JV Agreements were being achieved and adhered to.

JV Committee for Kasika Conservancy	**Chairperson:** Mr. Leonard Malumbwa: cell no. 081 828 9300 **Enterprise officer:** Hassen Nyambe **Secretary:** Sancter Mutende **Feedback:** The Proponent complies with the JV Agreement; all meetings are being attended; the Committee is satisfied with the PV operation
JV Committee for Kasika Conservancy	**Chairperson:** Mr. Colbert Lubasi: cell no. 081 204 2421 **Enterprise officer:** Mr. Felix Lisita **Secretary:** Mary Mafwila **Feedback:** Similar comments received from the chairperson above i.e. the Proponent complies with the JV Agreement; all meetings are being attended; the Committee is satisfied with the PV operation on the Chobe River

Point vi) above, is governed and administered by the Management Committees of the 2 registered Conservancies through the JV agreement between them and the proponent.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

In addition, the **reports and forms** that need to be completed and loaded **onto MEFT portal** are:

i)	EMP of May 2022 by NYEPEZ cc Consultants (summary on mitigation)
ii)	Copy of previous ECC issued in terms of Section 37 (1) (a) of EMA
iii)	BID (Background Information Document) of 22 March 2026
iv)	To compile a final report and to prepare 3 bound copies (EC office, Proponent, EAP)
v)	To load all information as per above requests onto the MEFT portal for final verification and review
vi)	Declaration for the Submission of Assessment Reports and other support documents (upload Declaration Form)

1.6 Purpose of Background Information Document (BID)

The BID, dated 22 March 2026, serves to provide the EC office of MEFT, with information on background information on the operation of the PV relating to: the APP number issued was based on this BID.

- **Locality**
- **Activities, Proponent, Staffing, Vision**
- **Environmental Assessment Practitioner (EAP)**
- **Infrastructure of the Pangolin Voyager and activities offered**
- **Current ECC and EMP in force**
- **Disposal strategies for solid, grey and black water waste**
- **Tourism status in the Zambezi Region: KAZA TFCA**
- **Application for APP No. on MEFT Portal**

1.7 Activities offered

The PV is operating as a tourism entity catering mainly for tourists from abroad. The focus of the company is to provide the tourists with unique wildlife experience within the KAZA TFCA, including:

No.	ACTIVITIES OFFERED
1	Boat cruises in shallow waters of the Chobe River with focus on photography (**Fig. 7**)
2	Photo editing and training onboard the PV **(Fig. 8**)
3	Bird watching and photography (490 species recorded in the Zambezi & Kavango Regions)

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Figure 7: Small boat equipped with photographic equipment enables guests to get closer to shallow waters (courtesy web page of Pangolin Voyager Photo Safaris)

After the photo shoots, guests return to the PV and meet in the "Editing Room" (**Fig. 8**) of the upper deck to receive additional guidance in editing their pictures.

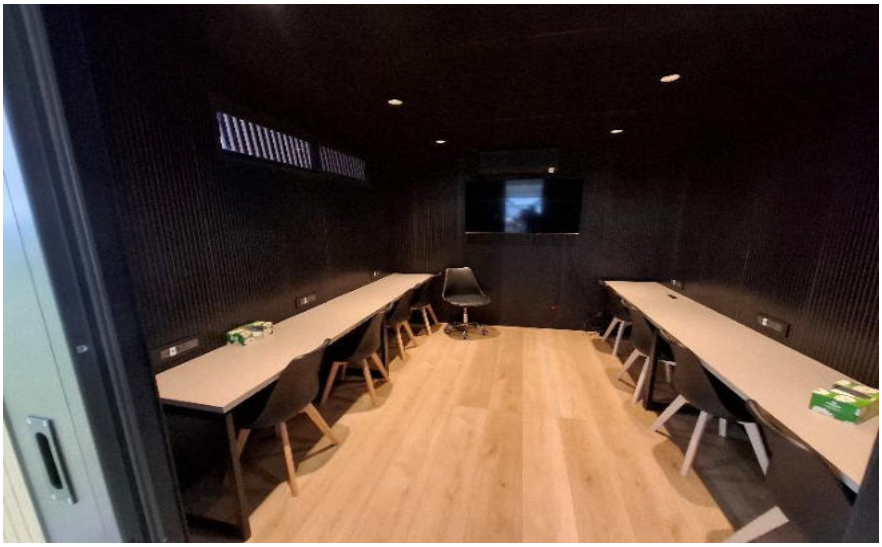

Figure 8: Photo editing room on the upper deck of the Pangolin Voyager

1.8 Staff complement

The PV mainly employs staff from adjacent villages (**Table 3**), which includes the following departments/positions:

- Management; skipper; kitchen (chef and assistant); housekeeping; waiters; guides.
- Total staff employed: 13

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

TABLE 3: Full-time staff employed per gender and region

DEPARTMENT	MALE	FEMALE	REGION
Manager	0	1	Zambezi Region
Skipper	2	0	Zambezi Region
Deckhand/guide	1	0	Zambezi Region
Kitchen chef and assistant	0	2	Zambezi Region
Dining area waiters	2	0	Zambezi Region
Housekeeping	3	0	Zambezi Region
Staff always on days off	1	1	Zambezi Region
TOTAL	9	4	13

1.9 EMP objectives

The action verbs regarding waste management on board the PV include:	To reduce To reuse To recycle

1.9.1 ***Policies, procedures and practices*** that assist organizations to manage and to reduce their impact on the environment are in place (**Table 4**).

TABLE 4: Policy, Acts and Regulations that the Proponent needs to comply with for a tourist operation.

No.	POLICY/ACT/REGULATION	ACTIVITY: CAUSE & EFFECT
1 2	EMP Act 2007 (Act No. 7 of 2007 Regulation 29 of 2012 (EMP)	 Day-to-day management
3 4	Water Resources Act of 2013 and Water Resources Regulation of 2023	Water abstraction (borehole and surface water) and discharge of effluent
8	6th NDP & Vision 2030	Promote the tourism industry on Namibia
9	National Policy on Tourism of Namibia	Guidelines for tourism operation

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

1.9.2 An ***EMP is to:***

- Provide a description of the methods and procedures for mitigating and monitoring impacts.
- Contain environmental objectives and targets which the Proponent needs to achieve to reduce or eliminate negative impacts.
- Provide a structured approach to identify, evaluate and mitigate environmental impacts
- It is to be seen as a *living document,* to be used throughout the day-to-day operation of the lodge for which the ECC has been issued

1.9.3 The ***objective*** of this Environmental Management Plan is to ***formulate measures***, which will:

- Mitigate adverse impacts on various environmental components,
- Protect environmental resources where possible,
- Enhance the value of environmental components where possible
- Contribute to the socio-economic upliftment of the community

1.9.4 The steps of an Environmental Management Plan that the Proponent needs to follow and adhere must include:

- Commitment, Planning, Implementation, Evaluation and Review

In this Environmental Management Plan (EMP), the mitigation principles focus on:

- avoiding, minimizing, or compensating for negative environmental impacts arising from an activity, through measures like reducing pollution, conserving resources, and restoring ecosystems.

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DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

SECTION 2: CURRENT EMP IN FORCE and OBSERVATIONS MADE (COMPLIANCE) DURING SITE VISIT IN MARCH 2026

2.1 EMP of 2022 in force

ITEM	DESCRIPTION
EMP in Force	The EMP of May 2022 in force, titled "UPDATED ENVIRONMENTAL MANAGEMENT PLAN (UEMP) FOR THE EXISTING AND OPERATIONAL NGUNI HOUSEBOAT (PANGOLIN VOYAGER HOUSEBOAT) IN KASIKA COMMUNAL AREA OF ZAMBEZI REGION" was submitted to the EC office of MEFT by the NYEPEZ cc Consultancy.
ECC	Based on the above EMP report, the Environmental Clearance Certificate (ECC) was subsequently issued on 21 April 2023 **(Doc 2)** which will elapse on 21 April 2026.
Methodology and current EMP in force (compliance)	• The EMP submitted by NYEPEZ cc Consultancy was used as a baseline & compared to the current observations made by the EAP • The EMP submitted is very comprehensive and provides clear instructions as what the Proponent had to comply with. • This updated EMP focus is to determine compliance and noncompliance accordingly as per investigation in March 2026 (**Table 8**). • Furthermore, the ECC conditions dated 21 April 2023, have been tabulated and based on observations made, to determine whether the Proponent complied with as per Policy and Legal Framework of GRN (**Table 5**). • **Table 6** provides a summary of the main points addressed in the EMP report of May 2022, and findings made by the EAP regarding compliance in March 2026

The EMP by NYEPEZ cc laid focus **on crew training, socio-economic, minimize impacts on water resources, waste management, and conservation** related aspects (**Table 6)**. In summary the concerns identified by NYEPEZ cc Consultants can be summed up as follows:

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03624
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

i)	Training for staff on the objectives of an EMP and its implementation
ii)	Roles and responsibilities of crew
iii)	Socio-economic benefits: joint venture related issues
iv)	Minimize impacts on water resources
v)	Avoid water pollution

2.2 Compliance

The Conditions issued by the EC office regarding the ECC dated 21 April 2023, were reviewed to determine whether the Proponent complied (**Table 5**).

TABLE 5: Compliance on Conditions laid down by the EC of ECC issued on 21 April 2023 (observations made by EAP Klingelhoeffer, in March 2026).

CONDITIONS	TARGET	Condition No.	ASPECT FOCUS	Proponent COMPLIANCE
C1	Approval by MEFT on conditions	1	Is a credible EMP of 2024 in force? Proponent responsible	EMP in force is well structured and seen as a living document which is regularly consulted to ensure that the PV adheres to directives
		2	MEFT can add conditions	Proponent takes note of clause 2
		3	Monitoring & evaluation an ongoing process	Manager keeps track daily on infrastructure functioning to ensure no water pollution takes place
C2	ECC validity	1	ECC valid for 3 years	Proponent is aware of
		2	Renew ECC timely	Taken note of
		3	Failure to renew ECC lead to permanent termination	Proponent is aware of its consequences

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CONDITIONS	TARGET	Condition No.	ASPECT FOCUS	Proponent COMPLIANCE
C3	Compliance with other Ministries	4	e.g. licenses for water abstraction (from Chobe River) and the discharge of effluent	**Not undertaken.** The EAP to assist the proponent to achieve set objectives i.e. to forward applications to MAFWLR
C4	Implementation & Monitoring	5	ECC & EMP legally binding	Proponent is aware of the need for compliance
		6	**Appointing an environmental control officer / EAP**	Management staff are the eyes and ears EAP has been appointed
		7	ECC to be visible at reception (on deck)	Not visible
		8	Heritage remains to report to NHC	N/A
C4		9	Rehab program due to closure	Proponent has no intention to close down; tourism potential is high in this region
C4		10	MEFT to approve rehab	N/A
		11	MEFT and registered I&AP conduct inspections	Proponent is aware of spot inspections; Note: only registered I&AP permitted on site
		12	Any new projects to be communicated to EC office for approval	No new projects: tourism (Photographic Safaris) is still the focus;
		13	EC officials to show ID	Proponent takes note
C4	Implementation & Monitoring	14	**Bi-annual reports submission**	**Not undertaken.** The Proponent is aware of the neglect but strives to rectify by contracting the EAP Klingelhoeffer

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

CONDITIONS	TARGET	Condition No.	ASPECT FOCUS	Proponent COMPLIANCE
C4		15	Changes (12) to be forwarded through amendment form to EC	Noted by the Proponent; however, no changes envisaged; still operate as a hospitality operation
C4		16	Amendment of operation to be clearly stated to EC	No amendments were requested
		17	Non-compliance –fines	Proponent is aware of Clause 17

EMP* of May 2022 *currently in force:

"ASSESSMENT OF ENVIRONMENTAL ASPECTS AND PROPOSED MITIGATION MEASURES TO BE PERFORMED BY THE CONTRACTOR AND PROPONENT DURING ALL PHASES OF THE PROJECT (NGUNI ZAMBEZI HOUSEBOAT CC)"

Compiled by NYEZEPO cc Consultants in May 2022, Pages 21 - 25

Quote as appears on Page 21, (Table), by NYEPEZ in May 2022 EMP Report: "An environmental review for the operations of the houseboat is and/or has been completed to identify all the commitments and agreements made within the EIA report. From this, a schedule of environmental commitments and risks has been produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment".

The main activities identified by NYEPEZ cc Consultants in May 2022, are summarized in **Table 6.** During the site inspection it was to determine whether compliance by the Proponent was achieved regarding the listed activities.

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

TABLE 6: EMP of MAY 2022 in force: an update on compliance based on observations made in March 2026

No.	ACTIVITY	RISKS & POTENTIAL IMPACTS	MANAGEMENT & MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY	COMPLIANCE Mar-26
1	**Refueling PV, auxiliary boat and generator**	Spillage of fuel, oils & lubricants	Activity undertaken by qualified person Spill kits available Use of dip trays during the transfer	Monitor fuel use daily	Houseboat manager and crew	Manager and crew are well trained and execute their responsibly
2	**Operations of mechanical equipment and engines**	Spillage of fuel, oils & lubricants Leakages	Clear spills immediately	Daily checks Monthly detail checks/service	Houseboat manager and crew	Skippers and crew are trained to act immediately in case of emergency Professional assistance available at Kasane in an emergency
3	**Increased tourism:** PV more active on the Chobe River	Noise factor: engines and guests/crew activities To close to animals: HWC	No loud music Turn off engines when not sailing. No engine idling. Rely on solar panels & not the generator. Keep safe distance to animals No provocation to wildlife	Daily checks	Manager and crew	Skipper and crew ensure that all adhere to listed mitigation The guest & environment are FIRST No records on "bad conduct" by PV received. Ongoing environmental awareness to the crew

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	RISKS & POTENTIAL IMPACTS	MANAGEMENT & MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY	COMPLIANCE Mar-26
4	**Water abstraction from Chobe River**	Excessive water usage Reduction in water quality	Test water annually to ensure it is appropriate for consumption Crew and guests informed to use water wisely Check for leaking pipes	Annually At staff meetings Daily	Houseboat manager and crew	**Note:** water from river not used for consumption
5	**Sewage production & disposal (black water)**	Sewage waste treatment plant onboard houseboat Potential leakage can lead to water pollution Flora and fauna affected	Regular water samples taken to ensure the treated water quality comply to prescribed standards	Daily	Houseboat manager and crew	**Note:** all sewage waste is removed from the PV and treated at Zovu Elephant Lodge.
6	**Production & disposal of grey water: shower & kitchen**	Use of chemicals degrade water quality Effect on river fauna and flora	Water is treated prior the discharge into the river Check for leaking pipes	Daily	Houseboat manager and crew	**Note:** No wastewater is discharged into the river All wastewater removed from PV and taken to ZEL for further treatment

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	RISKS & POTENTIAL IMPACTS	MANAGEMENT & MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY	COMPLIANCE Mar-26
7	More trips during peak tourist season	Excessive energy usage Excessive water usage	Ensure solar panels provide maximum output Awareness campaign to ensure water use is mini-mized			Solar panels checked and kept clean Message to all: be water wise
8	PV maintenance & renovations	Waste entering the aquatic environment (paint, oils, etc.) Any other residual renovation waste entering the aquatic	Spill kits on board Collections bins at strategic places on the PV All waste to be removed from PV	Daily and weekly	Houseboat manager and crew	ALL waste is removed from PV The houseboat is new and zero maintenance at this stage

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	RISKS & POTENTIAL IMPACTS	MANAGEMENT & MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY	COMPLIANCE Mar-26
9	Lighting from PV	Artificial lighting effects insect and other wildlife. Possible to disturb social behaviour and feeding of frogs	Use of energy efficient light forms "low beam" Avoid lights being grouped Switch off lights at night	Ongoing day to day procedures	Houseboat manager, skipper and crew	Manager and skipper ensure that especially crew comply in reducing night lights
10	Mooring sites for the PV at Kasika and Kabulabula Conservancies	Landscape alteration Geomorphological and ecological impacts	Only at 2 sites anchor posts have been erected No vegetation is removed No new sites envisaged	Annual meetings with Conservancy Management Committee	Proponent	Currently only the specified 2 mooring sites are utilized No impact on the enviro

Summary table by NYEPEZ cc Consultants, May 2022

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

SECTION 3: UPDATED and REVISED ENVIRONMENTAL MANAGEMENT PLAN
TIME PERIOD: April 2026 to March 2029

No.	DESCRIPTION	DISCUSSION
3.1	Policy & Legal Framework	The EMA Act and Regulation specify the assessment process and guide the EAP on the information that is required for an EMP (**Table 7**)
3.2	Waste disposal (solids/liquids)	Impacts identified & recommended mitigation on the disposal of solid waste & discharge of effluent; systems in place to ensure that the carbon footprint on the Chobe River is kept at a minimum (**Table 6 & Table 8**)
3.3	Updated/revised EMP for PV	Provides day-to-day operation with a detailed description of potential hazard waste and current mitigation in place on board the PV Roles and responsibilities of the proponent, management and crew, are addressed
3.4	Summary of key Points	Activities raised in **Table 8** that require further attention from the Proponent and manager are highlighted

3.1 Policy and legal framework

The Ministry of Environment, Forestry and Tourism (MEFT) requires that the current EMP of May 2022 is to be revised and updated. A tourism hospitality entity is a listed activity as per EMA Act and Regulation (**Table 7**) that may have a significant impact on the environment, and which consequently requires authorization from the relevant environmental authority.

Table 7: Regulation 29 to conform to, based on the type of activity conducted.

Legislation	Description of listed activity	Relevance to proposed activity
Regulation 29 of: Government Notice No. 29 of 2012	TOURISM DEVELOPMENT ACTIVITY 6: The construction of resorts, lodges, hotels or other tourism hospitality facilities	EXISTING & OPERATIONAL LODGE Note: No EIA but only an EMP is to be conducted **(Doc. 6)**

The following documents were consulted which have relevance to the update of the current EMP in place:

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

- Environmental Management Act (EMA), No 7 of 2007
- Environmental Management Act (EIA Regulation), GG No 30 0f 2012
- Guide of 2008 to the EMA No 7 of 2007, MEFT
- National Solid Waste Management Strategy (MEFT), 2018
- EMP for Nguni Zambezi Houseboat by the NYEPEZ cc consultants, May 2022

3.2 Sewage treatment system: on board the PV (Stage 1) and on land at ZEL (Stage 2)

Main sources of impacts on the environment arise from:

- Grey water (shower, wash basin, laundry, kitchen sink)
- Black water (staff and guests' toilets)
- Solids (plastic, paper, glass, tins)
- Organic waste (food leftovers)
- Other (oil, fuel and batteries)

Sewage Treatment System

UNIT	DISCUSSION
Stage 1 on board the PV	position and operation of septic tanks on board the PV; refer to **Fig. 6a** and **Fig. 9**
Boat for sewage transport	the boat from ZEL hired for collecting and transport of sewage to ZEL (**Fig. 10**)
Outlet sewage pipe at the PV	sewage waste sucked from outlet at the PV onto sewage transport boat (**Fig. 11**)
Stage 2 at Zovu Elephant Lodge	at Zovu Elephant Lodge (ZEL) sewage treatment system designed and installed by Mr. Peter Visagie (**Fig. 12)**

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

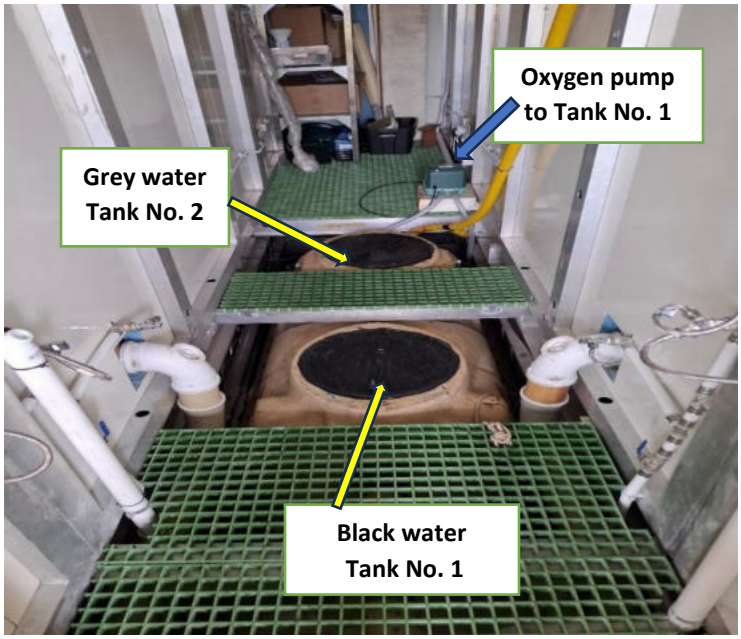

Figure 9: Position of septic tanks for black and grey water on board the PV in the hull (below lower deck) each a 2500-liter capacity

Figure 10: Boat used to transport sewage from the PV to ZEL sewage treatment system

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DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

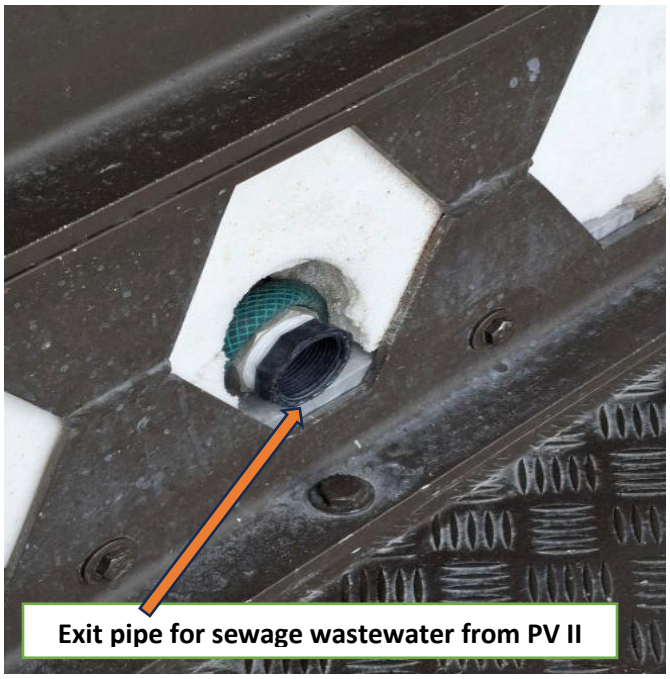

Figure 11: Outlet pipe for sewage wastewater connected to transport boat during emptying of septic tanks (rear of the PV)

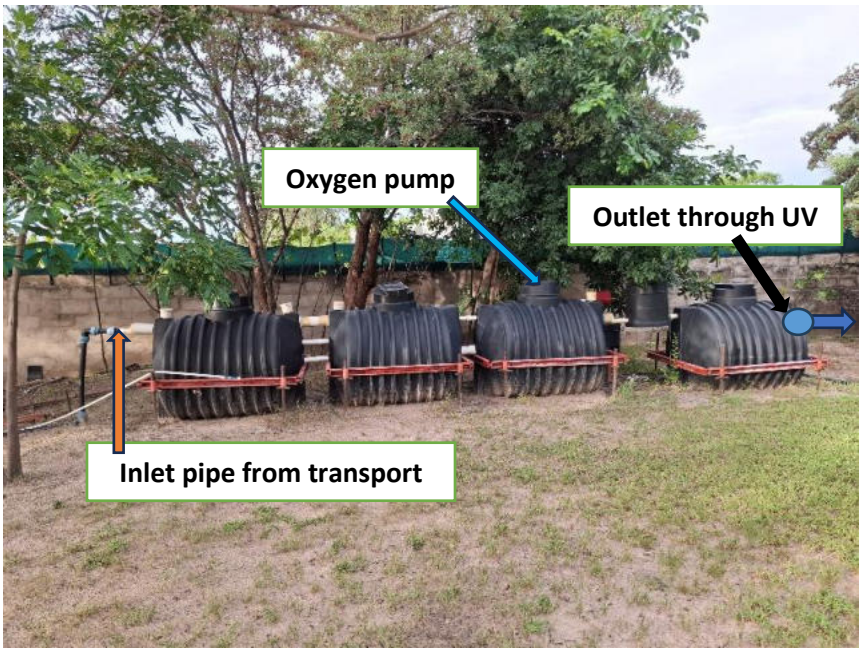

Figure 12: The 4-tank digester system at ZEL to purify wastewater

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Below **Stage 1,** table indicates the **location of septic tanks** and holding capacity prior transport to **Stage 2**: the 4-tank digester system at ZEL (**Fig. 12**).

LOCATION	TYPE SEPTIC TANK	CAPACITY for Black water tank	CAPACITY for Grey water tank
Between Cabin 1 and Cabin 2	Plastic	2500-L	2500-L
Between Cabin 3 and Cabin 4	Plastic	2500-L	2500-L
Between Cabin 5 and men's sleeping quarters	Plastic	2500-L	2500-L
Adjacent to lady sleeping quarters	Plastic	2500-L	2500-L
Exit connector pipe at rear end of boat (**Fig. 11**)	50mm outlet		

Boat capacity to transport wastewater and sewage to ZEL Sewage Treatment system (**Fig. 10**)	Plastic	800-L

Description of the process of purification taking place at the Sewage Treatment System

PV sewage treatment	i) Black water treatment (Tank 1) uses biological processes to decompose organic matter (oxygen input); UV light fitted between tank 1 and 2 (***aerobic respiration***) ii) Grey water treatment (Tank 2) removes large particles by screening and sedimentation (***anaerobic respiration***)
ZEL sewage treatment	i) 4-tank digester system further purifies water by removing nutrients & pathogens ii) Oxygen input at Tank 3 & at Tank 4 UV prior discharge to sprinkler system

Stage 1: On the PV

In the hull of the boat between cabins 1 & 2 tanks for black and grey water are installed **(Fig. 9**).
Tank 1: Black water: Effluent collector and shower/wash basin which is fitted with an oxygen pump to assist in aerobic respiration for decomposition of organic effluent waste
Tank 2: Grey water: Site where the anaerobic bacterial environment develops that decomposes or mineralizes the waste discharged into the tank from the showers, wash basin and kitchen.

Stage 2: At Zovu Elephant Lodge

Every second day, pending on guest capacity, the wastewater is collected and transported to ZEL sewage treatment system. Here wastewater is further treated via a 4-tank digester system of which the third tank is fitted with an oxygen pump to assist in the aerobic process (**Fig. 12**). Aerobic treatment consists of activated sludge processes where the bacteria utilize oxygen during the breakdown of organic sludge. Prior discharge of the purified wastewater to the sprinkler system, an UV light which kills potential pathogens that may still occur, will be fitted in due course.

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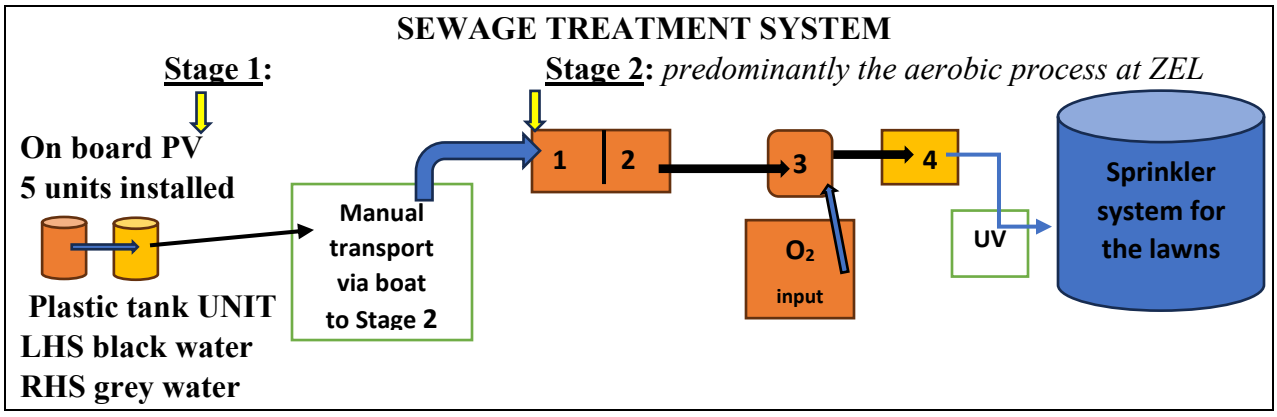
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

The ***schematic drawing*** below provides a simplistic overview of flow of wastewater at **Stage 2** (ZEL) which in its final phase is fitted to the sprinkler system:



Source: E Klingelhoeffer, March 2026.

Below is **Stage 2 at ZEL,** the main refinery unit for sewage waste referred to as the 4-tank digester system.

SYSTEM in PLACE	TANK No.	CAPACITY
Digester	1	800-l
Digester	2	800-l
Digester + Input O_2	3	800-l
Digester Purifier (UV light)	4	800-l
Sprinkler system connected to tank 4		

Effluent load during peak season occupancy:

PV can be referred to as a medium impact operation which can cater for a maximum of 10 guests per night in peak season; according to Edelstahlbau cc boat constructors, the current sewage treatment system is designed to manage the effluent based on peak season occupancy.

UNIT and No.	No. guests (max)
Cabins (5)	10
Crew men cabin (1)	8
Crew lady cabin (1)	2
Total	**20**

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

3.3 Revised and updated EMP

A detailed description of the *potential environmental impacts* and *current mitigation* in force identified by the EAP during March 2026 visitation, are listed in **Table 8**. Mitigation recommendations are provided in each case.

Methodology used: A qualitative approach was taken to assess the current management practices regarding waste disposal, i.e. to identify and to understand the complex phenomena of waste collection and disposal through in-depth, open-ended data collection, interviews, previous EMP submitted by NYEPEZ cc Consultants of May 2022, and analysis thereof.

Environmental objectives and ***targets*** have been developed to enable the PV operations ***to minimize potential impacts on the environment***, as far as it is reasonably practicable and to continue to achieve:

ITEM	ENVIRONMENTAL OBJECTIVES
NOISE, LIGHT & WATER	To achieve zero pollution incidents
WATER ABSTRACTION	No ground water is being abstracted Surface water from Chobe River - no leaking pipes Application of license in process with MAFWLR of the Dept. Water Affairs
FLORA	At the 2 mooring sites no disturbance to the vegetation
FAUNA	Distance to wildlife in shallow waters is being respected No gravel or sand pits dug
SAFETY OF STAFF, GUESTS & INFRASTRUCTURE	Safety first: zero accidents have been recorded to date Fire extinguishers in place Guests well briefed; professional guides appointed

Table 8 below provides an **overview of activities** that may **potentially impact** on the environment negatively. Recommendations are made on mitigating solid waste and grey/black water disposal and any other potential impacts the day-to-day operations of the PV can have on the environment.

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/013824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Table 8: Potential impacts per activity and mitigation recommended based on findings: March 2026

`No.	ACTIVITY	POTENTIAL IMPACTS TAKEN NOTE OF	WHO RESPONSIBLE	MITIGATION-ACTION RECOMMENDED
1	**The Nguni Zambezi Houseboat (Pty) Ltd strives to comply to the EMA ACT of 2007 and Regulation 29 o 2012 for the operational PV and Conditions specified per ECC of 21 April 2023**	The issue of ECC dated 21 April 2023 was based on an EMP submitted by NYEPEZ cc Consultants in May 2022, to the EC office of MEFT Roles and responsibilities of various staff members regarding EMP compliance not always clear ECC conditions dated 21 April 2023 not followed i.e. *C3 Point 4* and *C4 Point 14* However, it was observed that management strives to follow and ensure that PV is run and managed on eco-friendly principles	**Proponent and management** .	Proponent is aware of the importance of an EMP and acknowledges the necessity of compliance. Furthermore, the Proponent has undertaken to ensure that this EMP report will be strictly followed and implemented. It is recommended that: i) a bound copy of the EMP be kept on board PV ii) the EMP to be consulted regularly and form an integral part of management iii) staff to receive ongoing training in the objectives and importance of the EMP, service delivery, hygiene, the recycle and reuse concept iv) all septic tanks to be checked daily to determine capacity and possible signs of leakage
2	**Socio-economic benefits of the JV Agreement are achieved and bi-annual JMC meetings attended**	Bi-annual JMC meetings between the operator of PV and the Conservancy Management Committee to take place As per contract, the 10-year lease agreement is in force and will expire in December 2033	**Proponent**	To prioritize JMC meetings held and benefits shared as per JV Agreement; the EAP was informed that the bi-annual meetings are being attended Make regular contact with Conservancy Management Committee and update on activities that may affect them

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	POTENTIAL IMPACTS TAKEN NOTE OF	WHO RESPONSIBLE	MITIGATION-ACTION RECOMMENDED
3	**Minimize negative impacts on the riverine ecology**	Increase in water abstraction during peak holiday season (winter and spring months) No removal of bush nor trees was observed at mooring sites (marshy floodplain area with sedges and grass)	**Management and crew**	Awareness campaign: to use water wisely Crew and guests to be informed that the septic tank capacity on board is limited Mooring points for PV to be kept devoid of litter and ensure that anchor posts on land are secure To ensure that when loading fuel and discharging of solids and effluent no spillage into the river occurs
4	**Minimize negative impacts on wildlife**	Guests are made aware of the potential danger of wild animals Feeding of wildlife by guests prohibited Guests and guides do not keep safe distances from wildlife in shallow water during photo shoots	**Management and skipper**	All guests are briefed upon arrival of the presence and dangers of wild animals The manager and crew are aware of the implications of illegal activities relating to wildlife. Ongoing training for guides regarding safety of guests and respect for wildlife.
5	**Mooring/Anchor sites at Kasika and Kabulabula**	Disturbance of game movements	**Manager and skipper**	To ensure that current mooring/anchor sites are not in the migration route of wildlife Wildlife corridors to be kept open at all times.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	POTENTIAL IMPACTS	WHO RESPONSIBLE	MITIGATION-ACTION RECOMMENDED
6	**Minimize impacts on water abstraction from Chobe River**	Pump cause and effect: • Noise pollution • Excess abstraction	**Proponent and management**	i) Ensure that pump system is always protected from wildlife (hippo, crocodile, elephant) ii) Operate pumps only during daylight hours iii) To acquire Abstraction License for surface water from Ministry of Agriculture, Water & Land Reform (Form No. WA03-SW) iv) To install a water logger meter at intake
7	**Minimize water pollution**	Potential petrol and oil spillage on land and at mooring sites; leakage of containers in storeroom Possible leakage and overflow at septic tanks and outlet valve	**Manager and skipper**	i)No spillages recorded to date ii)Ongoing training to staff recommended on safety precautions iii) Septic tanks (Stage 1) are emptied on a weekly basis iv) Hazardous fuel and oils kept safe in a storeroom
8	**Solid waste (paper, tins, plastic, glass) + organic food**	Not removed regularly No contractor secured to recycle solid waste Smell from rotting food leftovers	**Manager**	To ensure that: i) Organic left-over foods are removed daily and taken to compost heap at Pole Pole ii) Other solid waste to be stored well on board and removed as soon as capacity is reached iii) To secure a contractor that is willing to recycle solid waste
9	**Laundry operation**	N/A Done on land at Pangolin Chobe Hotel, at Kasane	**Manager**	None

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	POTENTIAL IMPACTS OBSERVED	WHO RESPONSIBLE	MITIGATION-ACTION RECOMMENDED
10	**Upper deck operation** **Dining area** **Lounge** **Outside upper deck** **Kitchen** **Bar**	Soap and detergents in case of spillage or leakage harmful to micro-organisms in the water In case of septic tank overflow/ blockage the smell and potential leakage into the river. Solid waste not stored well: plastic harmful to wildlife and aquatic organisms when swallowed Rotting food leaves bad smell and attracts unwanted insects	**Manager and kitchen staff**	It is recommended that: i) Only bio-degradable soaps to be used ii) Protocols to be in place on the hygienic operation of the dining area and refuse disposal iii) Staff to receive ongoing training in service delivery, hygiene, the recycle & reuse concept iv) Left-over organic foods to be removed daily to compost heap at Pole Pole v) Upper deck toilet to be checked daily if no leakage present vi) Recycle bins to be tightly closed each evening **Note:** A fat extractor to be installed in kitchen
11	**Fire extinguishers and Emergency Assembly Point**	In case of emergency, guests and crew do not know where to meet and what to do	**Manager and skipper**	A matter of urgency: i)Existing fire extinguishers to be checked to ensure the servicing dates are within requirements (8 extinguishers on board) ii) Emergency Assembly Point signage needs to be placed at strategic places: recommend at upper and lower deck at rear end of boat
12	**Pangolin Voyager operation**	Solids if not well secured could land in the river and cause unnecessary pollution	**Manager and skipper**	Bins on board – all solids collected / sorted and taken to shore at Pole Pole. Weekly transported by Sea Pride taxi boat to Katima Mulilo for recycling and disposal.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	POTENTIAL IMPACTS OBSERVED	WHO RESPONSIBLE	MITIGATION-ACTION RECOMMENDED
13	**Accommodation** *Cabins for guests* *Cabins for crew*	Soap and detergents in case of spillage or leakage harmful to micro-organisms in the water In case of septic tank overflow/ blockage a foul smell and leakage into the Chobe River a possibility Pollute the unique environment if not contained (aesthetics/wildlife) of solid and liquid waste into the Chobe River	**Manager and housekeeping staff**	i)Housekeeping staff to report leakage and to ensure that all solids are well stored at designated refuse storage site ii) Only bio-degradable soaps to be used iii)Good control in place: septic tanks (Stage 1) emptied on a regular basis once reached ¾ capacity All septic tanks to be checked daily to determine if no blockage
14	**Storeroom safety** (Petrol, chemicals, paint, lubricant oil, backup generator, gas bottles)	**Hazardous waste and solids (glass, tins, paper, plastic)** Potential spillage of oil, diesel & petrol – lead to contamination of the river Solids if not controlled can pollute the environment & plastics endanger wildlife	**Manager and skipper**	(i)Only certified containers used to store fuels and oil; ii) Recycle oils from engine services removed and to be used at Pole Pole e.g. treat wood to protect from ants;
15	**Water abstraction & effluent discharge**	Potential spillage during weekly extraction. Licenses not in place (compliance)	**Manager**	Great care to be taken during sewage removal Currently in process for the application of 2 licenses from Dept. of Water Affairs, MAFWLR

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

No.	ACTIVITY	POTENTIAL IMPACTS OBSERVED	WHO RESPONSIBLE	MITIGATION-ACTION RECOMMENDED
16	**Smaller boats for photographic safaris to shallow water**	Disturbance to wildlife at river edge Solids if not well secured could land in the river and cause unnecessary pollution	Manager and guide	Maintain respectful distance from wildlife A bin on board – all solids collected and to be taken back to the PV after photo safari into shallow waters
17	**JV Agreement between Proponent and Kasika/Kabulabula Conservancies**	Bi-annual meetings not always attended Regular contact with manager of Conservancy does not take place	Proponent and manager	To ensure that all bi-annual meetings are attended; currently all bi-annual meetings are being attended according to manager

Figure 13: a) stairway from lower deck to upper deck. b) lounge on upper deck. c) cabin no. 1 on lower deck.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

3.4 Summary of Key Points raised in Table 8 that require further attention by the Proponent

An update on progress made on points raised below shall be presented in the bi-annual EMP report as per requirement of the EC office of MEFT: Section C4 Points 6 and Point 14.

1. The **EMP is a living document**: this report must be filed at the manager's office and always be available to be consulted.
2. It is essential that **ongoing staff training** is provided by the manager on the importance and necessity of this EMP. All CREW to be made aware of compliance.
3. Clear **roles and responsibilities** be allocated to employees to ensure that "Best Management Practices" are in place and maintained.
4. Stage 1 septic tank receivers to be provided weekly "**digestive enzymes boosters**" via the toilets to assist in initial breakdown of solids.
5. The current Stage 2 septic tank purification system to be fitted with an efficient UV at septic tank 4 prior discharge onto the lawns at ZEL.
6. **Sorting bins for glass, plastic, paper and tins** to be placed at strategic places: the kitchen and staff quarters, prior dispatch to Pole Pole for further transport by Sea Pride boat to the Katima Mulilo official dumpsite (weekly).
7. **Fire extinguishers** to be at strategic places and serviced annually by a registered company.
8. Signage: **Emergency Assembly Point** needs to be installed at upper and lower deck.
9. Management continues to ensure that they maintain **good standing with JV** Management Committees of Kasika and Kabulabula Conservancies.
10. **Water abstraction and discharge**: the application for 2 licenses at the Ministry of Agriculture, Water and Land Reform for river water abstraction and discharge of purified effluent to be secured.
11. **Water meter logger** installed at intake to determine daily usage by PV

Environmental Management Act: In accordance with section 37(2) of the Environmental Management Act, Act 7 of 2007 and Environmental Impact Assessment Regulation of 2012 (GG 4878) an ECC can be issued by the EC based on the EMP submitted. The Proponent is advised to comply with the conditions of approval as set out in **Section C4: Points 1-17** after receiving receipt of the ECC especially to take note of ***C4 Point 6*** and ***Point 14*** below.

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Point 6: "The Proponent shall **appoint a suitable experienced environmental control officer**, or site agent where appropriate, before the commencement of any listed activities to ensure compliance with the conditions of approval and mitigation stipulated in the approved EMP".

Point 14: "The Proponent is required, from the date of commencing implementation of project activities, **to compile and submit environmental monitoring reports** (on project progress and the environmental management profile) on a **bi-annual basis** to the Office of the Environmental Commissioner"

Due to the type and nature of the business, The Nguni Zambezi Houseboat (Pty) Ltd (TNZHB) operation strives to be in line with the best tourism industry practice. Mitigation measures are key to the operation of TNZHB and need to be revised from time to time, i.e. to minimize the environmental effects on the Chobe River. It is for this reason that the existing EMP of May 2022 has been updated and presented in **Table 8.**

In summary: "The Nguni Zambezi Houseboat (Pty) Ltd" operating as the PV is a tourism-based business venture that impacts on the environment in one way or the other, that calls for consideration of different alternatives. TNZHB can be referred to as an eco-friendly establishment which strives to:

- Maintain low key impact waste generated
- Protocols are in place to reduce, reuse and recycle solid waste generated
- Reduce the risks to both the environment and public health
- Promote staff and community awareness on strategies to be considered and implemented in the "waste minimization"

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

SECTION 4: RECOMMENDATIONS AND CONCLUSION

4.1 Recommendations

It is the *objective of this report* to *list and to provide guidelines* to the Proponent in which sectors he could improve to ensure compliance according to the Environmental Management Act of 2007. The EMP is a recognized tool that can provide the assurance that the Proponent is able to make suitable provisions for mitigation.

"The Nguni Zambezi Houseboat (Pty) Ltd" is determined *to take appropriate action* to deliver:

- sustainable and safe waste management strategies to minimize environmental impact on the fauna and flora and
- which in turn will support the socio-economic viability of the local community who reside in the Kasika and Kabulabula conservancies

GOALS	ACTION-MITIGATION
New approach to enviro compliance	EMP to be regularly consulted; staff inhouse training on EMP compliance and best practices implemented
Enhance social benefits	Social responsibilities, includes employments, JV, training, community support as need arises
Adverse enviro impacts kept to a minimum	Protocols in place for solid waste management; to maintain high standards of current effluent discharge

The management of the PV has recognized the need to take appropriate action regarding:

RECOMMENDATIONS	APPROPRIATE ACTION
Stage 1: sewage receptor tanks on PV	Ensure they are all emptied more frequently (daily) during peak season to avoid unpleasant odours
Stage 2: sewage refinery system at ZEL	Fit UV light at tank no. 4 at ZEL
Safety and health as a priority goal	Proponent & manager to reduce risks wherever possible
Waste minimization and recycling	Proponent to source a reputable recycling company for their tins, glass and paper e.g. KM Scrap

In addition, this EMP outlines the *roles* and *responsibilities* of the Proponent and management, to ensure that the best environmental management practices are in place.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

4.2 Conclusion

It is to be re-emphasized that The Nguni Zambezi Houseboat operating as the PV is a low impact tourism establishment on the Chobe River, which caters for a maximum of 10 guests per day during peak season.

The unique location of PV, which is positioned in the heart of KAZA TFCA, is contributing to the following entities:

ENTITIY	CONTRIBUTIONS by PROPONENT of The Nguni Zambezi Houseboat
1	Contribution to Namibia's GDP
2	Positive upliftment to the socio-economic structure of adjacent communities
3	Contribution to livelihoods of people through job creation
4	Stimulate, attract and encourage tourism in the KAZA TFCA
5	Provides guests with the best wildlife experience

Key Points raised in SECTIONS 2 and 3 that require attention

No.	COMPLIANCE
1	The ***EMP reports*** of **May 2022**, and **April 2026** are living documents and to be filed at the operational manager's office and ***always be available to be consulted.***
2	It is essential that ***ongoing staff training*** is provided by TNZHB management to the staff on the importance and necessity of this EMP; all crew on board PV to be made aware of compliance.
3	Management to ensure that they maintain ***good standing with EEC*** (Employment Equity Commission) regarding labour issues.
4	Surface water abstraction and discharge of effluent: the ***process has been initiated by the EAP*** for water abstraction and effluent discharge license acquisition; the need to follow up with the Department of Water Affairs of MAFWLR.
5	Continuing to ***ensure that all solid waste*** (glass, tins, paper, plastic) accumulated ***is removed from Pole Pole*** and taken to a recycling company ***e.g. Rent a Drum or KM Scrap (for plastics and tins)***

In conclusion, management is encouraged at all times to aim to: <u>reduce</u> *(avoid/minimize),* <u>reuse</u> and <u>recycle</u> waste where and whenever possible, which TNZHB cccurrently strives to ensure that

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

their tourism operation on the Chobe River is rated and known for its environmentally eco-friendly operation where the carbon footprint is negligible.

From observations made on board of the PV**,** TNZHB (Pty) Ltd could be ***nominated for*** the ***Eco Award Namibia***, which is a mark of distinction for accommodation establishments that are planned and managed according to eco-friendly principles.

ACKNOWLEDGEMENTS

To the Skipper Mr. Lanky for the cordial discussions and showing in detail the ins and outs of the PV infrastructure and functioning and to the courteous staff who were always there to assist. Sincere thanks to the manager Nakita Visagie for providing prompt and relevant information (documents attached), telephonic discussions and emails, necessary for the compilation of this EMP.

The EMP of May 2022, which is still in force, was a most helpful reference in compiling this EMP.

REFERENCES

i) Environmental Management Act (EMA), No 7 of 2007
ii) Environmental Management Act (EIA Regulation), GG No 30 of 2012
iii) The 2008 Guide to EMA No 7 of 2007, MEFT
iv) Google earth maps
v) National Solid Waste Management Strategy (MEFT), 2018
vi) Water Act and Regulation of 2013 and 2023
vii) EMP Report of May 2022 by NYEPEZ cc Consultants
viii) All pictures taken by the EAP Klingelhoeffer.

<u>Note:</u> AI was not used to compile or to generate both the BID and the EMP

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

RELEVANT DOCUMENTS 1 - 8 AS PER EC REQUEST

Document 1: Joint Venture between "The Nguni Zambezi Houseboat (Pty) Ltd" and Kasika and Kabulabula Conservancies

JOINT VENTURE AGREEMENT

For

NGUNI ZAMBEZI HOUSEBOAT CC

Made and entered into by and between:

THE KASIKA CONSERVANCY

Herein represented by **ALFRED SINKUMBWA**
In his capacity as Chairperson
(Herein after referred to as "the Conservancy")

AND

NGUNI ZAMBEZI HOUSE BOAT CC
REGISTRATION NR: cc/2011/4130

Herein represented by **BEATE SCHWIPPERT**
In her capacity as **MANAGER**
(Herein referred to as the "the Operator")

(Joint herein referred to as "the Parties")

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M.M.M
N.K SAM

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

24. GOOD FAITH

The Parties to this agreement acknowledge that at all times they will act in the spirit of cooperation, fairness and good faith to enable the underlying principles and objectives in this Agreement to be successfully achieved.

The undersigned representatives being duly authorised thereto by their respective institutions have signed this Agreement.

Dated at Kasika conservancy office on this 08th day of Decemebr 2023

Representative

Kasika Conservancy

Chairperson: SINKUMBWA M.

WITNESSES:

1. ..... Name: KANDJIMI NELSON

2. ..... Name: NAMENAMASHIE MARTIN

Representative

Nguni Zambezi House Boat CC

Manager Beate Schwippert

WITNESSES:

1. ..... Name: KANDJIMI NELSON

2. .....

Name:.....

N.K S.A.M. M.M.M

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

JOINT VENTURE AGREEMENT

For

Nguni Zambezi Houseboat CC

Made and entered into by and between:

THE KABULABULA CONSERVANCY

Herein represented by **Justin Mulenamaswe**
In her/his capacity as Chairperson
(Herein after referred to as "the Conservancy")

AND

Nguni Zambezi House Boat CC
Registration Nr CC/2011/4130

Herein represented by **Beate Schwippert**
In her/his capacity as **Manager**
(Herein referred to as the "the Operator")

(Joint herein referred to as "the Parties")

L7 J-M-M N.K

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Atlantic Aquatic & Terrestrial CONSULTING SERVICES CC/2021/03824
Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

24. GOOD FAITH

The Parties to this agreement acknowledge that at all times they will act in the spirit of cooperation, fairness and good faith to enable the underlying principles and objectives in this Agreement to be successfully achieved.

The undersigned representatives being duly authorised thereto by their respective institutions have signed this Agreement.

Dated at KASIKA on this 07 day of DECEMBER 2023

Representative

Kabulabula Conservancy

.....

Chairperson: MULENAMASWE J. M

WITNESSES:

1.....

Name: LISITH FELIX

2. .....

Name: KANDJIMI NELSON

Representative

Nguni Zambezi House Boat CC

.....

Manager Beate Schwippert

WITNESSES:

1.....

Name. LISITH FELIX

2. .....

Name: KANDJIMI NELSON

L7 JMM N.K

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ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Document 2: ECC issued for Nguni Zambezi Houseboat cc on 21 April 2023

ECC – 2300331 Serial: 23PR4aR331

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

ENVIRONMENTAL CLEARANCE CERTIFICATE

ISSUED

In accordance with Section 37(2) of the Environmental Management Act (Act No. 7 of 2007)

TO

Nguni Zambezi House Boat cc
P. O. Box 2333 Ngweze

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

THE EXISTING AND OPERATIONAL NGUNI HOUSEBOAT IN KASIKA COMMUNAL DISTRICT OF ZAMBEZI REGION

Private Bag 13306 WINDHOEK NAMIBIA
25 APR 2023
ENVIRONMENTAL COMMISSIONER
REPUBLIC OF NAMIBIA

Issued on the date: 2023-04-21
Expires on this date: 2026-04-21

(See conditions printed over leaf)

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081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Document 3: Conditions specified in the ECC (C2, 3, 4: 19 points) which the Proponent needs to comply with

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

Tel: (00 26461) 284 2111
Fax: (00 26461) 232 057

Cnr Robert Mugabe &
Dr Kenneth Kaunda Street
Private Bag 13306
Windhoek
Namibia

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

NOTIFICATION OF DECISION

REF NUMBER: ECC23000311 **DATE OF ISSUE: 21 April 2023**

Nguni Zambezi House Boat cc
P. O. Box 2333 Ngweze

Dear Sir/ Madam

SUBJECT: NOTIFICATION ON APPLICATION FOR ENVIRONMENTAL CLEARANCE TO UNDERTAKE THE PROPOSED LISTED ACTIVITY: THE EXISTING AND OPERATIONAL NGUNI HOUSEBOAT IN KASIKA COMMUNAL DISTRICT OF ZAMBEZI REGION.

Notice is herewith given in accordance with section 37(2) of the EnvironmentalManagement Act, Act 7 of 2007 and Environmental Impact Assessment Regulations of 2012 (GG 4878): that a decision in respect to your application No. **APP 230124000888** for Environmental Clearance Certificate to undertake a listed activity has been reached.

DECISION
An Environmental Clearance Certificate (ECC) to undertake the listed activities specified in the environmental assessment report and draft management plan dated May 2022, is granted (**ECC23000311**). Theapplicant / proponent is therefore advised to comply with conditions of approval set out in **Section C** of this notification.

A. **DETAILS OF THE PROPOSED ACTIVITY**

A1: TITLE OF THE PROPOSED ACTIVITY

EXISTING AND OPERATIONAL NGUNI HOUSEBOAT IN KASIKA COMMUNAL DISTRICT OF ZAMBEZI REGION

A2: DETAILS OF ASSESSMENT PRACTITIONER

Nyepez Consultancy cc (Managing Director) | +264814554221 (T)
N/A (F) | +264814554221 | gsinyepe@yahoo.co.uk

1

"Stop the poaching of our rhinos"

All official correspondence must be addressed to the Executive Director

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

A3: LOCATION OF PROPOSED ACTIVITY

(Annexure A – proposed site map)

B. RELEVANT LISTED ACTIVITIES

Legislation	Description of Listed Activity	Relevance to Proposed Activity
Regulation 29 of Government Notice No. 29 of 2012	TOURISM DEVELOPMENT ACTIVITIES 6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.	EXISTING AND OPERATIONAL NGUNI HOUSEBOAT IN KASIKA COMMUNAL DISTRICT OF ZAMBEZI REGION

C. CONDITIONS

C1: Conditions of Approval

1. This certificate does not in any way hold the Ministry of Environment, Forestry and Tourism accountable for misleading information, nor any adverse effects that may arise from these activities. Instead, full accountability rests with the proponent and its consultants.

2. This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project.

3. Regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored throughout this process.

C2: Clearance Certificate Validity

1. This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office.

2. On expiry of the ECC, the proponent is required to submit within a period not exceeding one month, and in the prescribed form and manner an application to the Office of the Environmental Commissioner for the renewal of the ECC.
3. Failure to renew an expired environmental clearance certificate shall result in permanent termination of the environmental clearance certificate.

C3: Compliance with authorization under other laws

4. All other applicable and required permits or authorization from relevant competent authorities must be obtained prior to commencing the proposed activities and accordingly adhered to.

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C4: Implementation and Monitoring

5. The granting of the Environmental Clearance Certificate (ECC) constitute, an approval for the implementation of mitigation measures proposed in your approved Environmental Management Plan (EMP), hence making the approved EMP legally bindingdocument.

6. The proponent shall appoint a suitably experienced environmental control officer, or site agent where appropriate, before the commencement of any listed activities to ensure compliance with the conditions of approval and mitigation stipulated in the approved EMP

7. A copy of the Environmental Clearance Certificate (ECC), EMP, Environmental Audit and monitoring reports must be kept at the site of the authorized activity and readily available for inspection by officials of the Ministry and registered Interested and affected Parties (I&APs) on request.

8. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the National Heritage Council of Namibia. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from National Heritage Council.

9. Using the best and affordable methodology, the Proponent must ensure that all listed activity's operations footprints are thoroughly rehabilitated prior to closure of the operation. Wherever possible, the Proponent must proceed with the rehabilitation process concurrently with the progression of the project rather than wait until the damage is far beyond the available means of management.

10. The general standard for all rehabilitation processes must at all costs aim at restoring the natural character of the environment to the satisfaction of the Ministry of Environment, Forestry and Tourism. Such rehabilitation processes shall be inspected and certified satisfactory or unsatisfactory by the Ministry of Environment, Forestry and Tourism. Where a certificate of unsatisfactory is issued, the Proponent shall be advised to carry-out certain tasks to meet the requirements. Failure to meet the basic rehabilitation requirements shall be regarded by this Ministry as a breach of this contract and of which serious consequences shall follow.

11. Officials of the environmental commissioner's office may from time-to-time conduct spot-inspection (non-auditing) without prior notice and or Auditing Inspection (dates to be agreed prior to arrival to the site), hence access to the site and the aforementioned documentation must be granted to any authorized official representing the Office of the Environmental Commissioner and Registered Interested and Affected Parties (I&APs)

12. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Office of the Environmental Commissioner before such changes or deviations may be implemented. In assessing whether to grant such acceptance/ approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

13. Officials representing the Office of the Environmental Commissioner must be, in possession and or by request and for the purpose of inspection referred to in C4(11) present their staff identification card in order to gain entry to the premises

3

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14. The proponent is required, from the date of commencing implementation of project activities, to compile and submit environmental monitoring reports (on project progress and the environmental management profile) on a bi-annual basis to Office of Environmental Commissioner

15. Any changes to, or deviations from the scope of project activities approved in respect to the assessment received and reviewed for the purpose or granting this ECC Number (**ECC23000311**) are subject to an amendment application and approval by the Environmental Commissioner prior to adopting / implementing any such changes / deviations.

16. For the purpose of amending and or transferring the ECC, the proponent submit in the prescribed form and manner an application to the Office of the Environmental Commissioner, clearly indicating the need for amendment and or transfer of the ECC

17. Non-compliance with a condition of this Environmental Clearance Certificate or EMP may render the Proponent liable to criminal prosecution.

D. DISCLAIMER

The decision taken by the Office of Environmental Commission is based mainly on information provided by the proponent or their representative, therefore, it must be noted here that the proponent is accountable for any wrong and misleading information that may have been presented in the environmental assessment documents.

Yours Sincerely,

Timoteus Mufeti
ENVIRONMENTAL COMMISSIONER

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ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

<u>Document 4:</u> Appointment letter of EAP Dr E Klingelhoeffer on 16 February 2026

PANGOLIN VOYAGER

THE NGUNI ZAMBEZI HOUSE BOAT CC
T/A
PANGOLIN VOYAGER HOUSEBOAT, CHOBE RIVER, ZAMBEZI REGION

The Environmental Commissioner
Mr Timothy Mufeti
Ministry of Environment, Forestry and Tourism
Private Bag 13306
WINDHOEK **Date: 16 February 2026**

REQUEST for the RENEWAL of an ENVIRONMENTAL CLEARANCE CERTIFICATE (ECC) for the operation of a HOUSEBOAT on the CHOBE RIVER (ZAMBEZI REGION) with the

THE NGUNI ZAMBEZI HOUSE BOAT CC T/A

PANGOLIN VOYAGER HOUSEBOAT

APPOINTMENT OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Dr Ekkehard Klingelhoeffer

Dear Mr. Mufeti,

I make reference to the letter from the then Environmental Commissioner (EC) Mr. T. Nghitila, dated 25 April 2023 (find attached). This is to inform your kind office, that the ECC for the Pangolin Voyager Houseboat will elapse on 21 April 2026 (find attached). The Pangolin Voyager Houseboat, for which the renewal of an ECC is requested, was replaced with a new boat as of July 2025.

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Project Name: Operation of a Houseboat on the Chobe River for tourists in the Zambezi Region of Namibia

Nature of Activity: Operating the Pangolin Voyager Houseboat on the Chobe River, Zambezi Region

As prescribed by the Environmental Management Act No. 7 of 2007, for the Pangolin Voyager Houseboat to be accredited as a tourist venture, we ae aware that our Environmental Clearance Certificate (ECC) needs to be reviewed every three years.

We hereby wish to inform your office that I have appointed Dr. Ekkehard Klingelhoeffer, of Atlantic Consulting Services CC/ 2021/03824 as the Environmental Assessment Practitioner (EAP), to assist my company to be re-issued an Environmental Clearance Certificate. His task will be as follows:

1. To ensure that an updated Environmental Management Plan (EMP) is compiled, submitted and implemented
2. To ensure that a rigorous Waste Management Protocol for solids and black/grey water is in place
3. To secure the water abstraction license and an effluent discharge license as prescribed by the Ministry of Agriculture, Fisheries, Water and Land Reform
4. Dr Klingelhoeffer will be provided with a copy of the existing EMP and the current ECC including any additional documents relevant to the EMP that the EAP may require for updating the current EMP.

Please let me know if there is any additional information that is required by your office to ensure that our Environmental Clearance Certificate (ECC) can be re-issued for a period of 3 years.

Yours sincerely,

Nakita Visagie

Guest Relation Manager
Pangolin Voyager

Email: nakita@pangolinphoto.com
Cell no. + 264 (0) 81 665 9598

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Animal and Ecosystem Health Consultant
DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Document 5: Allocation of the APP No. on 22 March 2026

New application for an Environmental Clearance Certificate

Ministry of Environment and Tourism 09:06 (1minute ago)

to me

REPUBLIC OF NAMIBIA
Ministry of Environment, Forestry & Tourism

2026-03-22

Dear Ekkehard Klingelhoeffer,

Thank you for applying for an Environmental Clearance Certificate (ECC) for "The Nguni Zambezi Houseboat (Pty) Ltd".

Your application has been registered with application number **260322007204**

Thank you

Phillip Trosky Building
P/Bag 13306, Windhoek | Tel: +264 61 284 2111 | DEA: +264 61 284 2701

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P.O.Box 594 Swakopmund

Document 6: Verification: Screening notification & instructions received from EC office, 23 March 2026.

Your application is verified

Ministry of Environment and Tourism
to me

23 Mar 2026, 18:11 (12 hours ago)

REPUBLIC OF NAMIBIA
Ministry of Environment, Forestry & Tourism

2026-03-23

Dear Ekkehard Klingelhoeffer,

This email serves to inform you that your application **APP-007204** for "The Nguni Zambezi Houseboat (Pty) Ltd" has been Verified.

Taking the following into considerations:

- Location of the project
- Pollution potential
- Scale of operation of the project

Please upload the following documents:

- EMP

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P.O.Box 594 Swakopmund

- Confirmation of screening notice received (through email) in terms of assessment procedures (Section 35 (1)(a)(b) of the Environmental Management Act, No 7 of 2007)
- Preliminary Site Map (Project boundaries) with coordinates (decimal degrees) and a Legend
- CV of Environmental Assessment Practitioner (EAP)
- Consent or proof of consultation from Parks/ Conservancy Management
- Proof of written notice to the local authority council, regional council and traditional authority, in which the site or alternative site is situated; and consent obtained
- Upload proof of payment (Revenue Stamps)

Please login onto our portal to upload required documents, if any
https://eia.met.gov.na
NB- for the purpose of Section 38 of the Environmental Management Act, 2007 read with Regulation 4(d), kindly forward copies of all relevant documents i.e. (application forms, EIA, Scoping reports, EMP etc.) to the office of the Environmental Commissioner
Thank you

Phillip Trosky Building
P/Bag 13306, Windhoek | Tel: +264 61 284 2111 | DEA: +264 61 284 2701

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Document 7: Declaration of authorship for the Submission of Assessment Reports

Declaration of authorship

APPLICATION NUMBER: APP 260322-007204

Project Title:

To offer photographic safaris on the Chobe River, Zambezi Region, NAMIBIA

Report 1: Background Information Document (BID) for Pangolin Voyager II on Chobe River

Report 2: Environmental Management Plan (EMP) for Pangolin Voyager II

Note: AI was not used to generate nor to compile the above 2 reports

I, Ekkehard Klingelhoeffer (full name of Environmental Assessment Practitioner - EAP) understand and agree that the information I have furnished in this submission will be reviewed by the Office of the Environmental Commissioner (OEC). I accept that the Environmental Commissioner, will hold me accountable in terms of Section 43(1)(b) of the Environmental Management Act, Act No. 7 of 2007 for any inaccurate or misleading information knowingly provided in the following documentation.

Tick the box (es) applicable to your submission:

- ☐ Pro Forma Environmental Contract for Mining Claim(s)
- ☐ Environmental Questionnaire For Mining
- ☒ ~~Scoping report~~ / Background Information Document
- ☐ Environmental Impact Assessment (EIA)
- ☒ Environmental Management Plan (EMP),
- ☐ Consent from Relevant Authority

I certify, and, acknowledge that the provision of such information will impede the lawful carrying out of the duties, responsibilities and functions of the Environmental Commissioner. I declare that the information submitted is my own work. All direct or indirect sources used are acknowledged as references.

Consultancy Name: Atlantic (Aquatic & Terrestrial) Consulting Services

EAP Signature: E. a Klingelhoeffer

Date: 7 April 2026

NB- To be submitted jointly with Scoping Report, EIA, EMP documents to the Office of the Environmental Commissioner

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DR EKKEHARD KLINGELHOEFFER
081 719 3939
ekkehardwk@gmail.com
P.O.Box 594 Swakopmund

Document 8: Abbreviated CV of EAP Dr E Klingelhoeffer – March 2026

Ekkehard Klingelhoeffer

Office 1
Wasserfall Street No. 2
Swakopmund,
Erongo Region

Office 2
Office at Plot No 18
Kubu and Kwena, Kaliembeza Village
Katima Mulilo, Zambezi Region

Contact details
Email: ekkehardwk@gmail.com

Cellphone: 081 719 3939

Marital status Married to Marion (Homeopathic Practitioner); they have a daughter and a son.

Higher Education Qualifications achieved:

- BSc degree major in Botany and Zoology
- BSc (Hons) in Wildlife Management
- MSc in Terrestrial Ecology: Tongaland Elephant
- PhD in Fishery Management and Oceanography
- Diploma in Tertiary Education (focus on Androgocis and Gerongocis)
- Diploma in Oceanography: Open University, UP

Languages spoken

a. English (fluent); **b.** German (fluent); **c.** Afrikaans (fluent) ;
d. Numerous Nguni dialects (basic to fluent)

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Positions held to date

- Student researcher: on human elephant conflict amongst the Tonga community (30 months), Kwa Zulu Natal, RSA
- Regional Conservation Ecologist (4 years), Mpumalanga, RSA
- Lecturer to future teachers (2 years) at Mgwenya Teachers College: Biology, RSA
- Lecturer to future wildlife conservationists (3 years) at NUST (Polytechnikon of Namibia)
- Principal scientist of the horse mackerel research unit: Swakopmund, Atlantic Ocean (7 years)
- Chief scientist of the oceanographer research unit: Swakopmund, Atlantic Ocean (6 years)
- Director & Deputy Director: Aquaculture & Inland Fisheries (8 years) for MFMR
- Regional Training Officer for: Angola, Namibia, South Africa: BCC (Benguela Current Commission - 1 year)
- Lecturer & HoD: Department of Wildlife Management and Tourism Studies -UNAM (10 years)
- Currently operating as a Freelance Environmental Consultant (on EIA and EMPs)

Atlantic Consulting Services cc

Director of this CC and as a team of professionals offer the following services with focus on Wildlife, Fisheries (Aquaculture/Aquaponics), Tourism establishments (EMPs for the Compliance on waste management)) and student support.

- EIA/EMP with focus on aquaculture & aquaponics projects and lately waste management plans (EMPs) at tourism establishments along the banks of rivers and wetlands
- Part time lecturing and student support (research proposals, editing Hons, MSc and PhD thesis)
- Logistics for student internships, practical and field excursions
- Business plans relating to conservation and aquaculture
- Consultancies in other related fields disciplines

Other fields of expertise

a. Acquired skills in project implementation and management e.g. GRN capital projects (Aquaculture Units) and co-ordinated the development of infrastructure for a Wildlife/Tourism Campus at Katima Mulilo.

b. Feasibility studies e.g. aquaponics for Hans Seidel Foundation.

c. EIA/EMP consultancies: focus on aquaculture e.g. Salmon Farming in the sea off Luederitz, EMP for waste management at Lodges.

d. Capacity building to staff and students within the Department of Wildlife Management and Tourism Studies (DWMTS), at Katima Mulilo UNAM Campus.

e. Experience in staff structure development for different Divisions/Directorates based on expected outcomes/deliverables.

f. Pre-planning, implementation, monitoring and evaluation of donor agency projects within the Ministry of Fisheries and Marine Resources e.g. with GTZ/GIZ, JICA, VietNam, Cuba, Spain, Norway, Finland, Iceland and lately KfW (through UNAM).

g. Gained experience in working with international / regional organizations such as GTZ/GIZ; KfW; NORAD; ICEDA; JICA; NNF; IWC, Tuna Commission, NAMPAB, Spanish Agency (SAIDC); Benguela Current Commission - BCC (Angola, and South Africa).

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h. Represented Namibia at the:
- International Whaling Commission in Grenada and Newfoundland
- FAO in Rome, Italy on Fisheries related issues.

i. Ability to teach and mentor students – at Polytechnic (NUST) and UNAM pertaining to conservation, wildlife management, HWC, plant taxonomy, entomology, ornithology, ecology, coastal and inland fishery research – to name a few.

j. Instrumental in promoting and developing the aquaculture sector in Namibia; assist in drafting the Aquaculture Strategic Plan, Act and Regulations.

k. Curriculum development in conservation, wildlife management and aquaculture programs.

l. Develop the field Attachment (Internship) Training Manual for students of the Polytechnikon (1988) and revised/updated for the Department of Wildlife Management and Tourism Studies (2014 and 2023).

m. Conducted a feasibility study on the potential of aquaponics in the Zambezi Region as an alternative livelihood, for the Hans Seidel Foundation (Windhoek) in 2021.

n. Conducted an EIA on Salmon farming offshore of Lüderitz.

Latest co-author Publication

Meyer, M., **Klingelhoeffer, E.,** Naidoo, R., Wingate, V., and Börner, J…2021. Tourism opportunities drive woodland and wildlife conservation outcomes of community-based conservation in Namibia's Zambezi Region. *ECOLEC*, Vol. 180 (c). DOI: 10.1016/j.ecolecon.2020.1068638.

Currently in draft:

i) Biannual bird counts in the Kasai Channel at Impalila Island, of the Zambezi Region.

i) Vegetation mapping of Impalila Island, in the Zambezi Region.

Self-drive ambitions:

It is my ambition to contribute through new innovative approaches to:
- the betterment of the livelihoods of communities in rural areas
- lecture students and to ensure that they acquire the necessary skills to enter the job market or to be self-employed (entrepreneurship)
- to continue to promote and to support the aquaculture industry (mariculture and aquaponics)
- encourage lodges to implement best practices in waste management
- contribute to the sustainable management and utilization of the natural marine and terrestrial resources
- to offer student support and mentorship in research projects, internship and field excursions.

Current focus:

To assist lodge owners located at the Chobe, Zambezi, Kwando and Kavango Rivers with their Environmental Management Plans (EMPs) to ensure that Proponents comply with the Policy, Act and Regulation of MEFT and are issued with an ECC. Furthermore, to provide support to acquire water abstraction and discharge of effluent licenses from MAWLR, Department of Water Affairs.

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