

INTEGRATED CO-MANAGEMENT OF ZAMBEZI / CHOBE RIVER FISHERIES RESOURCES PROJECT

Project No.: WWF –9F0792
 WWF-Norway –Norad – 5012 - GLO-08/449-29

Fish Protection Areas: Documentation for their establishment in Sikunga and Impalila Conservancies December 2011



Sikunga Channel FPA, showing boundaries



Kasaya Channel FPA, highlighted



Signatures of conservancies, TA, and Regional Council on letter requesting FPA establishment



Zambezi Classic angling competition, hosted in Sikunga Channel FPA.

by: Denis Tweddle & Clinton J. Hay

Field Document no. MFMR/NNF/WWF/Phase II/6



EXPLANATORY NOTES FOR THIS DOCUMENT

Part 1

In developing proposals for the establishment of Fish Protection Areas (FPAs) in Caprivi, as put forward in the Zambezi/Chobe Fisheries Project document, the conservancies of Impalila and Sikunga followed the procedures laid down in Section 22 of the Inland Fisheries Resources Act of 2003. They established their proposals with the assistance and guidance of the Ministry of Fisheries and Marine Resources through the Zambezi/Chobe Fisheries Project. After establishing the areas in which the FPAs would be established, and after thorough consultation with all relevant stakeholders, the conservancies approached the Traditional Authority in Bukalo, explained their proposals in detail, and obtained the approval of the Traditional Authority. With this in place the conservancies then obtained the approval of the Regional Council.

The communications between the conservancies, Traditional Authority and Regional Council form the first part of this document.

Part 2

With all relevant approvals in place, the project presented the proposal to the Ministry. The Minister of Fisheries and Marine Resources indicated in a meeting in Katima Mulilo that the conservancies should have (a) clearly demarcated boundaries, and (b) detailed management plans in place for the control of the FPAs. The project therefore hosted a workshop of all stakeholders in which the detailed management plans were developed for each FPA. The boundaries were demarcated using GPS on the instructions of the conservancies. These plans were then submitted to the Ministry on the 11th August 2011 through the Deputy Director of Aquaculture and Inland Fisheries, Dr Ekkehard Klingelhoefter. This letter is included here with the detailed management plan.

Part 3

In order to gazette the FPAs under Section 22 of the Inland Fisheries Resources Act of 2003, clarification was sought from the MFMR as to how the FPAs were developed through the project and how they fitted into the definitions in the Act. A memorandum was therefore prepared by the relevant Ministry officials to explain the process. Subsequent to this, a draft gazette notice was prepared for the Minister, though recognising that this would need to be formally revised by the Ministry's legal experts before enactment. This document indicates how the conservancies can be empowered to manage the FPAs through their management plans, using powers granted to the Minister under Section 22 (2) of the act. The memorandum and the draft gazette notice forms the third part of this Field Document.

PART 1

Requests by Impalila and Sikunga Conservancies for establishment of Fish Protection Areas approved by the Traditional Authority and Regional Councils

**IMPALILA CONSERVANCY,
P.O. Box 2435,
NGWEZE,
IMPALILA ISLAND**

&

**SIKUNGA CONSERVANCY,
P.O. Box 578,
NGWEZE,
KALIMBEZA AREA**

6 December 2010

**To: Bukalo Traditional Authority
Bukalo**

**To: The Regional Governor
Regional Council
Katima Mulilo**

Dear Sirs,

**RECOGNITION OF FISH PROTECTION AREAS UNDER MANAGEMENT OF
THE CONSERVANCIES OF SIKUNGA AND IMPALILA**

This is a joint letter from the Conservancy committees of Impalila and Sikunga requesting declaration of fishing reserves in terms of Section 22 of the Inland Fisheries Resources Act of 2003 [see attached section of the Act below].

In our conservancies we are seriously concerned about the continuous decline in fisheries stocks in the Zambezi and its floodplains and would like to prevent further deterioration of our fishery resources. We therefore wish to establish reserves which we will call "Fish Protection Areas". The aim of these Fish Protection Areas is to create areas where fish are able to live, grow and breed without interference, in order to restock surrounding areas with abundant fish stocks to support a healthy fishery. A further aim of these Fish Protection Areas is to derive revenue for the conservancies through the issuing of paid permits for tourists to fish in these areas provided they use the "catch and release" method (this means that all fish caught must be released unharmed back into the water).

After extensive discussions over the last three years and with the assistance of the MFMR/NNF Zambezi/Chobe Transboundary Fisheries Project, we have identified suitable areas to be made into Fish Protection Areas (see attached description of proposed reserves). We hope to propose further protected areas in future.

Section 22 of the Act indicates that the Minister will respond to initiatives of the Regional Council and/or Traditional Authorities, in consultation with such authorities. We therefore propose to approach the Minister with the approval of the Bukalo Traditional Authority and the Regional Council in Katima Mulilo to establish these Fish Protection Areas.

We therefore hereby request the approval of the Traditional Authority in Bukalo and Regional Council in Katima Mulilo to approach the Minister to declare, by notice in the Gazette, the areas proposed in the attached document as fisheries reserves (here called Fish Protection Areas) under Section 22 of the Inland Fisheries Resources Act of 2003.

Yours faithfully,

Henry Kalonda
Area Induna, Impalila sub-Khuta

IMPALILA SUB KHUTA
17 DEC 2010
Private Bag 5006
KATIMA MULILO
NAMIBIA

Kelly Ndana
Chairman, Impalila Conservancy

IMPALILA CONSERVANCY
P.O. BOX 2435, NGWEZE
17 DEC 2010
IMPALILA ISLAND

Leonard Masangu
Area Induna, Kalimbeza

Leonard Masangu

KALIMBEZA SUB-KHUTA
P/BAG 1049
KATIMA MULILO
2011 -01- 13
REP. OF NAMIBIA

Fabian Libebe
Chairman, Sikunga Conservancy

Fabian Libebe

SIKUNGA CONSERVANCY
P. O. Box 578
Ngwena
11 JAN 2011
Kalimbeza Area
Katima Mulilo
REPUBLIC OF NAMIBIA

CHIEF LISWANI III

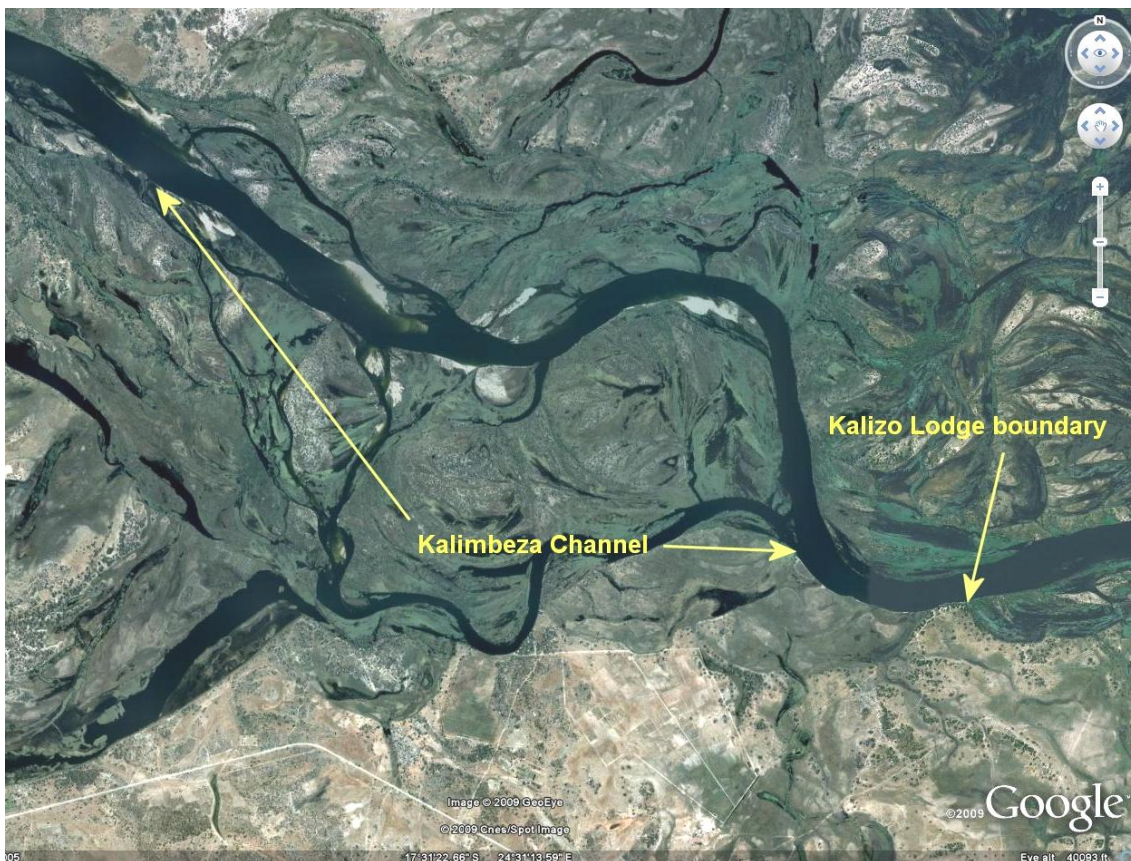
[Signature]
REGIONAL COUNCIL
Governor's Office
14 MAR 2011
Private Bag 5002
Katima Mulilo
REPUBLIC OF NAMIBIA

Section 22 of the Inland Fisheries Resources Act of 2003 – legislation for the establishment of fish reserves

22. (1) The Minister, on his or her own initiative, or in response to an initiative of any regional council, local authority council or traditional authority, and in consultation with regional council, local authority council or traditional authority concerned, may by notice in the *Gazette* declare any area of inland waters as a fisheries reserve if the Minister considers that special measures are necessary –
- (a) to preserve the aquatic environment
 - (b) to protect, preserve or rehabilitate the natural environment of fish, related ecosystems including wetlands, lakes, lagoons, nursery and spawning areas, which are essential to maintaining the integrity of an ecosystem, species or assemblages of species;
 - (c) to promote regeneration of fish stocks;
 - (d) to protect fish resources and their environment from destruction, degradation, pollution and any other adverse impacts through human activities that threaten their health and viability.

**PROPOSED FISH PROTECTION AREAS
FOR WHICH APPROVAL IS REQUESTED FROM
BUKALO TRADITIONAL AUTHORITY AND
KATIMA MULILO REGIONAL COUNCIL**

**1. KALIMBEZA CHANNEL PROTECTED AREA, SIKUNGA
CONSERVANCY**



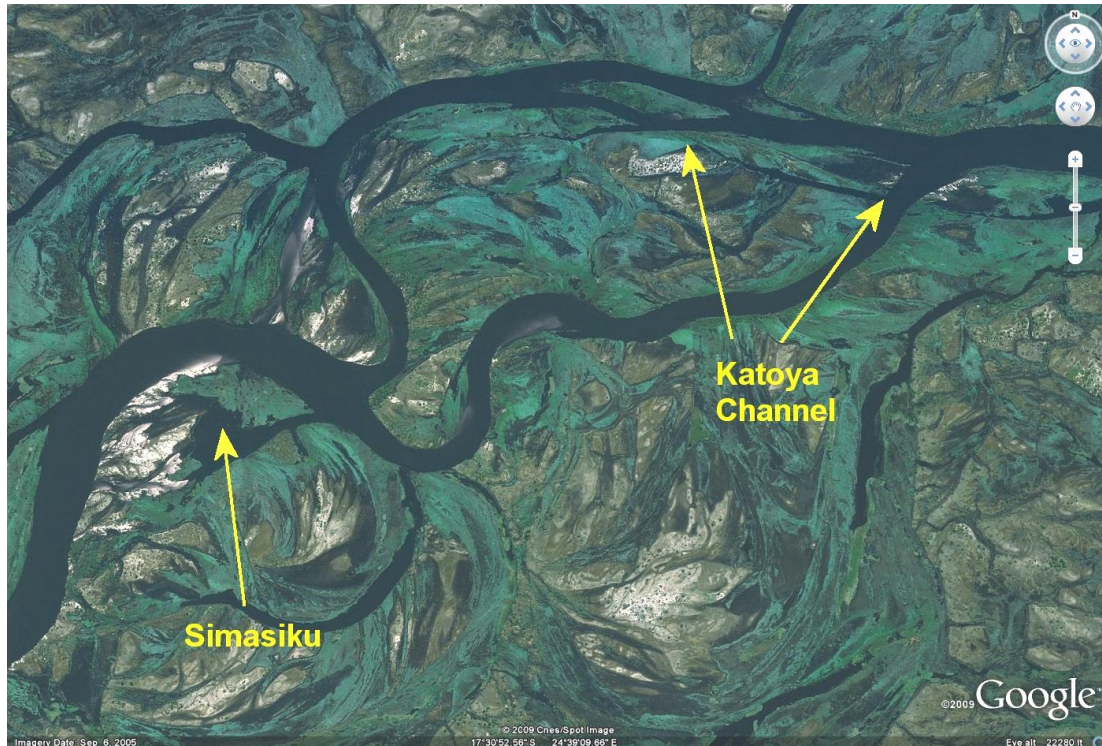
Proposed boundaries of the Kalimbeza Channel Fish Protection Area:

Upstream entrance to channel: 17°30'50" S, 24°30'30" E

Downstream exit from channel: 17°32'00" S, 24°33'00" E

Downstream boundary of Kalizo Lodge, Zambezi South bank: 17°32'24"S,
24°34'07"E

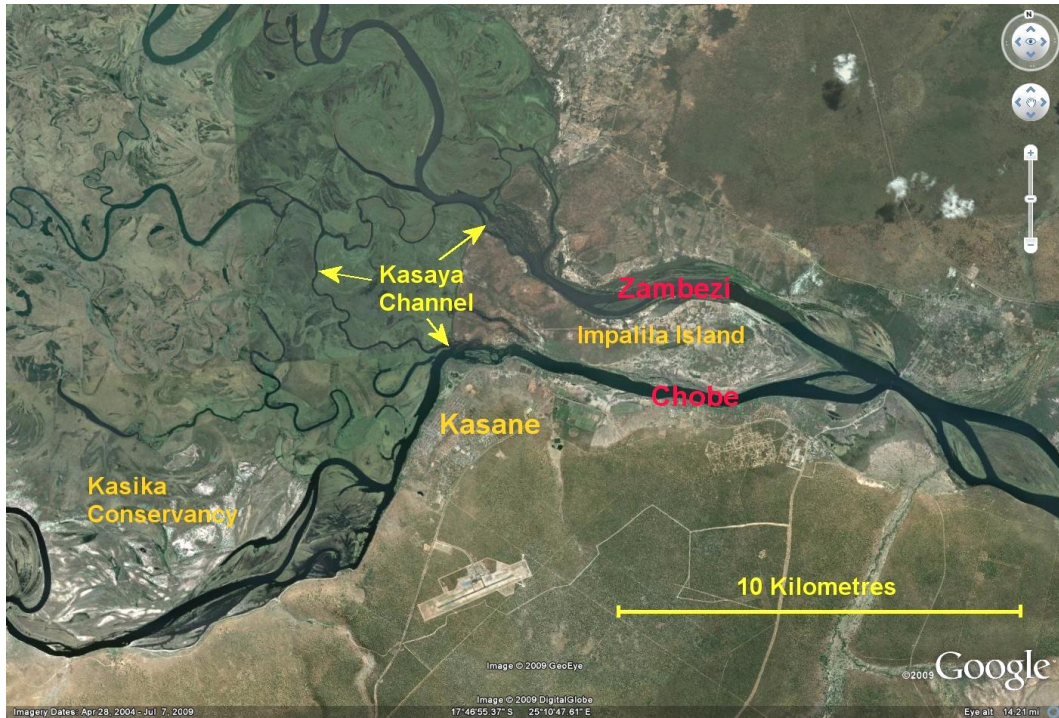
2 & 3. SIMASIKU LAGOON AND KATOYA CHANNEL FISH PROTECTION AREAS, SIKUNGA CONSERVANCY



Proposed boundaries of Simasiku Lagoon and Katoya Channel proposed Fish Protection Areas:

Simasiku lagoon entrance: 17°31'00"S, 24°38'10"E; Top left corner of reserve: 17°30'55"S, 24°37'35"E; Bottom left corner of reserve: 17°31'15"S, 24°37'40" E
Katoya channel entrance: 17°30'13"S, 24°40'3"0 E; Upper limit of channel: 17°30'00"S, 24°39'40"E

4. KASAYA CHANNEL, IMPALILA CONSERVANCY



The eastern end of the Caprivi floodplain, indicating the areas of Impalila and Kasika Conservancies and the position of the Kasaya Channel, highlighted in the satellite image below.



Proposed extent of the Kasaya Channel, highlighted in yellow, proposed boundaries are as follows:

Exits Zambezi River: 17°44'43"S, 25°09'32"E

Enters Chobe River: 17°46'40"S, 25°09'37"E

PART 2

Submission of management plans for the Fish Protection Areas in Impalila and Sikunga Conservancies to the Ministry of Fisheries and Marine Resources and request for their establishment through a notice in the gazette.

**Integrated Management of the Zambezi/ Chobe River System
Fishery Resource Project**
*A joint project between the Ministry of Fisheries & Marine Resources,
WWF and NNF*

C/o Ministry of Fisheries & Marine
Resources
Private Bag 1004
Ngweze, Katima Mulilo
Caprivi Region, NAMIBIA
Tel: +264 252-392; Fax: +264 66 253-226
Email: d.tweddle@saiab.ac.za

Thursday, 11 August 2011

Directorate of Aquaculture and Inland Fisheries
(Attention Dr E. Klingelhoefter)
Kamutjonga Inland fisheries Institute
Divundu

Dear Dr Klingelhoefter,

**REQUEST BY THE IMPALILA AND SIKUNGA CONSERVANCIES TO
THE MINISTER OF FISHERIES AND MARINE RESOURCES
TO DECLARE, BY NOTICE IN THE GAZETTE, THE ESTABLISHMENT OF
FISHERIES RESERVES IN THE CONSERVANCIES,
AS INDICATED IN THE ATTACHED DOCUMENTS**

As you aware, discussions have been taking place concerning the proposed establishment of Fish Protection Areas (FPAs) in various parts of the Caprivi floodplains, under Section 22 of the Inland Fisheries Resources Act of 2003, which allows for the establishment of fish reserves. Following the guidance given by the Ministry, the conservancies of Impalila and Sikunga entered into a process of consultation with the communities, traditional leaders, and the Ministry with its Zambezi/Chobe fisheries project, as specified in the Act, Section 22.(1).

This process culminated in a formal request by the conservancies to the Traditional Authority in Bukalo and the Regional Governor in Katima Mulilo to approve the establishment of such reserves. These authorities approved this request (see attached document) and we therefore request that the first two such reserves be gazetted under the Act. The two proposed Fish Protection Areas are those numbered 1 and 4 in the attached document, i.e. the Sikunga Channel (identified as the Kalimbeza Channel in the document) in the Sikunga Conservancy, and the Kasaya Channel in Impalila Conservancy. The other two sites proposed for FPAs are currently under review, with a decision being made to concentrate at this stage on sites 1 and 4 as a pilot programme, to allow for the development of effective management plans for the FPAs. The Zambezi/Chobe Fisheries Project is assisting the conservancies in drawing up management plans for the FPAs.

As requested by the Minister to Dr Hay in April, a workshop was held with the conservancies to draw up management plans for the reserves, to accompany the request from the conservancies. This management plan is now attached. In this workshop it was agreed that the boundaries of the reserves should be more carefully and accurately defined, and therefore a mapping exercise was conducted with the conservancies. It will be noted that the boundaries of the Kasaya Channel are exactly as previously defined in the attached request from the conservancies, but the Sikunga Channel protected area is now mapped in great detail and a section of the channel that falls outside the conservancy boundary has been removed from the definition of the boundaries. That section falls under the control of Lisikili fishing committee under a separate TA, and it is proposed to include it as a separate reserve at a future date.

As the management plans are further defined and implemented, certain modifications may be recommended by the communities, such as the inclusion of peripheral lagoons and side channels, but these refinements can only be achieved over time through extensive consultation with, and the approval of, all fishermen in the area. At present therefore, the conservancies request the approval for the reserves as per the boundaries clearly outlined in the attached management plan.

We therefore now request the Minister to approve the declaration of these two pilot Fish Protection Areas as fish reserves under Section 22 of the Inland Fisheries Resources Act of 2003

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Denis Tweddle', with a long, sweeping horizontal line extending to the right.

Denis Tweddle
Project Executant, Zambezi/Chobe Fisheries Project

On behalf of the Conservancy Offices, Impalila and Sikunga

MANAGEMENT PLANS FOR FISH PROTECTION AREAS IN THE SIKUNGA AND IMPALILA CONSERVANCIES, EASTERN CAPRIVI

1 INTRODUCTION

The fishery along the Zambezi River is poorly controlled and fishermen are using destructive methods to increase their catches. The present control systems are ineffective and some changes are needed to reduce the fishing impact. One way of doing this is to identify zones that are easy to control and to manage.

Existing legislation makes provision for the establishment of Fish Protection Areas (under the name fisheries reserve), under Section 22 of the Inland Fisheries Resources Act (2003), as follows:

(1) The Minister, on his or her own initiative, or in response to an initiative of any regional council, local authority council or traditional authority, and in consultation with the regional council, local authority council or traditional authority concerned, may by notice in the Gazette declare any area of inland waters as a fisheries reserve if the Minister considers that special measures are necessary –

(a) to preserve the aquatic environment;

(b) to protect, preserve or rehabilitate the natural environment of fish, related ecosystems including wetlands, lakes, lagoons, nursery and spawning areas, which are essential to maintaining the integrity of an ecosystem, species or assemblages of species;

(c) to promote the regeneration of fish stocks;

(d) to protect fish resources and their environment from destruction, degradation, pollution and any other adverse impacts through human activities that threaten their health and viability.

(2) A person may not in a fisheries reserve declared under subsection (1), without the written permission of the Minister –

(a) engage in any activity for fishing; or

(b) dredge or extract any material or discharge or deposit any waste or other polluting matter or in any other way destroy, disturb or interfere with the natural environment of fish and related ecosystems.

Caprivi fishing communities have recognised the problems in the fishery and have endorsed the concept of protected areas where fish will be protected to allow them to grow, reproduce and therefore replenish the fish stocks in surrounding areas, thereby helping to guarantee long term sustainability of the fishery. Agreements were reached with Sikunga and Impalila conservancies and village fishing committees for the establishment of pilot Fish Protection Areas in their areas. These areas have been endorsed by the Traditional Authority and by the Regional Council.

This document lays down the process followed for the establishment of these Fish Protection Areas and their management. The management plan covers the proposed pilot Fish Protection Areas in the Sikunga and Impalila conservancies. These areas are shown in Figures 1 to 3.

2 SIKUNGA CONSERVANCY

Management Targets

Sikunga Channel Reserve

Primary goal: Implementation and management of Fish Protection Area encompassing the Sikunga Channel from point where it leaves Zambezi to where it rejoins the main Zambezi River. From there the Fish Protection Area continues to upstream boundary of Kalizo Lodge, thereby creating protected area effectively extending to downstream boundary of the lodge (Figure 1).

Aims: To establish the Sikunga Channel as a sanctuary for breeding and growth of economically important but over-exploited large cichlid (bream/tilapia) species with a view to the following:

- Enhancing exploitable fish stocks in fishing areas adjacent to the Fish Protection Area because of improved recruitment in, and outward migration from, the Fish Protection Area.
- Improving revenue to the community as a result of increased angling tourism to the lodges in the area. There are two potential major benefits, (a) the lodges are important sources of employment for the local community, and (b) the lodges may pay the community for the rights to fish (strictly catch-and-release angling or trophy fish may be bought by anglers) in the Fish Protection Area.

Actions taken:

1. The following steps were completed to establish a Fish Protection Area as a legal entity:

- Agreed boundaries of the Fish Protection Area were delineated with the Sikunga Conservancy fisheries sub-committee.
- The Conservancy management and local traditional leaders reached agreement with Traditional Authority on establishing the Fish Protection Area as requested by the conservancy.
- The request was presented to the Regional Council and was approved.
- On approval, the documentation was forwarded via MFMR to the Minister for final approval.

2. The Sikunga Conservancy fisheries sub-committee, in association with Traditional Authorities, the Ministry of Fisheries and Marine Resources (MFMR), Regional Council and adjacent tourist lodges, drew up a management agreement for the Fish Protection Area. (e.g.

including catch-and-release angling in Fish Protection Area on payment of fees to conservancy).

3. The Sikunga Conservancy fisheries sub-committee will continue with awareness programmes about the implementation of the Fish Protection Area and rules therein.

4. The Sikunga Conservancy fisheries sub-committee appointed fish guards to help in controlling activities in the Fish Protection Area.

Boundaries of Sikunga Channel Fish Protection Area

Summary description

The Sikunga Channel Fish Protection Area includes the southern side channel of the Zambezi River from the point at which it leaves the main river (channel entrance) to the point where the channel exits back into the main Zambezi River, excluding side channels as described below. It then follows the south bank of the river, extending 50 m into the river from the bank, as far as the eastern boundary of Kalizo Lodge.

Detailed description

➤ The Sikunga Channel Fish Protection Area (FPA) starts at the entrance to the channel from the Zambezi River, as defined by the line between the two sets of coordinates (Point 1 in Table 1).

➤ The FPA includes the whole channel between the banks until Point 2 (Table 1, site A on map), where the coordinates mark the entrance to a side channel that is excluded from the FPA.

➤ The FPA includes the whole channel between the banks from Point 2 (Table 1) to Point 3 (Table 1, site B on map), where the coordinates mark the entrance to the Lisikili Channel, which is excluded from the FPA.

➤ The FPA includes the whole channel between the banks from Point 3 (Table 1) to Point 4 (Table 1, site C-D on map), where the coordinates mark the entrance to side channels and lagoons that are excluded from the FPA.

➤ The FPA includes the whole channel between the banks from Point 4 (Table 1) to Point 5 (Table 1, site E-F on map), where the coordinates mark the entrance to side channels and lagoons that are excluded from the FPA.

➤ The FPA includes the whole channel and small islets between the banks from Point 5 (Table 1) to Point 6 (Table 1, channel exit on map), where the coordinates mark the north corner of the exit to the Zambezi River.

➤ The south bank of the FPA extends to the downstream eastern boundary of Kalizo Lodge. The in-river boundary is as follows: (1) a straight line from point 6 to point 8, which is 50 m offshore from point 7 (site G on map); (2) 50 m from the riverbank, following the riverbank from point 8 to point 11, which is 50 m offshore from site 10 (Kalizo 1 on map).

Table 1. The boundaries of the Fish Protection Area with key points numbered as listed in the detailed description. Letters in brackets indicate points shown on the map below.

Point	Locality	Coordinates	
1	Sikunga Channel Entrance	S 17°30.825'	E 24°30.373' & E 24°30.401'
2	Excluded side channel exit (A)	S 17°31.361'	E 24°30.494'
3	Excluded Lisikili channel (B)	S 17°31.870'	E 24°30.123'
4	Excluded channels (entrance C-D)	S 17°32.104'	E 24°31.387' & E 24°31.388'
5	Excluded channels (entrance E-F)	S 17°31.868'	E 24°32.358' & E 24°32.483'
6	Sikunga Channel exit	S 17°31.818'	E 24°33.029'
7	South bank (G)	S 17°32.281'	E 24°33.217'
8	50 m boundary off point G	S 17°32.259'	E 24°33.234'
9	Kalizo Lodge upstream boundary	S 17°32.384'	E 24°34.125'
10	Kalizo Lodge downstream boundary	S 17°32.461'	E 24°33.817'
11	Kalizo Lodge 50 m boundary	S 17°32.359'	E 24°34.125'

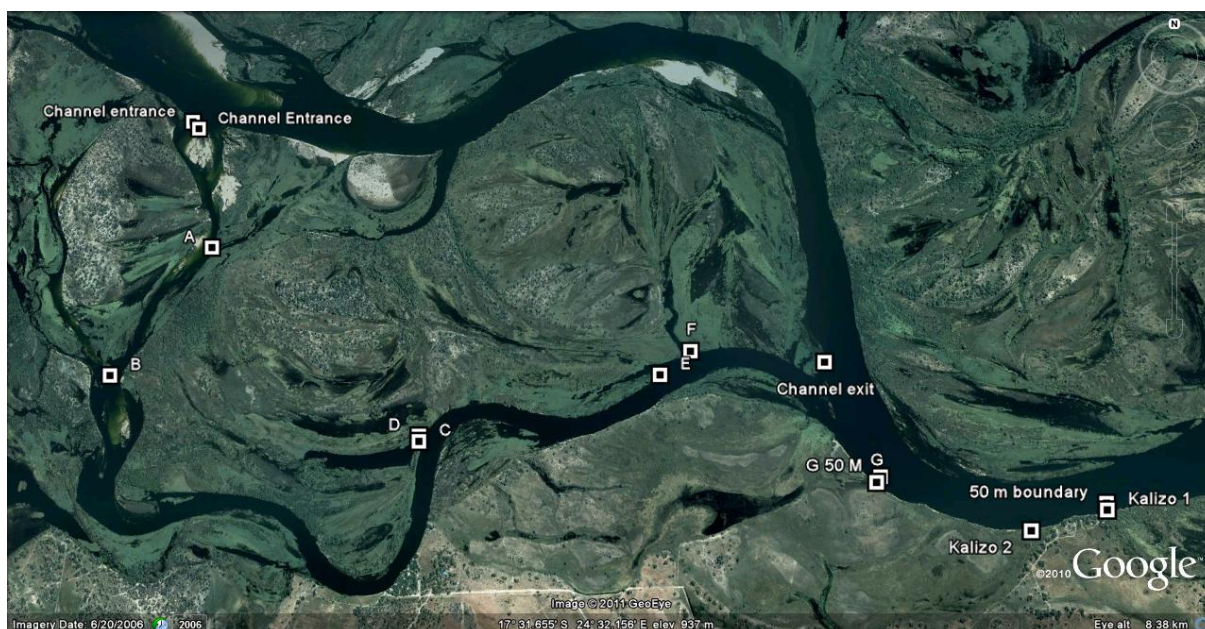


Figure 1. The Sikunga Channel Fish Protection Area, indicating points shown in Table 1 and in the text description of the FPA boundary. Picture©GoogleEarth

Rules:

1. No netting or the use of any net will be allowed in the FPA.
2. Recreational anglers will only practice catch-and-release when fishing in the FPA.
3. An annual fee as agreed between the lodges and the conservancy (all stakeholders) will be paid to the conservancy by the lodges/angling club(s).

4. An annual fee as agreed between the local angling club(s) and the conservancy will be paid by the angling club(s) to the conservancy.
5. Day visitors fishing in the FPA will pay the daily boat fee as agreed between all stakeholders.
6. Trophy fish caught may be kept at a cost per kg as agreed between relevant stakeholders.
7. Boat movement will only be allowed on the water in the FPA between 05:00 and 20:00.

Control measures:

Patrols will be made by the conservancy tour guides, conservancy game guards and conservancy fish monitors, in close agreement with, and through cooperation with, the Ministry of Fisheries and Marine Resources. They will be assisted by the Ministry of Fisheries and Marine Resources, and by the Namibian Police and the Ministry of Environment and Tourism as and when necessary.

3 IMPALILA CONSERVANCY

Management Targets

Kasaya Channel Fish Protection Area

Primary goal: Implementation and management of Fish Protection Area encompassing Kasaya Channel linking Zambezi River to Chobe River (as per agreed boundaries) (Figures 2 & 3).

Aims: To establish the Kasaya Channel as a sanctuary for breeding and growth of economically important but over-exploited large cichlid (bream/tilapia) species with a view to the following:

- Enhancing exploitable fish stocks in fishing areas adjacent to the Fish Protection Area because of improved recruitment in, and outward migration from, the Fish Protection Area.
- Improving revenue to the community as a result of increased angling tourism to the lodges in the area. There are two potential major benefits, (a) the lodges are important sources of employment for the local community, and (b) the lodges may pay the community for the rights to fish (strictly catch-and-release angling) in the Fish Protection Area.

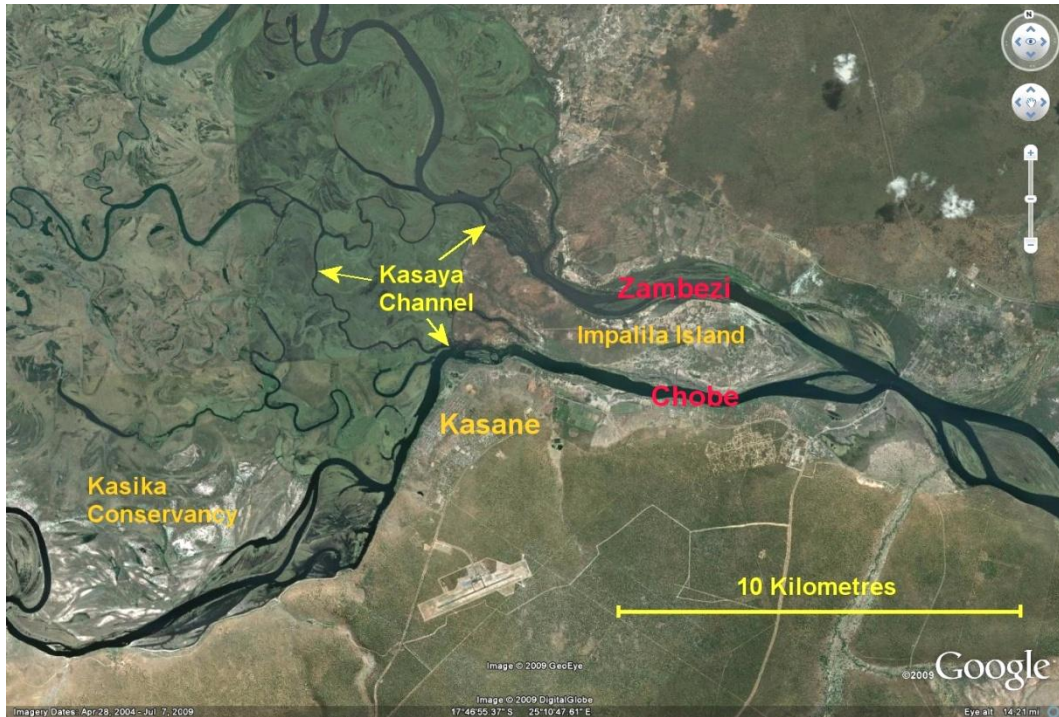


Figure 2. The eastern end of the Caprivi floodplain, indicating the area of Impalila and Kasika Conservancies and the position of the Kasaya Channel. Picture©GoogleEarth.



Figure 3. Extent of the Kasaya Channel, highlighted in yellow. Picture©GoogleEarth.

Boundaries of Kasaya Channel Fish Protection Area

Description

The Kasaya Channel Fish Protection Area includes the entire channel between the banks (at low flow) from the point at which it leaves the main river (channel entrance) to the point where the channel exits into the Chobe River. These boundaries are as follows:

Exits Zambezi River: 17°44.717'S, 25°09.533'E;
Enters Chobe River: 17°46.667'S, 25°09.617'E.

Actions:

1. The following steps were completed to establish a Fish Protection Area as a legal entity:
 - Delineate agreed boundaries of the Fish Protection Area with the Impalila Conservancy committee.
 - Committees reached agreement with Traditional Authority on establishing the Fish Protection Area as requested by the conservancy/fisheries committee.
 - The request was presented to the Regional Council and approved.
 - On approval, assist in forwarding the request via MFMR to the Minister for final approval.
2. The Impalila Conservancy Committee, in association with Traditional Authorities, MFMR, Regional Council and adjacent tourist lodges, drew up a management agreement for the Fish Protection Area (e.g. including catch-and-release angling in Fish Protection Area on payment of fees to conservancy).
3. The conservancy committee will continue with awareness programme about the implementation of the Fish Protection Area and rules therein.
4. The conservancy committee appointed fish guards to help in controlling activities in the Fish Protection Area.

Rules:

1. No netting or the use of any net will be allowed in the FPA.
2. Recreational anglers will only practice catch-and-release when fishing in the FPA.
3. An annual fee as agreed between the lodges and the conservancy (all stakeholders) will be paid to the conservancy by the lodges/angling club(s).
4. Day visitors fishing in the FPA will pay the daily boat fee as agreed between all stakeholders.
5. Trophy fish caught maybe kept at a cost per kg as agreed between all stakeholders.
6. Boat movement will only be allowed on the water in the FPA between 06:00 and 18:00.

Control measures:

Patrols will be done by the conservancy tour guides, conservancy game guards and conservancy fish monitors, in close agreement with, and through cooperation with, the Ministry of Fisheries and Marine Resources. They will be assisted by the Ministry of

Fisheries and Marine Resources, and by the Namibian Police and the Ministry of Environment and Tourism as and when necessary.

4 FUNCTIONS OF CONSERVANCY & VILLAGE FISHERIES COMMITTEES

- 🐟 Fisheries committees form the primary link between fishing communities, the Traditional Authority and the MFMR.
- 🐟 Committees listen to the concerns of fishermen, assist fishermen to reach agreement on issues faced in the fishery, and communicate the needs and decisions of the fishing communities to the MFMR.
- 🐟 Committees disseminate information provided by the MFMR, Traditional Authority and the Regional Council back to the fishing communities.
- 🐟 Committees will liaise with the MFMR over management with the resources under Section 29(2)(c) of the current Inland Fisheries Act.
- 🐟 In formulating new by-laws through a participatory approach with the fishermen in their area, committees will seek, and be guided by, advice from the MFMR to ensure that the proposed by-laws are supported by the latest scientific knowledge.
- 🐟 Committees will, with the assistance of the MFMR, be responsible for informing all fishermen in their areas of the regulations and any new by-laws, with the assistance of the MFMR.
- 🐟 Committees will be able to call in the enforcement section of MFMR, the Namibian Police or the MET to assist in dealing with recalcitrant fishermen who refuse to obey Regulations and by-laws.
- 🐟 As committees will have authority under agreement with the Traditional Authorities to assist in managing the resources, they will have the authority to take offenders to be dealt with under Traditional Authority laws.
- 🐟 The committees will liaise with all relevant stakeholders, i.e. Regional Council, MFMR and Traditional Authorities over any potential future changes to the licensing legislation.

PART 3

Memorandum to Permanent Secretary of MFMR summarising progress towards establishment of Fish Protection Areas, dated November 2011, followed by a draft government gazette notice prepared in December 2011 to indicate how the Fish Protection Areas can be established under the present Inland Fisheries Act, section 22 (1) and 22(2).



MEMORANDUM ON PROGRESS TOWARDS FISH PROTECTION AREAS:

Activities of the Integrated Co-Management of the Zambezi/Chobe Fisheries Resources Project and the necessary commitments from the MFMR to achieve the project's goals

PREPARED BY;

Christopher Munwela, Chief Fisheries Research Technician, MFMR Rundu Office

Damian Nchindo, Senior Fisheries Biologist, MFMR Katima Mulilo Office

**Denis Tweddle, Project Executant, Integrated Co-Management of the Zambezi/Chobe
Fisheries Resources Project**

The current 3-year phase of the Zambezi/Chobe Fisheries Project is nearing the end of its second year. The geographic focus is the Zambezi and Chobe River systems. The project aims to facilitate devolution of authority and management to community level. The planned outputs of the project are:

Output 1: Cross-border collaboration achieved in management of the fisheries resources.

Output 2: Management plan for the fisheries developed during Project Phase 1 successfully implemented (in collaboration with neighbouring countries) for the benefit of the communities.

Output 3: Fish Protection Areas established and fully functional in targeted pilot communities.

Output 4: Tourist angling lodges operating in agreement with local fishing/conservancy committees.

Output 5: Capacity built in research and monitoring of fish resource.

Output 6: Collaboration in next phase of NNF fish ranching project.

Potential environmental and biodiversity benefits from the second phase include:

- Removal of environmentally destructive fishing methods from the system
- Improved recruitment of commercially valuable fish species
- Restoration of aquatic ecosystem
- Protection of threatened Caprivi killifish
- Improved tourism potential

The MFMR, through this project, has made considerable progress in reaching its targets and has now reached a stage where the active support of the MFMR Head Office is needed to consolidate these achievements. The purpose of this memorandum is to briefly review progress and the activities being undertaken by the project in order to show where intervention is necessary.

The primary problem in the fishery is over-utilisation of the fish resources, a result of lack of ownership rights. In recognition of this, the MFMR, through this project, has adopted a CBNRM approach. A large part of the project area falls within conservancies, and in the very near future it is likely that almost all of the Namibian component of the floodplains will be in conservancies. A key premise of the conservancies programme is to devolve natural resource management to local communities by providing ownership of the resources.

Most communities in the project area have now set up fisheries committees and in many cases, with guidance from the MFMR and project, have initiated management programmes. The Muyako community on Lake Liambezi, in particular, has established a system on Lake Liambezi that incorporates rules for the fishery that are stricter, and more scientifically sound, than the regulations established under the Inland Fisheries Act. Muyako has established a register of all fishers in the area and ensured they are licensed.

Similarly, Kasika Conservancy is now compiling a register of the community's fishers, with the aim of establishing control over the fishery in the conservancy's waters. Sikunga Conservancy is also expected to follow suit.

RATIFICATION OF FISH PROTECTION AREAS

A major initiative is the establishment of Fisheries Protection Areas (FPAs). The aims of these are two-fold. The primary aim is for FPAs provide protection for fish to breed and grow, and thus seed the surrounding areas with fishable stocks. This is a well-established and scientifically proven management technique employed throughout the world, particularly in marine areas (MPAs). The second goal of the conservancies is to generate income by allowing tourist catch-and-release angling in the FPAs on payment of fees to the conservancies. This goal is fully compatible with the primary goal of the FPA, as no fish are removed from the FPA.

Following the MFMR's guidance to the project in briefing meetings held in MFMR HQ in Windhoek (and a meeting with the Minister in Katima Mulilo in April 2011), the two proposed pilot FPAs in Sikunga and Impalila Island were accurately mapped out by GPS and management plans for the FPAs were developed by the conservancies. These plans are in full compliance with both the Inland Fisheries Act and with the rules governing management of the other natural resources under the control of conservancies. The proposal and plans are with the MFMR urgently awaiting ratification by the Minister. Impalila Conservancy is already actively promoting its FPA in the Kasaya Channel linking the Zambezi River with the Chobe River. Notably it has received support by the tourism industry and has even been provided with an outboard engine by the Sekoma Lodge in Zambia to help in protecting the FPA.

Through the interventions of the project, several organisations are now interested in supplying the necessary logistical support for the conservancies to manage the FPAs in close

cooperation with the MFMR, who will supply the necessary legal support to ensure fishers' compliance with the FPA rules. This approach closely follows the conservancies' highly successful partnerships with MET to protect wildlife in their areas. In order to formalise these prospective partnerships (with MCA, Green Development Initiative, and private partners) the conservancies urgently request ministerial ratification of the FPAs under the Inland Fisheries Act.

HARMONISATION OF THE INLAND FISHERIES ACT AND THE CONSERVANCIES ACT

The Inland Fisheries Act of 2003 is an excellent piece of legislation requiring only minimal intervention to formalise empowerment of the conservancies to manage their fisheries resources under the guidance of, and with assistance from the MFMR. The two documents attached to this memorandum represent the project's contribution to the current process to update the Inland Fisheries Act and regulations.

**GAZETTE NOTICE FOR RECOGNITION OF THE SIKUNGA CHANNEL IN
SIKUNGA CONSERVANCY AND THE KASAYA CHANNEL IN IMPALILA
CONSERVANCY AS FISHERIES RESERVES UNDER SECTION 22 OF THE
INLAND FISHERIES RESOURCES ACT (2003)**

Notice is hereby given that under the Inland Fisheries Resources Act (2003) Section 22(1), the Minister of MFMR, in response to a written initiative of the regional council in Katima Mulilo and the Bukalo Traditional Authority dated 6 December 2010, and in consultation with said regional council and traditional authority, hereby declares the areas of inland waters delimited below as fisheries reserves in order:

- (a) to preserve the aquatic environment;
- (b) to protect and preserve the natural environment of fish;
- (c) to promote the regeneration of fish stocks;
- (d) to protect fish resources and their environment from destruction and other adverse impacts through human activities that threaten their health and viability.

The Minister further declares that under Section 22(2) of the aforesaid act, certain fishing activities will be permitted in these fisheries reserves under specific rules detailed below.

**SIGNATURE OF MINISTER IN HERE IN FORMAL FORMAT FOR
PUBLICATION IN THE GOVERNMENT GAZETTE**

**1) SIKUNGA CHANNEL FISHERIES RESERVE UNDER JURISDICTION OF
SIKUNGA CONSERVANCY**

Boundaries of Sikunga Channel Fisheries Reserve

Summary description

The Sikunga Channel Fisheries Reserve, hereafter formally named the Sikunga Channel Fish Protection Area, includes the southern side channel of the Zambezi River from the point at which it leaves the main river (channel entrance) to the point where the channel exits back into the main Zambezi River, excluding side channels as described below. It then follows the south bank of the river, extending 50 m into the river from the bank, as far as the eastern boundary of Kalizo Lodge.

Detailed description

- The Sikunga Channel Fish Protection Area (FPA) starts at the entrance to the channel from the Zambezi River, as defined by the line between the two sets of coordinates (Point 1 in Table 1).
- The FPA includes the whole channel between the banks until Point 2 (Table 1, site A on map), where the coordinates mark the entrance to a side channel that is excluded from the FPA.
- The FPA includes the whole channel between the banks from Point 2 (Table 1) to Point 3 (Table 1, site B on map), where the coordinates mark the entrance to the Lisikili Channel, which is excluded from the FPA.

✦ The FPA includes the whole channel between the banks from Point 3 (Table 1) to Point 4 (Table 1, site C-D on map), where the coordinates mark the entrance to side channels and lagoons that are excluded from the FPA.

✦ The FPA includes the whole channel between the banks from Point 4 (Table 1) to Point 5 (Table 1, site E-F on map), where the coordinates mark the entrance to side channels and lagoons that are excluded from the FPA.

✦ The FPA includes the whole channel and small islets between the banks from Point 5 (Table 1) to Point 6 (Table 1, channel exit on map), where the coordinates mark the north corner of the exit to the Zambezi River.

✦ The south bank of the FPA extends to the downstream eastern boundary of Kalizo Lodge. The in-river boundary is as follows: (1) a straight line from point 6 to point 8, which is 50 m offshore from point 7 (site G on map); (2) 50 m from the riverbank, following the riverbank from point 8 to point 11, which is 50 m offshore from site 10 (Kalizo 1 on map).

Table 1. The boundaries of the Fish Protection Area with key points numbered as listed in the detailed description above. Letters in brackets indicate points shown on the map below.

Point	Locality	Coordinates	
1	Sikunga Channel Entrance	S 17°30.825'	E 24°30.373' &
		S 17°30.855'	E 24°30.401'
2	Excluded side channel exit (A)	S 17°31.361'	E 24°30.494'
3	Excluded Lisikili channel (B)	S 17°31.870'	E 24°30.123'
4	Excluded channels (entrance C-D)	S 17°32.104'	E 24°31.387' &
		S 17°32.125'	E 24°31.388'
5	Excluded channels (entrance E-F)	S 17°31.868'	E 24°32.358' &
		S 17°31.775'	E 24°32.483'
6	Sikunga Channel exit	S 17°31.818'	E 24°33.029'
7	South bank (G)	S 17°32.281'	E 24°33.217'
8	50 m boundary off point G	S 17°32.259'	E 24°33.234'
9	Kalizo Lodge upstream boundary	S 17°32.384'	E 24°34.125'
10	Kalizo Lodge downstream boundary	S 17°32.461'	E 24°33.817'
11	Kalizo Lodge 50 m boundary	S 17°32.359'	E 24°34.125'



Figure 1. The Sikunga Channel Fish Protection Area, indicating points shown in Table 1 and in the text description of the FPA boundary. Picture©GoogleEarth

SPECIFIC ACTIVITIES PERMITTED IN THE SIKUNGA CHANNEL FISHERIES RESERVE UNDER SECTION 22(2) OF THE INLAND FISHERIES RESOURCES ACT (2003)

As enacted under Section 22(2) of the aforesaid Act, the Minister hereby gives permission for specific fishing activities to be allowed in this declared reserve under the specific conditions detailed below.

1. The management agreement drawn up for the Sikunga Channel Fisheries Reserve by the Sikunga Conservancy in association with the Bukalo Traditional Authority, the Ministry of Fisheries and Marine Resources, and the Regional Council in Katima Mulilo is hereby formally recognised.
2. No netting or the use of any net will be allowed in the Sikunga Channel Fisheries Reserve.
3. Recreational anglers will only practice catch-and-release when fishing in the Sikunga Channel Fisheries Reserve.
4. An annual fee as agreed between the lodges and the conservancy (all stakeholders) will be paid to the conservancy by the lodges/angling club(s).
5. An annual fee as agreed between the local angling club(s) and the conservancy will be paid by the angling club(s) to the conservancy.
6. Day visitors fishing in the Sikunga Channel Fisheries Reserve will pay the daily boat fee as agreed between all stakeholders.
7. Trophy fish caught may be kept at a cost per kg paid to the Sikunga Conservancy as agreed between relevant stakeholders.
8. Boat movement will only be allowed on the water in the FPA between 05:00 and 20:00.
9. Patrols for management of the Sikunga Channel Fisheries Reserve will be made by the conservancy tour guides, conservancy game guards and conservancy fish monitors, in close agreement with, and through cooperation with, the Ministry of

Fisheries and Marine Resources. They will be assisted by the Ministry of Fisheries and Marine Resources, and by the Namibian Police and the Ministry of Environment and Tourism as and when necessary.

2) KASAYA CHANNEL FISHERIES RESERVE UNDER JURISDICTION OF IMPALILA CONSERVANCY

Boundaries of Kasaya Channel Fisheries Reserve

Description

The Kasaya Channel Fisheries Reserve, hereafter formally named the Fish Protection Area includes the entire channel between the banks (at low flow) from the point at which it leaves the main Zambezi River course (Kasaya Channel entrance) to the point where the channel exits into the Chobe River. These boundaries are as follows:

Exits Zambezi River: 17°44.717'S, 25°09.533'E;

Enters Chobe River: 17°46.667'S, 25°09.617'E.



Figure 3. Extent of the Kasaya Channel, highlighted in yellow. Picture©GoogleEarth.

As enacted under Section 22(2) of the aforesaid Act, the Minister hereby gives permission for specific fishing activities to be allowed in this declared reserve under the specific conditions detailed below.

1. The management agreement drawn up for the Kasaya Channel Fisheries Reserve by the Impalila Conservancy in association with the Bukalo Traditional Authority, the Ministry of Fisheries and Marine Resources, and the Regional Council in Katima Mulilo is hereby formally recognised.
2. No netting or the use of any net will be allowed in the Kasaya Channel Fisheries Reserve.
3. Recreational anglers will only practice catch-and-release when fishing in the Kasaya Channel Fisheries Reserve.
4. An annual fee as agreed between the lodges and the conservancy (all stakeholders) will be paid to the conservancy by the lodges/angling club(s).

5. Day visitors fishing in the Kasaya Channel Fisheries Reserve will pay the daily boat fee as agreed between all stakeholders.
6. Trophy fish caught maybe kept at a cost per kg paid to the Impalila Conservancy as agreed between all stakeholders.
7. Boat movement will only be allowed on the water in the FPA between 06:00 and 18:00.
8. Patrols for management of the Kasaya Channel Fisheries Reserve will be made by the conservancy tour guides, conservancy game guards and conservancy fish monitors, in close agreement with, and through cooperation with, the Ministry of Fisheries and Marine Resources. They will be assisted by the Ministry of Fisheries and Marine Resources, and by the Namibian Police and the Ministry of Environment and Tourism as and when necessary.