

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

Project No.: WWF –9F0792  
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## Project Phase II: Implementation Presentation to MFMR HQ, February 2010



Presentation title page



Project Goal and Purpose



Importance of support for Fish Protection Areas



Proposed and potential Fish Protection Areas

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Field Document no. MFMR/NNF/WWF/Phase II/2



## PREPARATION OF THIS DOCUMENT

The second phase of the project entitled “Integrated Co-management of Zambezi / Chobe River Fisheries Resources Project has begun in January 2010. The Goal, Purpose, and Proposed Outputs for the second phase are as follows:

- 1.1 Project Goal:** The shared Zambezi/Chobe River fisheries resources sustainably managed by promoting transboundary coordination and collaboration on the introduction of fully integrated fishery management systems.
- 1.2 Project Purpose:** By end 2012, a fully integrated management system for livelihood and sport fisheries, that provides optimal benefits to all stakeholders reliant on this valuable resource, is in place in targeted pilot communities.

### 1.3 Project Outputs

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.

In order to achieve these outputs, inputs are necessary by the Ministry of Fisheries and Marine Resources. Two key areas are (a) legislative support for the implementation of recommendations made during the first phase of the project that are necessary to achieve management goals and outputs; and (b) availability of scientific staff and students to be trained by the project to develop capacity in research and monitoring. To clarify these requirements, presentations have been made to past and present Minister, Permanent Secretary and senior staff to explain the reasons for the project’s aims and activities, and to clarify the inputs that were necessary. This document contains the key presentation given in February 2010 in the MFMR office in Windhoek, the contents of which have been endorsed by the MFMR.

# INTEGRATED MANAGEMENT OF THE ZAMBEZI / CHOBE RIVER SYSTEM TRANSBOUNDARY FISHERY RESOURCE



## PROJECT GOAL

To sustainably manage the shared Zambezi/Chobe River fisheries resources by promoting transboundary coordination and collaboration on the introduction of fully integrated fishery management systems

## PROJECT PURPOSE

By end 2012, a fully integrated management system for livelihood and sport fisheries, that provides optimal benefits to all stakeholders reliant on this valuable resource, is in place in targeted pilot communities.

## PROBLEMS

- All those associated with the fishery, particularly communities adjacent to main river channels, agree that the fishery in the Zambezi/Chobe river system has declined in the last few years
- Research fishing proves the large bream species 'njinji' and 'muu' are over-fished
- Local communities, tourist lodges are complaining
- Fishermen now have to work a lot harder to catch the same amount of fish as they used to
- This means that there are fewer large fish in the river than there used to be

## REASONS

- Current fishing practices are destructive & unsustainable – best described as wholesale rape of the river's resources
- Benefits for the communities are leaving the area because of improved communication links – truckloads of fish going to urban markets
- Fishermen working harder and harder for fewer and fewer fish
- Floodplain communities pleading for help – they are reliant on fish for food and to sell to raise money for household needs, school fees, etc.
- Tourism, a vital and growing contributor to the local economy, is being severely impacted by the decline in large fish species targeted by recreational anglers

## WHAT ACTION IS NEEDED?

- Empower communities to manage their natural resources, including fish
- Integrate/coordinate activities of all government departments working in natural resources management in the area, i.e. recognise fish as one component of natural resources used in integrated livelihood strategies for the people living on the floodplains
- Education on sustainable fishing practices
- Strengthen management institutions (e.g. fisheries departments)
- Transboundary cooperation and coordination

## WHAT ELSE CAN WE DO?

- Empower conservancies and/or village fishing committees to formulate their own rules, with guidance from the project and MFMR
- Encourage the setting up of reserves (FPAs) where no extractive fishing takes place, to act as breeding and nursery areas to seed the fishing areas with new fish stocks
- Keep overall government fishery regulations short and simple, concentrating only on prohibiting the most damaging gears
- Agree all other regulations at a local level through participation with, and agreement with, the individual conservancies/village committees

## WHAT ELSE CAN WE DO? continued...

### PREVIOUS SLIDE, LAST POINT.....

Agree all other regulations at a local level through participation with, and agreement with, the individual conservancies/village committees

### WHY?

Because the floodplain fisheries have very different characteristics in different areas

- Main river channels: fishery dominated by large bream species and tigerfish
- Lagoons: breams but also numerous smaller species
- Shallow streams and pans on floodplains during flood events only: numerous very small, highly productive and short-lived species



### MAIN ZAMBEZI RIVER, SIDE CHANNELS AND LARGE LAGOONS:

Strong regulations to protect valuable large fish species,  
 -- for financial benefit of fishing communities,  
 -- to support tourism resource, provides employment and income to rural communities in areas where few other employment opportunities exist



### ISOLATED LAKES AND LAGOONS:

Allow wide variety of fishing gears to exploit all types of fish

### TEMPORARY FLOODPLAIN STREAMS AND PANS:

Allow exploitation of small species using methods that would be unacceptable elsewhere, e.g. mosquito nets



### COMMUNITY FLOODPLAIN FISHERY


Small, but adult, pioneering floodplain species are a valuable, short-lived human food resource



### DESTRUCTIVE GEARS – IMPLEMENT TOTAL BAN

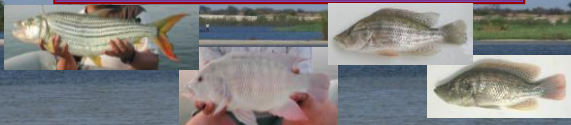
- Possession of illegal gear to be made a criminal offence even if not being fished (traders supplying such gears as guilty as fishermen using them)
- Import and use of monofilament gillnets must be stopped urgently, as they increase pressure on already overfished species
- Following illegal methods must remain banned under any circumstances:
  - Seine nets (dragnets) (possible exception in drying lagoons, only with special agreement with community)
  - Drifting gillnets
  - Driving fish into gillnets by beating water or bankside vegetation
  - Poisons and explosives

Research dragnet



### DRAGNET MADE OF MONOFILAMENT NETTING

## TOURIST RECREATIONAL FISHERY



- Recreational fishery (predominantly by tourists) needs to be better understood in the context of the national economy
- Value of lodges to local communities (particularly employment)
- Target species are tigerfish (stocks generally healthy) and large 'bream' species (stocks over-exploited and in urgent need of management)
- Most operate catch-and-release policy therefore lodges do not have an impact on fishermen's livelihoods
- Potential for conservancies to manage FPAs where catch and release angling practised on payment of rod fees to conservancies
- This would help to resolve conflict between lodge owners and commercial/subsistence fishermen over resource utilisation

## FISH PROTECTION AREAS

- Communities/conservancies recognise value of protecting areas where fish can breed and grow in peace and thereby replenish fish stocks in neighbouring areas
- Communities recognise potential for income from tourists practising catch-and-release angling in these reserved areas

Following slides show areas proposed by the communities as reserves. Boundaries have been agreed, management plans have been formulated by the communities for these reserves, and provisional agreements have already been reached with several lodges for angling rights in these areas.

Implementation only needs Ministry agreement under existing legislation.



## PROJECT ACHIEVEMENTS SO FAR

- Improved understanding of floodplain fisheries dynamics
- Sound biological basis now available for adaptive management
- Thorough groundwork prepared in Namibia for community management based on conservancy principles
- Excellent relations established with TAs, conservancy and fishing committees in Namibia project area
- Potential for no-fishing reserves accepted in principle by fishing communities
- Lines of communication with Zambia Department of Fisheries (DoF) established
- Collaboration on frame survey with DoF
- Recommendations for modification to Namibia Inland Fisheries legislation (but still needs further input to remove excessive gear restrictions)
- Support for Lead fish ranching programme, which is very successful in its initial phase and has high potential for further expansion
- Good communication with tourist angling lodges

## NEW PROJECT PHASE OUTPUTS

- Cross-border collaboration achieved in management of the fisheries resources.
- Management plan for the fisheries developed during Project Phase 1 successfully implemented (in collaboration with neighbouring countries) for the benefit of the communities.
- Fish Protection Areas established and fully functional in targeted pilot communities.
- Tourist angling lodges operating in agreement with local fishing/conservancy committees.
- Capacity built in research and monitoring of fish resource.
- Collaboration in next phase of NNF fish ranching project.

## WHAT NEXT?

### In Namibia:

- Continue to assist conservancies/committees to establish the Fish Protection Areas (FPAs), through MFMR, Traditional Authority and Regional Council.
- Assist in developing management plans for FPAs and agreements with lodges for catch-and-release fishing on payment of fees to communities
- Ensure revised regulations are approved to ban most destructive fishing gears.
- Guide communities to establish their own rules for their particular water bodies.
- Assist MFMR in extension and environmental education to ensure communities understand and agree their roles in managing the resources.

## WHAT NEXT?

### In Zambia:

- Unable to appoint additional project coordinator in Zambia because of financial constraints.
- Project to closely cooperate with Fisheries Department in Sesheke and with Western Province regional officer in Mongu.
- Promote communication/joint operations between fisheries departments in Zambia and Namibia.
- Assist Fisheries Department in strengthening communication with fishing communities.
- Explore role of Royal Establishment in assisting with strengthening community participation in management
- Explore potential role of existing Village Action Groups (VAGs) (set up for wildlife) in managing fisheries resources also.
- Agree harmonised regulations between Zambia and Namibia, particularly on destructive gears.

## MFMR: CAPACITY IN RESEARCH AND MONITORING OF FISH RESOURCE

- MFMR has appointed senior scientist at Katima Mulilo to work with the project
- This is major step towards achieving project goal and purpose
- Project has initiated links with external scientists and research institutions (UNAM & SAIAB/RU-DIFS) to set up research projects in collaboration with MFMR in Katima Mulilo to obtain further information on the dynamics of the Caprivi fisheries
- This is excellent opportunity to involve MFMR in active research, during which at least one MFMR scientist will be able to work towards a further degree in Fisheries Science
- Develop capacity and skills (a) for the future benefit of the ministry and (b) to improve the scientific information on which management of the fisheries is based

## MFMR: CAPACITY IN RESEARCH AND MONITORING OF FISH RESOURCE, cont...

The project recognises the need for both Fisheries Management and Capacity Building in MFMR, not just in Caprivi but in all freshwaters in Namibia. Management of internationally shared waters such as the Zambezi is also an important issue.

Lessons learned from the project in Caprivi may be applied elsewhere, particularly on the Kavango, and hence MFMR/Zambezi-Chobe Project is also looking at developing capacity for both research and management throughout the northern Namibian fisheries.

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

### 1. MINISTERIAL LEVEL MEETING WITH ZAMBIAN COUNTERPARTS

Needed to sensitise Zambian authorities and obtain the go-ahead for project to cooperate with Zambian organisations (Royal Establishment, ZAWA, KAZA, NGOs, etc.) and assist in collaboration with Zambian Department of Fisheries

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

2. MFMR RECOGNITION THAT FLOODPLAIN FISHERIES REQUIRE VERY DIFFERENT MANAGEMENT TO OCEAN FISHERIES

and

3. SENSITISE INSPECTORATE TO NEED FOR CHANGES IN APPROACH TO FLOODPLAIN FISHERY MANAGEMENT

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

4. APPROVE IN PRINCIPLE THE RECOGNITION OF THE FISHING COMMITTEES AND FACILITATE THE PROCESS OF ESTABLISHING THEM AS LEGAL ENTITIES

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

5. APPROVE THE REVISION OF THE LEGISLATION PROPOSED BY THE PREVIOUS PHASE OF THE PROJECT, INCLUDING:-

Simplification of laws to concentrate on banning destructive gears

For all other fishing activities: accept the principle of community management agreements at the local level

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

6. APPROVE, AND PROVIDE THE NECESSARY LEGISLATIVE SUPPORT FOR, THE ESTABLISHMENT OF FISH PROTECTION AREAS REQUESTED BY THE LOCAL COMMUNITIES

This includes providing initial active support by the Inspectorate to these communities to ensure that the aims and boundaries of these FPAs are recognised and respected

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

7. REVIEW, AS A MATTER OF URGENCY, THE CURRENT SYSTEM OF LICENSING...

Licensing is NOT a system of taxation! It is a mechanism for controlling fishing effort by controlling the number of licences issued.

The present system, whereby licences are issued by one person in the Regional Council, is unworkable. Only 16% of present fishermen are licensed!

Transferring responsibility to fishing committees/ community organisations/ traditional authorities/ angling organisations/ lodges will result in greater uptake of licences and will support a system of registration and management by the empowered communities. MFMR has a major role to play in the development of a workable system to replace the present unsatisfactory situation.

## INITIATION OF NEXT PHASE BY THE MFMR, WINDHOEK

8. GUIDE MAJOR ENFORCEMENT ACTIVITIES BY THE INSPECTORATE TOWARDS ADDRESSING THE DESTRUCTIVE FISHING METHODS IN THE MAIN CHANNEL AND ASSOCIATED LAGOONS AND BACKWATERS DURING THE LOW WATER PERIOD



## An example of co-management implementation in Malawi



National Aquatic Resource Management Programme (NARMAP)

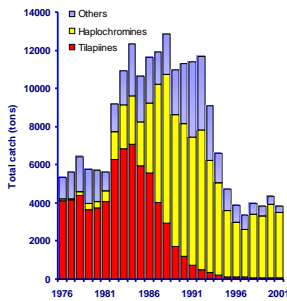


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### Catch 1976 -2001

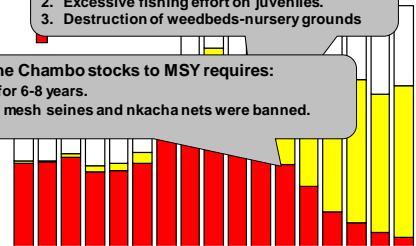


Declining chambo stocks attributed to:

1. Excessive fishing effort on adults.
2. Excessive fishing effort on juveniles.
3. Destruction of weedbeds-nursery grounds

Rebuilding of the Chambo stocks to MSY requires:

1. Total closure for 6-8 years.
2. 10 yrs if small mesh seines and nkacha nets were banned.



### Lake Malombe Fisheries Development

