

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

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

## Mid-Term Review of WWF-Norway Funded Project: Integrated Co-management of the Zambezi/Chobe River Fisheries Resources Project, February 2012



Project reviewer, Dr Weyl, at Lake Liambezi



Meeting at Impalila Conservancy



Abundant small fish species on floodplain



Fish from Lake Liambezi being dried for export

by: **Olaf Weyl**

Field Document no. MFMR/NNF/WWF/Phase II/7





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# Mid-Term Review of WWF-Norway Funded Project: Integrated Co-management of the Zambezi/Chobe River Fisheries Resources Project

Project No.: WWF –9F0792

WWF-Norway –Norad – 5012 - GLO-08/449-29

Project Name: Integrated management of the  
Zambezi/Chobe River System Fishery Resource Project

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Dr Olaf LF Weyl



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## Executive Summary

This project mid-term review was conducted in the week 21-28 November 2008. The review was based on the 2011 Technical Progress Report and supporting documents as well as on interviews with Project Executants, Ministry of Fisheries and Marine Resources (MFMR) staff, conservancy members, the Natural Resource Adviser to the WWF in Namibia, angling lodge owners and the chairman of the local angling club.

In summary, the project which, through community participation aims 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, remains highly relevant.

The Project Technical Progress Report provides reference to verifiable evidence that here has been significant progress with regards to developing local fisheries management committees and implementing management actions and the current achievement of planned activities is in line with that planned.

There is strong commitment to the project in Namibia where there is continued willingness of the local communities, the MFMR, recreational anglers and other stakeholders to take part in the project. Here the project has facilitated the development of local management in collaboration with multiple stakeholders. The project has also set up a catch monitoring system and continues to engage with national and international partners in executing project activities. In addition, the project was able to facilitate successful funding of research implemented by the University of Namibia, the South African Institute for Aquatic Biodiversity (SAIAB) and the National Research Foundation of South Africa. Zambian involvement in the project unfortunately remains limited but efforts are underway to secure buy-in from the Department of Fisheries in that country and strong linkages with the WWF and African Wildlife Foundation in Zambia are being developed.

The review concluded that the project was mostly progressing as planned with 67% achievement. As the project is nears completion at the end of 2012 it is important for the project to consolidate current activities.

With regards to project interventions in legislation, community group engagement, research and project reporting and replication, the review makes the following recommendations:

- There has been some frustration with obtaining signatures from the minister for the management plans from the conservancies. The project should continue to lobby for support from the ministry and politicians through the use of meetings, positive press releases and through invitations of politicians to community meetings.
- There is a need to continue the active engagement with the MFMR policy division in including the project recommendations for changes in the Inland Fisheries Act and Regulations.
- Community based natural resource management initiatives such as the current project require long-term support. The project should therefore attempt to engage with other

regional initiatives such as the KAZA programme.

- The project, in its final year, should ensure that the baseline data, reports and tools necessary for the replication of the project elsewhere are available and filed in a numbered system.
- The project should take considerable care to ensure that all initiatives relating to the conservancies are driven by the community group. This may require the project playing a more passive role in the facilitation of meetings. This is important for ensuring the acceptance of the committee on a wider community level. In this regard, all projects and employment funded by the conservancy should be channelled through the conservancy account so that the benefits derived from the conservation initiatives are clear and transparent.
- Prior to the completion of the current project phase it is recommended that the structure and function of all community groups supported by the project be evaluated.
- Interviews with the community and discussions with the WWF natural resource advisor made it clear that support would be required to community groups, not only with accessing benefits but also for packaging this information so that the committee could provide effective feedback to its members at the AGM.
- The project should help develop appropriate communication media to ensure that conservancy committees are able to effectively communicate their activities to members and stakeholders at the AGM. This will include the development of a monitoring system which could include methods developed in the events book used for wildlife.
- The project should consider taking the fisheries committees to visit other successful conservancies to view community owned tourist facilities and so that they could exchange ideas on potential income sources and implementation measures.
- The project should facilitate the development of suitable pamphlets and posters highlighting conservancy approaches and successes which can be used to lobby for support and make use of the media to inform the public of project successes.
- The project should continue to promote strategies for revenue sharing from angling license sales and the devolution of the responsibility for licensing to local communities.
- The project should make use of its research collaborations and its own research and monitoring projects to provide information on the current state of the resource and to provide biological and social baseline information on the project through:
  - Facilitating the assessment of available fisheries monitoring data to provide a report on the status of the fisheries at the end of 2012.
  - Developing a statically sound but locally appropriate catch assessment system. In developing this system, project experiences with fish monitors need to be considered and the system should include not only a database for the storage and analysis of the data, but should also make strong recommendations on the sampling strategy and frequency necessary for statistical rigour.
  - Facilitating a 2012 frame survey to determine the current fishing effort and assess to what extent the fishery is developing. Here the project should also investigate linkages with the annual aerial game count during which numbers of canoes could also be assessed.

- Take a proactive role in ensuring that the research results from the three research projects are communicated to the fisheries management authorities.
- Aid in the development of research proposals and engage research partners in undertaking research on possible unexploited fish resources developing in the offshore zone of Lake Liambezi.
- Aid in the development of research proposals that aim to better understand the social and economic impact of fisheries in rural communities in the Caprivi region.
- In its final year, the project should attempt to consolidate all reports and associated information and data in a central database to provide the basis of project replication.
- Despite the discontinuation of support to fish ranching in 2011, I suggest that the project plans a final assessment of the costs and benefits of fish ranching to communities and implementers.
- The project should develop “toolbox” and “lessons learnt” documents that could be used as manuals in the process of fish conservancy and FPA formation.
- The project should consider a repository or database for all raw data collected during project-funded research such that these are available for assessment after the completion of the project.
- The project should develop a final monitoring and evaluation report in which suitable indicators for the long term assessment of project impacts are evaluated and project data are used to develop a baseline against which current and future project impact can be measured. Such baseline data could include incident data from enforcement patrols, income for communities, biodiversity inside and outside FPAS, catch rates and harvest volumes, average size of fish harvested and the number of committees or area of river under conservancy control.

## Mid-Term Review

### Relevance and Quality of Project Design

#### Project goal

The Integrated Co-Management of the Zambezi / Chobe River Fisheries Resources Project aims to contribute towards the sustainable utilization of fisheries resources in the Caprivi Region through support at various levels of the fisheries management process but particularly at the community level.

Fisheries are a major contributor to livelihoods in the Caprivi region, employing thousands of people that are involved in the harvesting, processing and marketing of at least 3000 tons of fish with a value of N\$ 100 million in Namibian waters alone (Tweddle 2009a). In addition, angling-motivated tourism contributes not only towards the provision of formal employment in the region, but also provides considerable economic benefits at a regional and national level through associated expenditures and taxes (NNF 2010).

There is clear documented evidence of over fishing in the region and the 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”*, remains highly relevant.

#### **Box 1: Integrated co-management of the Zambezi / Chobe River fisheries resources**

##### **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

##### **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.

##### **Output 1**

Cross-border collaboration in management of the fisheries resources.

##### **Output 2**

Management plan for the fisheries developed during Project Phase 1 successfully implemented (in collaboration with neighboring 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

## **Project purpose**

The 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”*, adequately addresses the project goal and by focusing on well defined conservancies, is achievable.

## **Value of the project intervention in relation to WWF’s Global Programme**

### **Framework**

Situated in the Miombo Region, one of the WWF priority places, and by empowering communities to manage their fisheries resources, the project contributes not only to the conservation of fish diversity but also to providing sustainability in the natural resource base upon which the riparian communities depend, the project contributes towards the WWF 2020 Biodiversity Goals (*“Places - Biodiversity will be protected and well managed in the worlds most outstanding natural places”*). This is because the development of local fisheries management institutions guided by fisheries management plans based on appropriate research results will result in sustainable resource utilisation. In addition, the Fish Protected Areas (FPAs) designated during the project will not only provide refuge for commercially important fishes but also protect representative portions of the aquatic ecosystem by providing refugia from the disturbance caused by fishing.

### **Implementation strategies**

To achieve the project purpose, the project aims to provide support at all stakeholder levels and key strategic areas of support are: (1) the development of supporting legislative processes required for the legal status of the Conservancies; (2) the development of management recommendations based on sound research; (3) the development of a monitoring framework essential for making management decisions regarding fisheries and measuring successes of project interventions; (4) the development of research and implementation capacity and (5) the promotion of national and international linkages between user groups. Broadly outputs can be evaluated under the themes of Community empowerment, research support and legislative support.

### **Community empowerment**

The project facilitates the empowerment of communities to manage their resources primarily by engaging with local management groups in Conservancies. Because the fish resources in the main rivers of the Caprivi Region form international boundaries, the project strategy includes cross-border collaboration in management of the fisheries resources (Output 1) and continues to attempt to implement fisheries management measures in collaboration with neighboring countries for the benefit of the communities (Output 3). The main tool for this is by support to communities in demarcating Fish Protected Areas or FPAs.

The establishment of FPAs through community engagement is a major component of project implementation (Output 3) and Conservancies, which exemplify typical fisheries management issues in the Caprivi Region have been integrated into the project.

The Kalimbeza channel (Sikunga Conservancy) and the Kasaya Channel (Impalila Conservancy) both experience heavy over-fishing as a result of cross border incursions by fishers from Zambia. This has impacted not only on the livelihoods of the local community directly through



low catch rates, but is also by affecting angling based tourism. In these cases the project, like many CBNRM interventions, was invited by the community to assist because of extant resource problems. The project has engaged multiple stakeholders in the empowering the conservancy committees to manage their resources. These stakeholders include not only government and traditional organizations but also local angling clubs and fishing lodges.

The inclusion of Lake Liambezi in its community management initiative provides the project with the opportunity to develop a management plan for a fishery prior to its becoming over fished. The fishery on the recently filled Lake Liambezi is currently booming and the communities request for assistance in the management of this resource (in order to sustain the high current catch rates) is a unique situation and exemplifies high regard in which communities have for the project.

Management support differs from conservancy to conservancy but collectively has included:

- Development of management plans during a workshop organized by the project that included all key stakeholders, including angling and tourism interests including stakeholders from Zambia.
- Guiding the formal process for the Minister to ratify the FPAs.
- Assisting in sourcing funds through both NGO and private sectors for the conservancies to actively manage the FPAs.
- Collaborating with the MFMR in the formation of the FPAs through involvement in community and conservancy engagement, data collection and planning activities.
- Gaining project recognition from the ministry and gaining support from the head office in Windhoek. As a result, the MFMR is providing financial support through contributions to running costs in associated activities such as data collection, traveling expenses and office space for project staff working on the fish market survey.

## **Research support**

The project supports research intended to provide information that is relevant for the management of the fishery. This is done both by project initiatives as well as through building strong collaborations with other research institutions including the Kamutjonga Fisheries Research Institute (KIFI), University of Namibia (UNAM) and South African Institute for Aquatic Biodiversity (SAIAB).

A major project initiative is the implementation of a catch assessment system to provide base line data for fisheries management. This project intervention was necessary because no historical catch data were available for the Caprivi fisheries. Data from the project were recently used to estimate that the total fish yield from the Namibian section of the Caprivi floodplains was in the order of 3000 tons and had a market value of N\$100 million.

On a national and international level the project has played a major role in partnering with various research institutions to develop proposals and assist in successful grant applications. These include collaborations with the University of Namibia (UNAM) on a NORAD funded fisheries capacity development project, the collaborations with UNAM and SAIAB in the implementation of the ICEIMA project, Nedbank funded Go-Green project and the

Namibia/South Africa partnership project on Lake Liambezi Research funded by the National Research Foundation of South Africa and the Ministry of Education in Namibia and the MFMR.

Results from these research projects are being integrated into the fisheries management plans and have resulted in suggested amendments in existing legislation. In addition, by engaging with national and regional higher learning institutions the project is contributing towards the building of national research capacity which, in the long term, will ensure that Namibia can continue to develop proactive approaches for the management of its fisheries resources. A short summary of the current research collaborations is provided in Box 2.

## **Box 2: Fisheries Research initiatives**

### **Project 1**

#### **Ecology and management of the Caprivi floodplain fisheries**

**Source:** National Research Foundation (South Africa)/ Science and Development Namibia

**Period:** 2010-2012

**Value:** ZAR 163000 (SA) + matching Namibia contribution (Namibia)

**Researchers:** OLF Weyl (SAIAB), E Omoregie (UNAM), R Peel (UNAM), D Tweddle (NNF/SAIAB), N James (SAIAB).

**Objectives:** To understand the dynamics of recolonisation processes in previously desiccated environments. The research results from this project will contribute to developing proactive response strategies to react to both natural (annual flood cycle fluctuations) and human-induced (fishing) changes in the fishery. This will provide information for best management practice in the floodplain fishery and allow for an assessment of the vulnerability of rural people to environmental change processes such as climate change.

### **Project 2**

#### **Comparative biology of four cichlid species in the Okavango, Kwando and Chobe/Zambezi River systems.**

**Source:** Namibia Nature Foundation; Government of Namibia; University of Namibia

**Period:** 2010-2011

**Value:** approx. ZAR 200,000 with all contributions

**Researchers:** OLF Weyl (SAIAB); E Omoregie (UNAM); R Peel (UNAM); E Simasiku (MFMR).

**Objectives::** Undertake biological assessments of four large cichlid fish species *Oreochromis andersonii*, *Oreochromis macrochir*, *Tilapia rendalli* and *Serranochromis r. jallae* in the Okavango, Kwando, Lake Liambezi and Zambezi/Chobe Rivers to provide information for fisheries management.

### **Project 3**

#### **Towards a holistic management strategy for the fisheries of the Zambezi River and Eastern Caprivi Floodplains.**

**Source:** Namibia Nature Foundation; Nedbank Go-Green fund; Government of Namibia; UNAM

**Period:** 2010-2011

**Value:** approx. ZAR 200,000 with all contributions

**Researchers:** OLF Weyl (SAIAB); E Omoregie (UNAM); R Peel (UNAM); E Simasiku (MFMR).

**Objectives::** to undertake research into the dynamics of floodplain fisheries and particularly into the re-colonisation of Lake Liambezi with fish in order to understand the dynamics of re-colonisation and fish invasion processes in previously desiccated environments. The research results from this project will also develop the basis developing proactive response strategies to react to both natural (annual flood cycle fluctuations) and human-induced (fishing) changes in the fishery. This will provide information for best management practice in the floodplain fishery and allow for an assessment of the vulnerability of rural people to environmental change processes such as climate change.

## **Legislative support**

As part of the implementation strategy, the project has made very detailed recommendations for amendments to the current regulations to improve the efficacy of the Namibian Inland Fisheries Act (2003). This legislative support is intended to ensure that the rights of the

community (through conservancies) to manage their resources are entrenched in legislation. This is considered a fundamental requirement because legislative support is necessary for the full functionality of the primary project partners (i.e. local fishing/conservancy committees). At the time of writing, these recommendations are with the MFMR headquarters and it is understood that further discussions on the process will take place in January, after the Project Executants held discussions in Windhoek with senior MFMR staff after submission of the draft of this review. The project's approach and proposals are strongly endorsed by this mid-term review.

### **Project monitoring system**

The monitoring system has clear and verifiable indicators and reports are available for all outputs in the LFA presented in the Project Technical Progress Report (Tweddle and Hay, 2011, Appendix 1). These indicators (meeting reports, management plans and comments to legislation) demonstrate that there has been significant progress with regards to developing local fisheries management committees and implementing management actions.

## **Evaluation of project assumptions and risks**

### **Assumptions**

The project proposal, developed in 2009, considered that the successful implementation required that 9 assumptions were fulfilled. The assessment of their current state and relevance to the project follow.

#### **Assumption 1: The Fisheries Departments (Namibia and Zambia) are committed and make available the necessary resources (staff, funds, office space in new MFMR office at Katima Mulilo and equipment) for the Project.**

This assumption is only partly met. In Namibia, the project enjoys full support at the managerial level of the MFMR and many of the research activities have been carried out collaboratively with MFMR staff at no cost to the project. There is also commitment towards the provision of office space once the new Katima Mulilo offices are completed.

Zambian involvement in the project remains limited. This was a recognized risk in the project proposal (Risk 1). Continued efforts to engage with the Zambian Department of Fisheries and NGOs active in the region are being made by the project and need to be continued through the remainder of the project. With the establishment of the Kavango Zambezi Trans Frontier Conservation Area (KAZA) with its new office in Kasane and its highly motivated staff, the establishment of strong links with that organisation should be explored. The project should develop the links it has already established with the KAZA office, and play a leading role in establishing fisheries management and research programmes in the KAZA area.

It should be recognised that Zambian support for the FPAs in Namibia is not a necessity for their successful establishment. As a result the project should take care not to over-invest time and resources in trying to secure Zambian commitment at the implementation level but should rather focus on getting the Namibian committees and conservancies fully operational.

**Assumption 2: Staff from the MFMR Katima Mulilo office are fully involved with the activities of the project.**

During my evaluation, the Project Executant (PE) informed me that despite attempts to work closely with the two MFMR Directorates, i.e. Aquaculture/Inland Fisheries and the Inspectorate in the Directorate of Operations, their participation was sporadic. The imminent completion of the new MFMR offices in Katima Mulilo will allow the project office to move into MFMR and this will greatly aid direct involvement of the MFMR in the project on a day-to-day basis.

In the evaluation interview, staff in the Katima Mulilo MFMR office were very positive about the project. They said that while the MFMR had not involved itself adequately in the fisheries committee formation and organisation in conservancies, they were impressed with progress made, particularly in the Kalimbeza channel. As a result, the lack of involvement by the MFMR at a local level stems mainly from local issues rather than from the overall commitment of the MFMR (see Assumption 1). Main problems are linked primarily to the limited support received by the project from the Directorate of Operations and the lack of action regarding the licensing system and legislating to empower the communities and particularly the conservancies to take on management responsibilities. With a change in the enforcement staff in 2010 and again in 2011, there does however appear to be an increase in the level of commitment by the MFMR at the local level. As a result, MFMR involvement in the project gained momentum, but more MFMR participation, particularly in community engagement and in supporting the conservancies in their aims to reduce illegal fishing is desirable.

**Assumption 3: A Fisheries Biologist is appointed at the Katima Mulilo office.**

A Senior Fisheries Biologist (Damien Nchindo) has been appointed in the Katima Mulilo office and staff are participating in various monitoring components of the project, particularly in catch surveys. The research is also supported by staff from KIFI staff that undertakes quarterly monitoring trips to project area as well as through strong collaborations with the UNAM and SAIAB. The evaluation considers that the project has been particularly successful in forming strategic alliances with national and regional research institutions to obtain the research results necessary for its implementation (e.g. to make recommendations for minimum mesh size). It is also recommended that continued attempts be made to involve the appointed Senior Fisheries Biologist in project driven research.

**Assumption 4: A qualified and experienced executant can be recruited to run the Project, thereby providing dedicated inputs towards implementing, planning and reporting for the Project.**

**Comment:** The project has recruited two Project Executants (PEs), Mr Denis Tweddle and Dr Clinton Hay. Due to other commitments that do not allow the PEs to take on full time project posts, Mr Tweddle and Dr Hay alternate their inputs in the project. This has worked well as both have considerable and complementary experience in fisheries research and the development and implementation of fisheries research, monitoring and management programmes in southern, central and eastern Africa. Dr Hay's 20-year direct association with the MFMR in Namibia, and Mr Tweddle's broad knowledge of floodplain fisheries elsewhere in the Zambezi system, have been invaluable. In addition, the executants have made use of their extensive contacts in Africa and abroad to source external expertise when required. This has

resulted in a well run project that enjoys considerable buy-in from all stakeholders and has an excellent reporting track record.

**Assumption 5: The Regional Government, Traditional Authorities (both Namibia and Zambia) and other interested parties co-operate in the studies and discussions at regional level.**

There is sufficient evidence showing that there is continued discourse between stakeholders at all implementation levels. For example, the management plan for the Sikunga conservancy was developed at a stakeholder workshop that included committee members, lodge managers, members of the local angling club, traditional authorities and local government. The project has also facilitated various meetings with Zambian and Namibian authorities. During the course of the current evaluation, a meeting involving all stakeholders from both Zambia and Namibia was being planned by community members to coincide with the Zambian fishing ban.

In Namibia, it was evident from interviews that there was considerable co-operation between communities, traditional authorities, angling lodges, angling clubs and the ministry in discussions. The only potential stakeholders that were not sufficiently involved were the local politicians and the evaluation recommends that the project actively lobby with local politicians for their support.

**Assumption 6: The Department of Fisheries in Zambia delegate personnel to take part in the Project, as part of their employment duties, which will ensure the flow of information to the stakeholders in Zambia.**

This assumption is not met. However, as a result of continued lobbying by the PE with the Zambian authorities, agreement was reached for the project to engage in collaboration with all relevant stakeholders in Zambia and WWF in Zambia is now assisting DoF in the area to develop management plans including protected areas. This has resulted in the Department of Fisheries office in Sesheke now holding regular meetings with MFMR counterparts in Katima Mulilo and Joint patrols were carried out (Namibia & Zambia) on the Zambezi and (Namibia & Botswana) on the Chobe Rivers. Further, the project facilitated the first meeting of the fisheries sub-committee of the Namibia/Zambia Joint Commission in 2011 and used the opportunity to hold a workshop to create awareness of the project's goals and activities and to strengthen links between organisations active in the area.

**Assumption 7: Recruitment of suitable staff from the local communities (Namibia and Zambia) to ensure involvement of stakeholders for the Project.**

In Namibia, the project has made considerable contributions to the employment of staff from local communities by employing at least 16 people from the local community, four market monitors, two development officers and ten fish monitors. The fish monitors were selected from and by the relevant fisheries communities to be employed by the project. In addition to their monitoring programmes, those in Impalila Conservancy carry out other duties under the direction of the conservancy office. This employment has resulted in further employment opportunities and one of the development officers trained by the project is now permanently employed by the MFMR. The project is currently in discussions (informal at this stage) with MFMR and the conservancies on how to continue their employment beyond the project time frame. An initial data and information sharing workshop held by the project was well-received and is to be followed up by developing a long-term monitoring programme for MFMR. Direct

employment of monitors/guards by the conservancies themselves is also under discussion.

**Assumption 8: There is a continued willingness of local communities to take part in the Project and to test and evaluate proposed new management systems.**

The willingness of the local communities to take part in the process was demonstrated at the two Committee meetings attended, from interviews with lodge owners operating in the conservancies and from the angling clubs. In addition several conservancies have approached the project to assist with fisheries management.

**Assumption 9: The MFMR remains willing to devolve fishery management responsibilities and benefits to local community institutions, including conservancies (as stipulated in the White Paper on inland fisheries).**

While there appears to be high level MFMR commitment to devolve power to fishing communities there is resistance in some sections of the MFMR. The reason for this is unclear. However, the document for FPAs is now with the minister and all indications are that the MFMR is officially supporting the formation of fisheries committees in conservancies and the formation of FPAs. Agreements and ratifications at Ministerial level should allow for the devolution of power to fishing communities and internal resistance and agendas will become irrelevant. At the time of writing, the project's recommendations are with the MFMR HQ and it is understood that further discussions on the process will take place in January, after the Project Executants held discussions in Windhoek with senior MFMR staff after submission of the draft of this review.

## **Risks**

The project document cited risks to the success of the project. These were related to (1) Zambian involvement; (2) legislative processes and (3) implementation issues.

**Risk 1: Full support and involvement from the Department of Fisheries in Zambia can be problematic and plagued with bureaucracy that slows project progress.**

As mentioned under Assumption 1, the support and involvement of the Zambia Department of Fisheries remains problematic. However, through active engagement with the Zambian Department of Fisheries in various meetings the project has secured high level Zambian support for its initiatives and is having considerable impacts on trans-boundary management initiatives. The evaluation therefore considers that the project should focus on developing the process for community based fisheries management through Namibian conservancies while keeping the Zambian and Botswana Departments of Fisheries informed. In addition, future transboundary initiatives should be explored under the KAZA banner.

**Risk 2: The proposed amendments to the Inland Fisheries Resources Regulations for the devolution of power to the Fisheries/Conservancy Management Committees are not endorsed by the MFMR. The project should facilitate the process and provide all information to validate these changes.**

The project has made comment and provided motivation for additions and amendments to the current legislation to the Inland Fisheries Act of 2003 (Republic of Namibia 2003 a,b,c) with regard to: (1) The inclusion of conservancies to the recognised authorities under the Act; (2)

facilitatory statements for passing of area specific bye-laws and (3) amendments to existing regulations based on research results.

In the project technical progress report, Tweddle & Hay (2011) states that: *“the proposed changes to the legislation and regulations need further discussion. While the principle behind this has been accepted by the MFMR, more substantial progress is needed, including amendments to both Conservancy Act and Inland Fishery Act regulations to harmonise them in relation to fish as part of the natural resources. Initial indications are that some, but not all, of the project’s recommendations have been taken into account. The project is currently seeking clarification on the proposed amendments.”*

The project therefore recognises that the proposed legislative and policy changes may take considerable time to implement and will require considerable political lobbying, such as the meetings with senior officers in MFMR HQ held after submission of the draft of this review. It is envisaged that, by the end of next year, at least some of the proposed changes will be implemented. In addition, the project continues to lobby for support from the Minister and has prepared FPA Management Plans for ratification.

Meanwhile, the conservancies are going ahead with developing management systems for the FPAs in close collaboration with other stakeholders, and with information dissemination about the establishment of the FPAs. They have indicated that they not prepared to accept further delays and are prepared to address the Minister directly if necessary. This indicates strong commitment by the communities to the project and I believe that, to date, delays in legislative support have not impacted on project progress. However, in the long term, legislative support is necessary for the sustainability of the institutions set up by the project.

### **Risk 3: Inability of fish guards to implement agreed regulations in the face of aggression by fishermen with illegal gear.**

This risk is being addressed by the current project. Already there is considerable commitment from the local angling fraternity to employ five fish guards. However, back-up from the MFMR enforcement section is critical for the success of the FPAs. This is because the MFMR has legal enforcement rights and as an outside organisation, is less prone to reprisals than community members or lodge managers. Discussions with fishing lodge managers, for example, indicate that they worry about their safety when enforcement measures are initiated. Presently these lodges give considerable support to the Conservancies and as a result may become targeted when conflicts arise. It is of utmost importance that the FPAs and associated activities are seen as community initiatives that are backed by government. Lodge support, while important, should be given via the conservancies to avoid the impression that Lodge owners are driving the process.

The lack of support from the Inspectorate, which in the past (according to the perceptions of all lodges and angling organisations) has focussed largely on recreational anglers, has been a problem for the project. However, more recently, the enforcement division has focussed more strongly on providing support to the Conservancies and it is likely that previous difficulties are being resolved. The final analysis of this risk will, however, only be possible after the first closures have been effected and active community policing commences.

## **Meeting stakeholder expectations**

All interviewed stakeholders were highly supportive of the project. This is demonstrated not only through interviews but also through actions. The conservancies have started implementing fisheries management activities, and on Lake Liambezi, where over fishing is not yet a problem.

## **Project alignment with donor or government projects and programmes**

The project continues to be aligned with the Namibian Government's policies that emphasise the role of conservancies in managing natural resource. The project collaborates strongly with the MFMR, the University of Namibia, SAIAB and the newly established KAZA project. In Zambia the project also collaborates with the African Wildlife Foundation (AWF) which it is assisting with integrating fisheries in their conservancy approach. Major alignment is made with the WWF in Namibia initiatives on conservancies where the fisheries component is only one of the conservation and income streams.

## **Effectiveness (Achievement of purpose)**

### **Assessment of the major achievements**

On assessment of the LFA and interviews with stakeholders the evaluation finds that the project has made significant progress towards achieving its intended outcomes by delivering against all major outputs.

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

Some cross border collaboration in the management of fisheries resources in being achieved through project support. The project has, actively engaged with potential Zambian counterparts through: (1) involvement in an IRDNC-led workshop for the communities on both sides of the river to plan joint activities in natural resource management; (2) the facilitation of a workshop in January 2011 for the fisheries sub-committee of the Namibia/Zambia Joint Commission; (3) a visit by the PE to the Department of Fisheries Headquarters in Chilanga to discuss the results of the workshop and to plan the way forward for future collaboration. As a result of this, agreement was reached for the project to engage in collaboration with all relevant stakeholders in Zambia and WWF in Zambia is now assisting DoF in the area to develop management plans including protected areas.

The project also assists the Namibian conservancies to meet and exchange ideas and information with their counterparts in Zambia, e.g. Sikunga Conservancy with Inyambo Trust (together with the Royal Establishment at Mwandu Khuta), and Impalila and Kasika Conservancies with the Sekute Trust.

The Department of Fisheries office in Sesheke now holds regular meetings with MFMR counterparts in Katima Mulilo and Joint patrols were carried out (Namibia & Zambia) on the Zambezi and (Namibia & Botswana) on the Chobe Rivers.



The newly-established KAZA office in Kasane is now viewed as a major prospective partner for cross-border initiatives and the Project Executant has initiated dialogue with implementers in the KAZA project.

**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.**

The overall management plan produced at the end of the previous phase has formed the basis for the development of management structures for the conservancies in developing FPAs and for collaboration between affected stakeholders. The latest LFA (Tweddle & Hay, Sept 2011) indicates that some local fishery management structures are now fully supported and management plans developed for communities are in the final stages of rationalization by the ministry. A total of five committees have been formed in Caprivi and the success of the project is demonstrated by the project receiving three additional requests from communities to assist with FPA in their areas.

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

Letters have been signed by Impalila and Sikunga conservancies to manage their own FPAs and requests have been approved by Regional Council and Traditional Authority. The minister has approved FPAs verbally, dependent on production of management plans which have now been developed in a multi stakeholder workshop and have been submitted to Minister for ratification. The project is also negotiating with NGOs and private sources for funding management of FPAs by conservancies.

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

Several meetings have been held between lodge owners and fisheries committees in conservancies. The Lodges, Nwanyi Angling Club and communities fully agree on FPAs and the angling club is actively engaging with conservancies to draw up management agreements. The angling club has also verbally promised considerable financial support to the Conservancy through the employment of fish guards, revenue from the Zambezi Classic and from member contributions. In addition, some Impalila and Zambian lodges are already paying the conservancy for the right to fish in the Kasaya Channel FPA and the Sekoma Lodge, Zambia, provided Impalila Conservancy with a boat engine to control the Kasaya Channel FPA.

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

Monitoring capacity is being developed by the project at various levels. Communities, for example, are encouraged to keep registers of fishers. Catches are being recorded by six monitors that are directly employed by the project on floodplain fisheries and market catches are being assessed by four market monitors employed by the project.

The project is also actively engaged in capacity building of MFMR researchers and has facilitated a workshop at KIFI for training MFMR researchers on how to prepare fish otoliths for ageing analysis. More recently, a workshop was facilitated where catch monitoring data were evaluated together with MFMR staff to determine the annual yield from the Namibian section of the Caprivi floodplains.

In addition, the project assisted with three research proposals, all of which are now funded and contribute towards one MFMR staff member (E. Simasiku) and a Zambian MSc student (Richard Peel) being registered for MSc degrees and conducting research into the biology of exploited fishes.

The project has extended and improved the catch monitoring system and, for the first time, an estimate of the annual harvest from the Caprivi floodplain fisheries is available. These data, in combination with data from the market monitoring programme are beginning to be translated into management actions.

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

The project has discontinued support to this project and a final evaluation is recommended.

### **Conservation and socio-economic achievements**

Measurement of success in providing socio-economic conservation benefits can only be done in the long-term after management systems have been fully implemented and destructive fishing methods curbed. This has always been stressed, e.g. the final report of the previous project phase stated that: *“ To counteract the present tendency to overexploit the resources will take much longer than the present project. The groundwork has effectively been laid for progress towards achieving the project goal and purpose, but it will take a longer-term commitment to develop effective management systems that will lead to the goal being achieved.”* This remains true, with the current phase making good progress in the development of such systems.

### **Have project biological monitoring data been appropriately recorded, stored and disseminated**

Reports are all available and biological monitoring data are continuously being collected and compiled. While project reports are available on CD and hard copy, I strongly recommend that these be collected in a central database, a process recently initiated by Dr Hay. To facilitate this, a logical numbering system needs to be developed. This database could also be used to store the raw data from monitoring surveys such that these are available for future research. It is important that the project compiles all data in useable reports by the end of the project phase and makes these available on the web, CD and as hard copies.

### **Is the project failing in any respect, and if so explain why?**

In this mid-term review I could not find any failings with the current project. Delays in amendments to the legislature do not pose significant long term risk to the project after it comes to an end in December 2012 as it is likely that proposed changes will be implemented during the course of the project. However, the project should consider that it have been overly optimistic in the rate at which all changes in legislation can be effected, especially as these are beyond the project's control.

Support to fish ranching initiatives (Output 6) was considered ineffective and the project discontinued activities. This has allowed for a stronger focus on the fisheries management aspects of the projects which are more relevant to developing sustainable fisheries in the

region. With regards to Output 6, I suggest that the project plans a final assessment of the costs and benefits of fish ranching to communities and implementers, documents this and hands the component over to the MFMR which has a direct aquaculture focus.

## **Implementation status of recommendations from 2006-2009 phase of the project**

During the evaluation of the previous 2006-2009 phase of the project, a number of recommendations were made (see Appendix 4). After discussions with the Project Executant the status of implementation of each of these is as follows:

- The management plan developed during Phase 1 should be translated into Silozi and discussed with the fishing communities.

The translation into Silozi was not done. The key components of the plan have, however, been closely incorporated into the conservancies' own management plans for the protection of their resources, which at this stage focuses primarily on the Fish Protection Areas but is now in the early stages of being expanded to include fishermen registration exercises in order to establish fisheries ownership and fishing rights.

- Simplification of the proposed fisheries regulations.

The project has made very detailed proposals for modifications to the act and regulations. Many of the proposals are now incorporated into the Ministry's own revision, including a ban on monofilament nets and a proposal for a night curfew.

- Following development of the new comprehensive management plan, and with agreements on the way forward for community management and on local regulations, a new version of revisions of the Act and regulations should be drafted with legal advice, and enactment of these revisions should be given high priority by MFMR.

The MFMR is currently engaged in revision of the Act and Regulations, with a high level meeting of directorates scheduled for January 2012 to review progress.

- The system for issuing fishing permits must be reviewed.

MFMR has recognised the importance of devolution of licensing and included it in the proposed revision of Act and Regulations. The project has played a major role in raising awareness of the issue. The latest draft seen by the project and this reviewer does not yet, however, list conservancies alongside traditional authorities and therefore the project continues to press for this addition.

- Issues identified during the assessment of the recreational fishery must be followed up.

Awareness of angling and tourism importance has been greatly enhanced. The project conducted and published a comprehensive economic survey of the tourism lodges and their

contribution to the local economy<sup>1</sup>. The project has also played a major role in bringing together all stakeholders, i.e. conservancies, lodges, Nwanyi Angling Club, and angling guides in Botswana to raise awareness of the value of tourism and assist the conservancies to develop agreements with the angling/tourism sector for fishing rights in conservancy waters and FPAs. Currently, the project is also supporting the conservancies in raising awareness of the FPAs in Zambia. One of the Zambian lodges, Sekoma Lodge, is actively supporting Impalila Conservancy to control the Kasaya Channel FPA, supplying the conservancy an outboard motor for patrols and paying fees to the conservancy for anglers fishing and practicing catch-and-release in the channel. The project also liaises with the Department of Fisheries, African Wildlife Foundation, and WWF to develop protected areas in Zambia. The Zambian initiative is guided by Dr Nyambe (former project executant in the first phase of this project). The project has assisted with full documentation of the process by which FPAs are being established in Namibia.

- The next phase to this project should be a joint project between Namibia and Zambia, operating with the full confidence and participation of senior officers in the Zambian Department of Fisheries...

Funding limitations prevented a permanent project presence in Zambia. The project has instead facilitated the establishment of the cross-border commission fisheries sub-committee; held discussions with DoF HQ in Chilanga; assisted the Namibian conservancies in establishing cross-border links with their Zambian counterparts and with the Traditional Authority/Royal Establishment, and liaised with AWF and WWF over their initiatives for protected areas. Recognising that more needs to be done in terms of cross-border links and partnerships, the project has opened discussions with the KAZA Technical Adviser in Kasane, Dr S. Munthali, to develop new initiatives. In addition, the project is now actively developing new project/programme proposals through various sources to expand activities to other fisheries in the region.

- The project should be guided by a steering committee incorporating senior officers from the three countries. This should meet frequently (at least twice yearly and preferably quarterly) to review progress and make recommendations for modification to the workplans if necessary...

No formal steering committee was established but the Project Executants maintain close links with senior MFMR officers as well as NNF and WWF to discuss progress and adapt to changing circumstances.

- Technical assistance should include a fish and fisheries specialist and in addition a specialist in CBNRM...

Financial restrictions limited the project to one specialist post of Project Executant. This post is shared between two highly experienced fisheries experts with complimentary skills. Mr Tweddle has 40 years of experience in African inland fisheries including Zambezi floodplains, primarily in fish and fisheries research, but also with experience in working with fishing communities. Dr Hay has 20 years of experience in Namibian inland fisheries through holding senior posts in MFMR.

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<sup>1</sup> ANON, 2010. A preliminary economic assessment of the contribution of fishing lodges in the Caprivi Region to the local economy. Integrated co-management of the Zambezi/Chobe River fisheries resources project Document prepared for submission to the ministry

- The project emphasis must be on empowering the fishing communities/conservancies to manage the fisheries on a localised basis, including responsibility for licensing of fishermen and/or fishing gears.

The project continues to work towards these goals. IRDNC, a local NGO, is experienced and successful in guiding conservancies in CBNRM. The current project has initiated close links with IRDNC and appointed two officers trained through the project to assist IRDNC in fisheries matters. The new phase of the project should continue to provide close support to IRDNC to develop CBNRM. While the link through the two fisheries development officers that were initially embedded in IRDNC was discontinued as their activities did not easily slot into the IRDNC framework. The project, however, continues to maintain close links with IRDNC and contributes actively to IRDNC meetings and workshops with the relevant conservancies, to ensure that fisheries maintain a high profile along with other natural resources that conservancies have mandates to manage, such as wildlife and forestry.

### **Stakeholder views on the project.**

During the mid term evaluation, I met with various stakeholders including MFMR staff, researchers from KIFI, angling club chairman, lodge managers and Sikunga community members. The overall mood was extremely positive.

### **Conservancy members**

Interviews with the management committee of the Sikunga and Impalila conservancy indicated that the committee was exceptionally proud of their achievements and definitely see this as THEIR initiative. They were looking forward to gaining the benefits from the conservancies and recognized many of the potential benefits arising from the inclusion of fisheries management in their activities. They were happy with the development of the management plan and thanked the project for bringing together communities, anglers, lodge owners, government and other stakeholders in the development of management plans.

They consider the fishery is part of the overall conservation plan and resource basket and not as a stand alone item. The use of conservancy fish by Zambian fishers was seen as a major threat to the livelihoods of community members in the conservancy and impacted on their ability to obtain revenue from recreational anglers. In the short term, potential revenue from anglers and angling lodges and the employment of guards were seen as a major benefit to the conservancy. Other listed benefits were skills development through project-facilitated training, direct payments by anglers and diversification of their income base through access to tourism. They were eager for the project to assist them with contextualizing the non-monetary benefits for their report back to communities during the AGM. The committee was, however, somewhat frustrated with delays in the rationalizing the FPAs and considered this as a major hurdle to engaging in conservation action. As is apparent in all of the literature of the project, communities consider the devolution of responsibility of licensing from the District Assembly in Katima Mulilo to the communities as a necessity for effective implementation of management plans. The Impalila conservancy said that they were already losing potential revenue from anglers coming from Botswana as they were not able to issue licences and had to refer these anglers to Katima Mulilo (which is clearly impractical for anglers from Kasane).

## **MFMR-Katima Mulilo Office**

Katima Office extension staff of the MFMR considered the project activities positively. They said that the MFMR had not involved itself very much in fisheries committee formation and acknowledged that communities currently get little MFMR back-up regarding logistic and operational support (e.g. enforcement patrols and gazetted of FPAs). They were however impressed with progress made by the project and said that they would become more involved in the project. The project successes have resulted in more communities wanting to become involved in similar initiatives and numerous community requests for assistance have been made to the MFMR. MFMR staff requested that the project should develop a toolbox or manual for the processes to be followed for the formation of FPAs and community committees. It was suggested that part of this process should involve a comprehensive review of the composition of the current community groups to assess their functionality and efficacy. Development of such a toolbox can also help towards transferring project experience to similar programmes elsewhere in KAZA, such as on the Barotse floodplain in Zambia.

MFMR staff expressed concerns that project reports were not openly accessible, despite project delivery. It was however acknowledged that this may have more to do with internal distribution than with project delivery of reports. For this reason, I suggest that a report distribution system should be developed and that all reports be made accessible for download from a website. In this way, if hard copies are lost, reference material can be downloaded.

The MFMR research officer considered that the Liambezi monitoring progressing well and that data were available to make recommendations on gear use and calculate harvests and catch rates. The current catch assessment surveys were also considered necessary but reporting and analysis skills could be improved. In this regard, the recent data analysis workshop was appreciated and was considered very useful. In addition, researchers commented on the excellent synergies with other projects were being developed as a result of the NNF project collaboration. In fact, the Senior Research Technician recommended that the project should be extended (research and fish monitoring) to other perennial floodplain channels.

The technical staff responsible for Aquaculture stated that the project provided important start for fish ranching initiatives in the area but that continuation should be achieved as an MFMR initiative.

## **Angling lodges**

Lodge managers from Island View and Kalizo lodge were very supportive of the project and particularly of the process used in developing the management plan. Lodges are already supporting the conservancies with regards to the provision of transport during patrols. However, they indicated that they would prefer to do this through more formal arrangements with the conservancies to avoid weakening of the community initiative through the creation of the impression that the FPA is a lodge based initiative. In addition, they turned down the offer of being instated as honorary fish protection officers because they see this as a community initiative. They also acknowledged that licensing and Zambian fishers remained the main problem areas with the conservancy.

## **Angling Club**

The angling club Public Relations Officer Strijs Coertzen was also supportive of the project and indicated that he was impressed with joint meetings that he had attended with the community. He indicated that the angling club was in a good position to contribute towards the conservancy. In 2012, for example, the angling club would donate N\$100 per team entering the Zambezi Classic, a recreational catch and release tournament held annually. In addition, all members of the club would, next year, pay a levy of N\$100 for the conservation of the Kalimbeza channel and his company would directly employ two of the fish guards. Through formal employment by a security company these two fish guards would have formal powers of arrest which will have a significant impact on their efficacy. The monetary value of these contributions is in excess of N\$70,000/yr. It must however be noted that the anglers' contributions are conditional on significant changes being seen in protecting the Kalimbeza channel. If, for example, encounters with nets do not decrease this support would be withdrawn. He also pointed out the importance of this being a community initiative and warned that it would fail if it was considered as an initiative driven by the anglers and lodges.

Mr Coertzen also made some very valid recommendations. First he said that data on the current catch rates of fishers operating in the Kalimbeza channel were vital such that opportunity costs for not fishing can be calculated and alternative income generating activities can be pitched at the right economic level. He also made the recommendation that the project invest in showing the community just how much potential was in a well managed fishery. He suggested taking the committee to other successful conservancies to view community owned tourist facilities and so that they could exchange ideas. Also, he stated that the maintenance of the road and slipway at Kalimbeza could be an important revenue stream as anglers would pay for good launch access.

## **Is the project contributing to raising capacity in natural resource management or other areas**

The project is creating local capacity by developing skills at all levels of intervention. Communities are empowered to manage their own resources and are assisted with development of management plans and through involvement with the project are learning important managerial skills that are necessary for effective management. The MFMR through direct training in resource assessment and monitoring is benefiting directly from improvement of in-country research capacity. In addition, one member of the MFMR and one Zambian student are currently registered for MScs at higher learning institutions in Namibia and South Africa.

## **Efficiency of Planning and Implementation (Sound Management)**

### **Use of resources**

On evaluation of the project outputs and other achievements it is implicit that resources are being used efficiently to achieve the project purpose and outputs. The project has one vehicle for use by the project executants. It has one open aluminium boat plus outboard that is extensively used for: (1) direct project activities such as visiting project areas when roads are not passable, and facilitating meetings between conservancies to share experiences; (2) various research projects facilitated by the project; as well as to (3) support research

programmes of the MFMR. The project is currently rehabilitating an old, smaller boat and trailer and getting a new outboard for it, to be used by both project and MFMR.

The Project Executant made use of his SAIAB connections to borrow its 12' inflatable boat and 15HP engine to provide greater versatility in accessing areas such as remote floodplains. Unfortunately the engine was stolen from the Project's rented house and thus this boat has not been used as extensively as was anticipated.

## **Implementation**

### **Estimate of project achievement**

The workplan indicates that achievement is in line with the project plan. This in year two in the three year project would equate to 67% achievement. Achievement is adequately demonstrated by verifiable outputs/indicators in the LFA (Appendix 1).

### **Monitoring data**

Project monitoring data, in the form of project reports, minutes of meetings and research reports are available. However, I suggest that a formal numbering system for efficient storage, retrieval and referencing is developed urgently. Other data collected during the project (price and catch monitoring data) have been collected and entered into spreadsheets but still require collation and reporting. The project should consider a repository or database for all raw data collected during project-funded as well a MFMR research such that these are available for assessment after the completion of the project. The report for the recent data workshop also strongly recommends this course of action.

### **Has project implementation been adaptive and pro-active, responding to changes and lessons learned?**

In its implementation the project has been very proactive in enaging members of the recreational angling fraternity in the FPA and fish conservancy process. The project has been able to make use of third party contributions. For example, promised angling club contributions to the Kalimbeza conservancy are in the region of N\$ 70,000 and research contributions from UNAM, SAIAB and the National Research Foundation of South Africa are valued at more than N\$ 800,000 over the project period. In addition, the closure of the support to fish ranching and reallocation of funding towards the fisheries management component recognised that project interventions were better applied in sustaining the 3000 tonne fishery than in providing contributory support to aquaculture, a major focus area of the MFMR.

## **Management factors**

### **Is the project experiencing any capacity gaps**

The project is well managed and PEs have reacted to capacity gaps by making use of external expertise where necessary. This is demonstrated by the externally conducted socio-economic survey of the fishing lodges and the strong linkages that the project has developed with outside research organisations at limited cost to the project.



## **Staff performance and working relationships**

Apart from a short period when staff needed to comply with immigration law in mid-2011, staff have been performing efficiently. The working relationship within the team has been good. The two PEs work well together, each contributing a diversity of skills and contacts to the projects. Relationships with project partners appear good with the only current problem area being with the project relationship with the Operations Directorate of the MFMR which has been resisting project recommendations and showed limited support to the project for most of the year. The situation is being addressed with the assistance of the Directorate of Aquaculture and Inland Fisheries. The enforcement office in the Katima Mulilo office, is now actively targeting the most destructive illegal fishing methods and understands the importance of giving direct support to the conservancies in their attempts to curb illegal fishing.

## **Has internal and external communication been effective and efficient?**

Internal and external project communication has been adequate. All indications are that the PEs have been careful to ensure good communication at all levels. In this regard, the project should be commended on its role in facilitating information flow between community groups and various higher level stakeholders. All stakeholders interviewed during the evaluation also commented on good communication and it is obvious that communication problems at partner level are a result of poor internal distribution within stakeholder organisations.

## **Impact**

This is a mid term review and because some of the planned project activities have not been completed, the overall projected impact will have to be determined during the final project evaluation. It is however possible to make some overall statements regarding the impacts of the project as the project has already made significant progress towards the creation of community based fisheries management institutions, aided in the formation of FPAs and has contributed towards research that can be translated into management action and can be used to adapt legislation. Because overfishing results in decreased biodiversity, depletion of high value species and in some cases severe changes to ecosystem functioning, the project is likely to have a significant positive impact on biodiversity. In addition, the FPAs will have positive impacts on fishes and wildlife as they will provide refugia from the disturbance associated with fishing.

From a social and economic perspective, the project, by developing sustainable management systems through conservancies and fishing communities, contributes directly towards the long term sustainability of the resources that provide a source of food security and income in communities. By facilitating the formation of fisheries committees and empowering them to develop management plans through discourse between multiple stakeholders the project has had a significant impact in increasing the recognition of the role of the community committees in implementing resource management actions at all political and stakeholder levels.

In the long term, the social and economic impacts will be diverse. Sustained fish catches will impact positively on artisanal, subsistence and recreational fishers who will benefit from good catch rates resulting from a properly managed fishery while fish traders, many of whom are

women, will benefit from more stable fish supply. The community as a whole will benefit from increased employment opportunities that are likely to result from continued engagement in resource management and from payment for resource use by tourists. Tourism continues to grow in the area with two new lodges currently being developed on the floodplain. It is also envisaged that other local communities who are not directly involved will also benefit through enhancement of food security and reduction of absolute poverty as the general economic status of the area increases through the diversification of economic activities associated with resource conservation and management.

## **Sustainability, replicability and magnification potential**

### **Is the project likely to develop a clear exit strategy?**

Through the strong focus on communities for taking charge in of management initiatives and by providing the framework for funding community based fisheries management activities from stakeholder contributions the project contributes to the long term sustainability of the management structures that it is developing. Strong linkages with stakeholders at all levels will most likely allow the project to develop a clear exit strategy in the next year and, if project outputs relating to the rationalization of fisheries committees and conservancies are successfully completed by the end of the project, continuity of activities should be possible. In this regard it is important to note that community groups will likely need continued support and that the project actively seeks to strengthen its existing links with organizations such as AWF and WWF in Zambia as well as appropriate new partners, potentially under a KAZA umbrella, to continue with project activities.

In addition to the empowerment of the communities, which in the opinion of this reviewer is well on track, the project is actively discussing with MFMR the taking over of statistical data collection, management of data and analysis thereof. The project seeks to engage MFMR staff in all meetings with stakeholders and there is now active engagement between the MFMR staff in Katima Mulilo (particularly Mr M. Saisai) and conservancies.

It is however, important that the project develops a clear and documented exit strategy during its final year of implementation. The exit strategy needs to be developed with the stakeholders and clearly outline roles and responsibilities of all stakeholders in particular those of the Departments of Fisheries in Namibia and Zambia so that project activities continue as recommended. Part of this process will be to reassess the need for an advisory committee for the project, which to date has not been formed.

### **Assessment of the key factors affecting sustainability and up-scaling of the project activities.**

Given the successes thus far, long-term project sustainability will largely depend to three factors: (1) the rationalization of the FPAs by the minister; (2) legitimization of the role of conservancies in fisheries management by including them in the Fisheries Act and (3) the development of comprehensive guidelines from the experiences gained from the current project as a basis for replication of this model elsewhere. In particular, there is excellent scope

for the lessons learnt to be applied in new initiatives such as the Kavango Zambezi Transfrontier Conservation Area (KAZA).

### **What is the likelihood of continuation of initiated conservation activities and lasting benefits after the project is closed?**

If the project is able to achieve its proposed targets by the end of 2012 there is a high likelihood that there will be lasting benefits after the project has closed. This is because the project is attempting to provide legal legitimacy for the management process by actively lobbying for changes in legislation. Once the rights of the communities are rationalized and legislation has been adapted to include conservancies as fisheries management authorities, the institutional framework for community based management of the fishery resources in the Caprivi region will be established. Current progress towards sustainability criteria outlined in the project proposal follow.

- **The involvement of the local communities in the management of the resource will enhance the feeling of ownership.**

Overall, there is a strong feeling of ownership by communities for the project. As mentioned under stakeholder views: *“Interviews with the management committee of the Sikunga and Impalila conservancy indicated that the committee was exceptionally proud of their achievements and definitely see this as THEIR initiative. They were looking forward to gaining the benefits from the conservancies and recognized many of the potential benefits arising from the inclusion of fisheries management in their activities”*. This feeling of ownership of the natural resources, including fish, is strongly evident in the conservancies visited in this review, which bodes well for successful resource management in future.

- **Fisheries staff (Namibia and Zambia) will be attached to the Project and capacity and expertise will be built over time. Staff will then be able to take over all activities, depending on the manpower available at the time.**

The project facilitated three research projects involving MFMR staff with supervision and guidance from SAIAB in South Africa and the University of Namibia, and it also helps the MFMR with planning and operation of its own monitoring programmes. Thus the project contributes strongly to capacity development in MFMR staff and increases the chances of long-term continuation of the project's aims.

- **Once the cross-border committee has been established and is functioning, support from government will ensure that the benefits of having this committee warrant its continued existence.**

The project continues to promote cross border dialogue between Namibian Conservancies and stakeholders and communities in Zambia and Botswana. Continuation of the cross-border commission's fisheries sub-committee, the establishment of which was facilitated through a project-organised workshop, remains problematic with Zambia as yet failing to organise the next meeting.

- **The benefits (social, financial, and economic) of managing and benefiting from the resource will provide incentive for the fisheries/conservancy committees to continue with the recording of data, implementation of innovative management practices, and maintenance of the management structures generated.**

The conservancies are well aware of the benefits of managing the resources properly and the project is assisting in identifying potential sources of support, which at present include the

Millenium Challenge Account, the University of Hannover (through Green Development Initiative) and local angling clubs and lodges. Developing holistic management plans for the conservancies' natural resources through these programmes will provide lasting benefits.

- **A detailed management plan for the region will give guidance to the management process.**

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While a management plan for the region is being implemented by the project, this was never finalised as a project document. It is important that the project finalises the Management Plan document with buy in from the Department of Fisheries in Namibia. While an attempt should be made to include Zambia the process of developing such a management plan, I believe that the project should focus on providing a comprehensive plan for Namibian fisheries. This could then be adapted, as a separate plan, for Zambian fisheries.

### **Which are the key constraints to sustainability of project activities and conservation gains?**

Currently, the most important constraints are the delay in the minister rationalising the FPAs and management plans and the delay in including project recommendations in the Fisheries Act. It is therefore important that the project continues and perhaps strengthens its activities relating to gaining political support for community initiatives. The project should also recognise that it is possible that its proposed changes to the regulations will not be achieved during the current project phase because the legal processes are beyond the control of the project. To mitigate against this, *the project should focus on the development of a complete legal document listing these changes and how they should be integrated in the act and continue to lobby for support from the MFMR.*

### **Replicability**

#### **Is there evidence of organisations/partners/communities that have copied, upscaled or replicated project activities?**

There is strong evidence of the adoption of the project. There are numerous requests for the project to get involved in the formation of further conservancies are planned that will result in almost the entire Namibian Zambezi river bank falling within conservancies. These emerging conservancies committees are engaging with both project and MFMR, and this provides tremendous opportunities for local management of fish stocks within the natural resources management mandate given to conservancies. In Zambia the project also collaborates with the African Wildlife Foundation (AWF) which has requested assistance with integrating fisheries in their conservancy approach, and which is actively exploring the establishment of FPAs (under the title Fish Breeding Areas). It has also established communication with the Inyambo and Sekute Trusts responsible for conservation and sustainable development in the fishing areas.

#### **Can the project be replicated without additional donor funding and technical assistance?**

It must be recognised that CBNRM in initiatives require long term support. While it is unlikely that replication will occur without long term donor support, the new KAZA programme

provides a significant opportunity for such support. The project should therefore take continued steps towards promoting its activities with KAZA as that organisation matures. First steps have been taken through discussions between the project and KAZA's Technical Adviser, Dr S. Munthali. Perhaps, most important is that the project, in its final year ensures that the baseline data, reports and tools necessary for the replication of the project elsewhere are available.

## **Lessons learned**

The importance of documented "Lessons Learnt" in lobbying for and guiding future support should not be underestimated. In the progress report Tweddle and Hay (2011) provide an excellent review of the lessons learnt. Of particular interest is the lesson *"that the fishing communities in Caprivi do have the capability to manage their own fisheries resources as shown by the community at Lake Liambezi. The approach taken by the community at Lake Liambezi could potentially be used as a model for inland fisheries in the rest of Africa. In this case the community has adopted rules that are correct for the specific fishery, even though these rules are more rigorous than the current regulations under the Inland Fisheries Act."* This particular case study is exceptional and needs to be well documented as a major output from the project. In addition, a final "lessons learnt" document outlining all project experiences and corrective actions should be produced at the end of the project.

## **Conclusions and overall assessment**

On assessment of the LFA and interviews with stakeholders the evaluation finds that the project has made significant progress towards achieving its intended outcomes by delivering against all major outputs.

- There is clear documented evidence of continued pressure on the fish resources in the Caprivi region. The project goal, purpose and outputs listed in the LFA remain highly relevant. The implementation strategies have been appropriate for achieving the project goal and purpose and the LFA is logical and complete. The project goal and purpose relies largely on the empowerment of communities to take charge of the management of their resources through collaboration with other stakeholders such as recreational anglers and angling lodges to manage the fishery on a sustainable basis.
- The project focus on empowering the communities through the conservancies is highly relevant. In addition, by providing important baseline information on the resource, marketing and tourism values through guided research the project has managed to provide baseline data for not only monitoring the success of subsequent interventions but also for providing an important basis upon which to modify current and develop future management plans.
- Implementation strategies have been appropriate for achieving the project goal which relies largely, and correctly, on the empowerment of communities to take charge of the management of their resources through collaboration with other stakeholders such as local government, the MFMR, recreational anglers and angling lodges to manage the fishery on a sustainable basis.

- The project monitoring system has clear and verifiable indicators and reports are available for all outputs in the LFA presented in the latest (September 2011) Project Technical Progress Report (Tweddle and Hay, 2011). These indicators (meeting reports, management plans and comments to legislation) demonstrate that there has been significant progress with regards to developing local fisheries management committees and implementing management actions. The workplan indicates that achievement of planned activities is in line with the project plan.
- Not all assumptions made in the project document are being fulfilled, particularly regarding Zambian commitment to the project. In Namibia the project appears to have commitment from all stakeholders while Zambian involvement in the project remains limited. While Zambian support to the project is desirable, it is not a necessity for project success in Namibia. As a result the project should take care not to over-invest time and resources in trying to secure Zambian commitment at the implementation level but should rather focus on getting the Namibian committees and conservancies fully operational.
- Project staffing is adequate with two Project Executants having been recruited. The project is well managed and has reacted to capacity gaps by making use of external expertise where necessary. This is demonstrated by the externally conducted socio-economic survey and the strong linkages that the project has developed with outside research organisations at limited cost to the project. The project has made considerable contributions to the employment of staff from local communities as fish monitors, market monitors and development officers.
- There is continued willingness of the local communities and other stakeholders to take part in the project. Overall their expertise, combined with significant buy in from stakeholders all levels has resulted in the project being able to engage members of the recreational angling fraternity in the FPA and fish conservancy process and obtain third party contributions from multiple sources including the angling club, UNAM, SAIAB and the National Research Foundation of South Africa.
- There appears to be high level MFMR commitment to devolve power to fishing communities but there is resistance in some sections of the MFMR. The reason for this is unclear. However, once the management plans have been rationalised by the Minister and rights are entrenched in legislature to allow for the devolution of power to fishing communities and internal resistance and agendas will become irrelevant.
- The project has made comment and provided motivation for additions and amendments to the current legislation to the Inland Fisheries Act of 2003 (Republic of Namibia 2003). Only some of the proposed changes have, however, been included in the proposed legislation changes by the MFMR. This indicates that the project may have been overly optimistic in the rate at which changes to legislation can be effected. Delays in amendments to the legislature, which are out of the control of the project, do not however pose significant long term risk to the project if recommendations are adopted in principle by the MFMR policy team.
- The lack of support from the Inspectorate, which in the past is reported to have focussed largely on recreational anglers, has been a problem for the project.

However, more recently, the enforcement division has focussed more strongly on providing support to the Conservancies. It is likely that previous difficulties have been resolved. The final analysis of this risk will, however, only be possible after the first FPA closures have been effected and active community policing commences.

- Interviews with stakeholders indicate that the project is meeting their expectations. This is demonstrated not only through interviews but also through actions. The conservancies have started implementing fisheries management activities, and on Lake Liambezi, where overfishing is not yet a problem.
- The choice to discontinue with Output 6 (Collaboration in next phase of NNF fish ranching project) was logical given the poor performance of this component and the recognition that project resources were better applied in sustaining the 3000 tonne fishery than in providing contributory support to aquaculture, a major focus area of the MFMR.
- During the mid term evaluation, I met with various stakeholders including MFMR staff, researchers from KIFI, angling club chairman, lodge managers and Sikunga community members. Interviews with all stakeholders were positive and all indicated that they were satisfied with project progress.
- Long-term project sustainability will largely depend to three factors: (1) the rationalization of the FPAs by the minister; (2) legitimization of the role of conservancies in fisheries management by including them in the Fisheries Act and (3) the development of comprehensive guidelines replication.
- The importance of documented “Lessons Learnt” in lobbying for and guiding future support should not be underestimated. The Lake Liambezi case study, for example is exceptional and needs to be well documented as a major output from the project.

## **Recommendations**

The review found that the project was mostly progressing as planned and the PEs should be congratulated on their effective implementation of the project. It should be recognised that the project is nearing completion at the end of 2012. As a result PEs should be careful to focus on the current activities of the project rather than taking on new initiatives.

With regards to project interventions in legislation, community group engagement, research and project reporting and replication, the review makes the following recommendations:

### **Legislation**

- There has been some frustration with obtaining signatures from the minister for the management plans from the conservancies. The project should continue to lobby for support from the ministry and politicians through the use of meetings,

positive press releases and through invitations of politicians to community meetings.

- There is a need to continue the active engagement with the MFMR policy division in including the project recommendations for changes in the Inland Fisheries Act and Regulations.

### **Community engagement**

- Community based natural resource management initiatives such as the current project require long-term support. The project should therefore attempt to engage with other regional initiatives such as the KAZA programme.
- The project, in its final year, should ensure that the baseline data, reports and tools necessary for the replication of the project elsewhere are available and filed in a numbered system.
- The project should take considerable care to ensure that all initiatives relating to the conservancies are driven by the community group. This may require the project playing a more passive role in the facilitation of meetings. This is important for ensuring the acceptance of the committee on a wider community level. In this regard, all projects and employment funded by the conservancy should be channelled through the conservancy account so that the benefits derived from the conservation initiatives are clear and transparent.
- Prior to the completion of the current project phase it is recommended that the structure and function of all community groups supported by the project be evaluated.
- Interviews with the community and discussions with the WWF natural resource advisor made it clear that support would be required to community groups, not only with accessing benefits but also for packaging this information so that the committee could provide effective feedback to its members at the AGM.
- The project should consider taking the fisheries committees to visit other successful conservancies to view community owned tourist facilities and so that they could exchange ideas on potential income sources and implementation measures.
- The project should help develop appropriate communication media to ensure that conservancy committees are able to effectively communicate their activities to members and stakeholders at the AGM. This will include the development of a monitoring system which could include methods developed in the events book used for wildlife.
- The project should facilitate the development of suitable pamphlets and posters highlighting conservancy approaches and successes which can be used to lobby for support and make use of the media to inform the public of project successes.
- The project should investigate possible strategies for revenue sharing from angling license sales and the devolution of the responsibility for licensing to local



communities.

## **Research**

- The project should make use of its research collaborations and its own research and monitoring projects to provide information on the current state of the resource and to provide biological and social baseline information on the project through:
  - Facilitating the assessment of available fisheries monitoring data to provide a report on the status of the fisheries at the end of 2012.
  - Developing a statically sound but locally appropriate catch assessment system. In developing this system, project experiences with fish monitors need to be considered and the system should include not only a database for the storage and analysis of the data, but should also make strong recommendations on the sampling strategy and frequency necessary for statistical rigour.
  - Facilitating a 2012 frame survey to determine the current fishing effort and assess to what extent the fishery is developing. Here the project should also investigate linkages with the annual aerial game count during which numbers of canoes could also be assessed.
  - Take a proactive role in ensuring that the research results from the three research projects are communicated to the fisheries management authorities.
  - Aid in the development of research proposals and engage research partners in undertaking research on possible unexploited fish resources developing in the offshore zone of Lake Liambezi.
  - Aid in the development of research proposals that aim to better understand the social and economic impact of fisheries in rural communities in the Caprivi region.

## **Reporting and replication**

- In its final year, the project should attempt to consolidate all reports and associated information and data in a central database to provide the basis of project replication.
- Despite the discontinuation of support to fish ranching in 2011, I suggest that the project plans a final assessment of the costs and benefits of fish ranching to communities and implementers.
- The project should develop “toolbox” and “lessons learnt” documents that could be used as manuals in the process of fish conservancy and FPA formation.
- The project should consider a repository or database for all raw data collected during project-funded research such that these are available for assessment after the completion of the project.

- The project should develop a final monitoring and evaluation report in which suitable indicators for the long term assessment of project impacts are evaluated and project data are used to develop a baseline against which current and future project impact can be measured. Such baseline data could include incident data from enforcement patrols, income for communities, biodiversity inside and outside FPAS, catch rates and harvest volumes, average size of fish harvested and the number of committees or area of river under conservancy control.
- It is important that the project develops a clear and documented exit strategy during its final year of implementation. The exit strategy needs to be developed with the stakeholders and clearly outline roles and responsibilities of all stakeholders in particular those of the Departments of Fisheries in Namibia and Zambia so that project activities continue as recommended. Part of this process will be to reassess the need for an advisory committee for the project, which to date has not been formed.



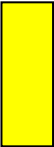

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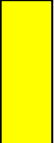
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**Appendix 1: Project Logical Framework Analysis provided in the September 2011 Project Update Document (Tweddle and Hay 2011). This review considers the assessment of progress in that document to be currently valid.**

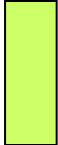
**Conservation Achievement KPI Rating Table**

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
					2011	2012	
<p><b>Project Goal:</b></p> <p>The shared Zambezi/Chobe River fisheries resources sustainably managed by promoting transboundary coordination and collaboration on the introduction of fully integrated fishery management systems.</p>							
<p><b>Project Purpose:</b></p> <p>By end 2012, a fully integrated management system for livelihood and sports fisheries, that provides optimal benefits to all stakeholders reliant on this valuable resource, is in place in targeted pilot communities.</p>	<ul style="list-style-type: none"> <li>Local fishery management structures operational (i.e., conservancy committees, Fisheries Committees, Traditional Authority, etc.) (minimum of 4)</li> <li>New fishery</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries committees (4 in total) in Caprivi and in Zambia formed but not yet mandated to take over responsibilities for fisheries management.</li> </ul>	<ul style="list-style-type: none"> <li>Five Fisheries committees formed in Caprivi.</li> <li>Muyako Committee took initiative, introduced local rules for fishery and is managing the fishery at Lake Liambezi with</li> </ul>	<ul style="list-style-type: none"> <li>Fish Protection Areas officially proclaimed.</li> <li>Fisheries Committees managing the FPAs.</li> <li>Official agreement between communities</li> </ul>	<ul style="list-style-type: none"> <li>Fish Protection Areas approved by TAs, Regional Council and MFMR</li> <li>Management plans in place for FPAs</li> </ul>	<ul style="list-style-type: none"> <li>FPAs fully functional with approved management plans.</li> <li>Conservancies Act harmonised with Inland Fisheries Act to allow full management</li> </ul>	



Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
	management practices introduced at local level, including gear restrictions and mandatory licensing, Fish Protection Areas, sport fishery agreement with conservancies etc.		<p>MFMR acting in advisory capacity.</p> <ul style="list-style-type: none"> <li>• Letters signed by Impalila and Sikunga conservancies to manage their own FPAs.</li> <li>• Requests approved by Regional Council and Traditional Authority.</li> <li>• Minister approved FPAs verbally, dependent on production of management plans.</li> <li>• Management plans developed in stakeholder workshop and submitted to Minister for ratification.</li> <li>• Ratification awaited.</li> <li>• Negotiations underway to source funding from NGOs and private sources for management of FPAs by conservancies.</li> </ul>	and Lodge owners on FPA.		<p>rights for conservancies</p> <ul style="list-style-type: none"> <li>• Inland Fisheries Act regulations include recognition of community-based regulations</li> <li>• MFMR assisting in development of management plans with fishing committees based on Liambezi model.</li> </ul>	


Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
<p><b>Output 1:</b> Cross-border collaboration achieved in management of the fisheries resources</p>	<ul style="list-style-type: none"> <li>▪ Meetings of senior fisheries staff from three countries at least biannually (target of at least five meetings during duration of the Project).</li> <li>▪ Minutes produced and communicated to local officers</li> <li>▪ Regular (at least monthly) joint (Namibia and Zambia) patrols done and arrests made</li> </ul>	<ul style="list-style-type: none"> <li>▪ Communication between countries established and strengthened in latter part of Phase 1. No formal cross-border collaboration meetings have been held to date.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Joint patrols (Zambia, Namibia &amp; Botswana) conducted on the Zambezi &amp; Chobe Rivers.</li> <li>▪ Conservancy meetings attended between Zambia, Botswana &amp; Namibia.</li> <li>▪ Transboundary Joint Commission fisheries sub-committee meeting and workshop held in January 2011.</li> <li>▪ Minutes and all proceedings and presentations from workshop published on CD.</li> <li>▪ Meetings held in DoF HQ, Chilanga to review harmonization of legislation.</li> <li>▪ Approval received to work with all relevant stakeholders in Zambia.</li> <li>▪ WWF in Zambia now working with DoF to develop management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Minutes available of cross-border meetings held.</li> <li>▪ ToR developed and agreed of cross-border committee.</li> <li>▪ A joint work plan of the cross-border committee produced.</li> <li>▪ Joint patrols held between MFMR and DoF.</li> </ul>	<ul style="list-style-type: none"> <li>▪ These committees established and functioning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cross-border committees functioning effectively</li> </ul>	




Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
			<p>strategy for Zambian sector of Caprivi floodplain.</p> <ul style="list-style-type: none"> <li>▪ Contact made with new KAZA office in Kasane to discuss future fisheries management strategy throughout KAZA project area.</li> <li>▪ Meeting held with Kasane tour operators to discuss possible management options for Chobe River fishing/tourism.</li> </ul>				
<p><b>Output 2:</b> Management plan for the fisheries developed during Project Phase 1 successfully implemented (in collaboration with neighbouring countries) for the benefit of the communities.</p>	<ul style="list-style-type: none"> <li>• Published management plan</li> <li>• Minutes of stakeholder meetings showing approval</li> <li>• Reports from field officers</li> <li>• Fishermen licensed and abiding by agreed regulations.</li> <li>• MFMR and Zambia enforcement staff working in close consultation with management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draft Namibia Management Plan developed in first phase, incorporating recommendations from research reports, CBNRM reports and Evaluation report</li> <li>▪ Fishermen ignoring existing regulations.</li> <li>▪ Very few gillnets licensed</li> <li>▪ Licensing through Regional Council impractical</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draft management plan available.</li> <li>▪ Only 20% of fishermen have valid licenses.</li> <li>▪ Licensing still through Regional Council, but proposals for amendments to Inland Fisheries Act address this problem</li> <li>▪ Muyako committee established own</li> </ul>	<ul style="list-style-type: none"> <li>▪ Communities managing their own resources with assistance from government.</li> <li>▪ Monitoring programme in place.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Management plan fully endorsed by Ministry and communities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Management plan fully implemented.</li> </ul>	

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
	<p>committees.</p> <ul style="list-style-type: none"> <li>• Monitoring indicates stabilisation/improvement of fish stocks.</li> </ul>		<p>management plan for Lake Liambezi closely in line with project aims. Fishermen there adhering to stricter rules than under Inland Fisheries Act.</p> <ul style="list-style-type: none"> <li>▪ Conservancies developed management plans for FPAs following guidelines.</li> <li>▪ Conflict between tourism and fishing sectors in Chobe River drawing press attention – project has taken on mediation role.</li> <li>▪ Project is reviewing harmonisation of Zambia and Namibia legislation.</li> <li>▪ Monitoring continues smoothly.</li> </ul>				

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
<p><b>Output 3:</b> Fish Protection Areas established and fully functional in targeted pilot communities</p>	<ul style="list-style-type: none"> <li>▪ Fish Protection Areas (a minimum of 4) gazetted by MFMR under inland fisheries regulations with defined boundaries, as per community requests</li> <li>▪ Monitoring indicates absence of fishing</li> <li>▪ Fish guards reports on Fish Protection Areas (monthly reports)</li> <li>▪ Lodges cease complaints</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fishing in main river channels currently a free-for-all</li> <li>▪ Currently no reserves proclaimed</li> <li>▪ Lodges report severe stock depletion by illegal fishing methods</li> </ul>	<ul style="list-style-type: none"> <li>▪ Signed letter from Impalila and Sikunga conservancies and Traditional Leaders for the establishment of FPAs.</li> <li>▪ Management plans for FPAs developed in workshop.</li> <li>▪ Management plans and request for ratification submitted to Minister.</li> <li>▪ Funds being sourced from NGOs/provate sector for FPA management by conservancies.</li> <li>▪ Received three additional requests from communities to assist with FPA in their areas.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fish protected Areas proclaimed and managed by the communities.</li> <li>▪ Fisheries committees fully functional and involved in the management of FPA.</li> </ul>	<ul style="list-style-type: none"> <li>▪ FPAs proclaimed and functioning in two conservancies</li> </ul>	<ul style="list-style-type: none"> <li>▪ FPAs fully functional, well-established, well-managed, and recognised by all stakeholders.</li> </ul>	
<p><b>Output 4:</b> Tourist angling lodges operating in agreements with local fishing committees/ conservancies</p>	<ul style="list-style-type: none"> <li>▪ Contributions from angling fees paid to lodges to committees/ conservancies.</li> <li>▪ Catch records from lodges.</li> <li>▪ Establishment of Fish</li> </ul>	<ul style="list-style-type: none"> <li>▪ Friction between lodges and MFMR over licensing enforcement.</li> <li>▪ Complaints about falling catches.</li> <li>▪ No Fish Protection Areas.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Several meetings held between lodge owners &amp; Sikunga conservancy.</li> <li>▪ Lodges, Nwanyi Angling Club and communities fully</li> </ul>	<ul style="list-style-type: none"> <li>▪ Minutes available of meetings held between lodges and communities discussing management aspects.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extension of agreements to FPAs as they become established.</li> </ul>	<ul style="list-style-type: none"> <li>Extension of agreements to FPAs as they become established.</li> </ul>	

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
	Protection Areas (a minimum of 4) and agreements over catch & release angling.		<p>agree on FPAs and angling club actively engaging with conservancies to draw up management agreements.</p> <ul style="list-style-type: none"> <li>▪ Some Impalila and Zambian lodges already paying conservancy to fish in Kasaya Channel FPA.</li> <li>▪ Sekoma Lodge, Zambia, provided conservancy with boat engine to control Kasaya Chaneel FPA.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reports received from lodges and communities stating benefits received from FPA.</li> </ul>			
<b>Output 5:</b> Capacity built in research and monitoring of fish resource	<ul style="list-style-type: none"> <li>▪ MFMR Officers attendance on courses</li> <li>▪ Certificates, further qualifications for MFMR staff</li> <li>▪ Publication of these, papers, reports</li> <li>▪ Reports on training of fish guards by field officers</li> <li>▪ Production of publicity material (minimum of 4) for education in</li> </ul>	<ul style="list-style-type: none"> <li>▪ Newly appointed scientist has degree and training in GIS</li> <li>▪ Present research capacity limited (no papers published in international journals)</li> </ul>	<ul style="list-style-type: none"> <li>▪ One staff member finishing his Masters.</li> <li>▪ 13 staff indicated interest in doing post graduate studies.</li> <li>▪ Project assisted with three research proposals, all now funded.</li> <li>▪ Two posters prepared. Excellent new photos now</li> </ul>	<ul style="list-style-type: none"> <li>▪ Two scientists from MFMR receiving Master degrees.</li> <li>▪ Scientists from MFMR develop research proposals and implement research activities.</li> <li>▪ Papers published in international</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scientists obtaining post-graduate degrees</li> <li>▪ Monitoring programme further developed and catch statistics programme introduced.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scientific papers published.</li> <li>▪ Ongoing statistical analysis nased in MFMR.</li> </ul>	

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
	communities (e.g. posters)		<p>available, particularly for fish, and being inserted.</p> <ul style="list-style-type: none"> <li>▪ Draft Posters displayed at conference of South African Society of Aquatic Sciences (SASAqS), constructive comments received and being incorporated in final design.</li> <li>▪ Translation completed.</li> <li>▪ Publication target before end-December 2011.</li> <li>▪ Paper on Lake Liambezi management completed and will be published imminently as project report.</li> <li>▪ More comprehensive data from research programme to be added for journal publication.</li> <li>▪ Catch monitoring programme</li> </ul>	journals.			

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
			<p>extended and improved.</p> <ul style="list-style-type: none"> <li>▪ Market monitoring programme extended and improved to include bulk export as well as retail sales.</li> <li>▪ Several popular articles written and submitted about Caprivi fish and fisheries.</li> <li>▪ Presentation on project made to SASAQs conference in SA, June 2011.</li> </ul>				
<p><b>Output 6:</b> Collaboration in next phase of NNF fish ranching project</p>	<ul style="list-style-type: none"> <li>▪ Progress reports from NNF consultant Ms P. Lilungwe on project activities and collaboration with CCP project</li> <li>▪ Increased protein source at sites away from perennial water bodies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Successful stocking of 34 pans/ponds in first phase</li> <li>▪ Growth monitored</li> <li>▪ Many requests for project expansion to new areas</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fieldwork for research on growth rates of important fishes completed. Data analysis for MSc in progress.</li> <li>▪ Unsatisfactory relationship between fish ranching and fish farming components of CCP project .</li> <li>▪ Main project funding by CPP project discontinued.</li> <li>▪ MFMR failed to</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reports published on results attained.</li> <li>▪ Growth rates of fish stocked presented.</li> </ul>	<p>Communities benefitting from fish ranching by harvesting fish from ponds for consumption or for selling.</p>		

Goals & Objectives	Indicator (what you are measuring)	Baseline (December 2009)	Current status (September 2011)	Data Source/ Means of Verification	Planned Intermediate Result, & Yr.	Planned Final Result, & Yr.	Achievement Rating
			recruit Ms Lilungwe to continue project activities under Ministry auspices but intends to continue programme if fingerlings can be reliably sourced.				





## **Appendix 2: Itinerary**

**21/11: Travel from Grahamstown to Katima Mulilo including a short meeting at KAZA office in Kasane.**

**22/11 (am): Meeting with MFMR staff at the Katima Mulilo Office**

**23/11 (am): Meeting with Val Sparg, Kalizo lodge owner near Kalimbeza Channel.**

**23/11 (am): Meeting with 23 members of Sikunga Conservancy including committee members and game scouts.**

**23/11 (pm): Meeting with Riaan van Niekerk, owner of Island View lodge on Kalimbeza Channel.**

**23/11 (pm): Meeting with Nwanyi Angling Club chairman Mr Strijs Coertzen.**

**24/11 (am): Report preparations and discussions with Project Executant Mr Denis Twedde.**

**24/11 (pm): Follow up meeting with Committee members of Sikunga Conservancy.**

**25/11 (am): meeting with Dr Greg Stuart-Hill, Natural Resource Adviser WWF Namibia and both project executants (D. Twedde and C. Hay).**

**25/11 (pm): Discussions with project executants and report preparation.**

**26/11 (pm): Discussions with project executants and report preparation.**

**27/11 (am&pm): Discussions with project executants and report preparation.**

**28/11 (am): Meeting with members of Impalila conservancy.**






**28/11 (am): Meeting with Grant Nel, Kubu Lodge manager, and Mark vanderwalle, head of NGO (Caracal) from Botswana.**

**28/11 (pm) return to Grahamstown.**

### Appendix 3: Persons Interviewed during project mid-term evaluation





Name	Designation
Dr S. Munthali	Technical Advisor, Kavango Zambezi Trans Frontier
Mr D. Nchindo	Senior Fisheries Biologist, MFMR Katima Mulilo
Mr M. Saisai	Senior Fisheries Research Technician, MFMR Katima Mulilo
Mr E. Simasiku	Fisheries Biologist, KIFI
Mr J. Lubanda	Fisheries Research Technician, MFMR Katima Mulilo
Ms L. Haungeda	Fisheries Research Technician, MFMR Katima Mulilo
Mr Fabian Libebe	Chair, Sikunga Conservancy
Mr Steven Muyangwa	Manager, Sikunga Conservancy
Mrs Anna Kamwi	Treasurer, Sikunga Conservancy
Mr Leonard Masangu	Induna, Sikunga
Mr Cephas Lilungwe	Enterprise officer, , Sikunga Conservancy
Mr Kelly Ndana	Chair, Impalila Conservancy
Mr Evans Maswathu	Fish Monitor, Impalila Conservancy
Mr C. Simatra	Village Area Representative, Impalila Conservancy
Mr T Simasiku	Tour Guide, Impalila Conservancy
Mr G Mumba	Tour Guide, Impalila Conservancy
Dr G. Stuart-Hill	Natural Resource Adviser, WWF Namibia
D. Twedde	Project Executant, Integrated management of the
Dr C. Hay	Project Executant, Integrated management of the
Mr Kenneth Sefulo	Development officer, Integrated management of the
Ms Hazel	Market surveyor, Integrated management of the Zambezi/Chobe
Mr Strijs Coertzen	Public Relations Officer, Nwanyi Angling Club
Ms Val Sparg	Owner, Kalizo Lodge
Mr Rian Van Niekerk	Manager, Island View Lodge

## Appendix 4: Conclusions and recommendations made in the evaluation of the previous (2006-2009) project phase.

-  The management plan developed during phase 1 should be translated into Silozi and discussed with the fishing communities.
-  The proposed fisheries regulations should be greatly simplified. The majority of proposed regulations are aimed specifically at fishing in the main river channels and do not take into account the widespread floodplain fisheries for very different fish species assemblages. Gazetting regulations including lengthy lists of banned fishing gears for the whole area will be counter-productive as fishermen will not respect regulations that they know are unnecessary and that prevent them efficiently harvesting resources. Regulations must therefore be agreed at local community level. For example, regulations aimed at protecting large species in the major river channels will be pointless in floodplain scenarios where small, pioneering, highly prolific species are the target. It is therefore suggested that only the most destructive fishing gears are prohibited through the Fisheries Act regulations. These are: seine nets, including gillnets modified to allow them to be dragged through the water; drifting gillnets; beating the water or marginal vegetation to drive fish into gillnets; poisons and explosives. The use of monofilament gillnets should also be prohibited as they are much more effective than multifilament nets, thus creating an enormous increase in effective effort in an already heavily-exploited fishery. A comprehensive ban should be placed on possession of this gear. A curfew, prohibiting fishing at night should be considered after consultation with the fishing communities.
-  Following development of the new comprehensive management plan, and with agreements on the way forward for community management and on local regulations, a new version of revisions of the Act and regulations should be drafted with legal advice, and enactment of these revisions should be given high priority by MFMR.
-  The system for issuing fishing permits must be reviewed. The present system, where it is operated through the Regional Council and fishermen have to travel to the office to obtain licences, is unworkable. The system is a major cause of the current tendency for the majority of fishermen to use unlicensed gears. The ill-will generated by inability of tourists to obtain licences directly from the lodge at which they stay, and the perception that anglers are a 'soft' target for law enforcement, creates negative impressions of Namibia abroad. Issuing of licences should be the responsibility of the fishing communities and conservancies, and tourist lodges for anglers, with a percentage of fees earmarked for the Regional Council. Revenues realised would be greater and the system would be more effective in enabling control of illegal fishing. Until this issue is resolved the project faces enormous difficulties in achieving its goals.
-  Issues identified during the assessment of the recreational fishery must be followed up. The *modus operandi* of angling tourism is not generally understood by Government. A large number of local people are employed in the fishing lodges and as tour guides, who

directly benefit from the fishery. The contribution of the angling tourism sector to the local economy must be highlighted to illustrate the value of the fishery and provide an enabling environment for cooperation between local fishing committees/conservancies and lodges.

Catch and release angling, which does not impact on fish stocks, is promoted by the tourist lodges. The needs of the recreational fishery and the local fishermen exploiting the main river channels and peripheral lagoons are the same, i.e. a healthy stock of large fish species. It is, therefore, important that project (and post-project) activities in the tourist areas address issues raised by both sectors. Conservancies have accepted the concept of FPAs and in fact this is reportedly a part of old traditional systems of control. The project should expand on the FPAs proposed during phase 1 to other parts of the region as well as to the Zambian section of the river after consultation with all Zambian stakeholders.

-  The next phase to this project should be a joint project between Namibia and Zambia, operating with the full confidence and participation of senior officers in the Zambian Department of Fisheries. MFMR and the Zambian DoF must be active partners and it is suggested that there is a permanent (or at least more frequent) project presence on the Zambian side of the river. Botswana should also be much more closely involved in the project as the Chobe floodplain is a shared resource and Botswana has a set of fishing regulations that needs to be harmonised with agreed regulations on the Namibian side of the Chobe River.
-  The project should be guided by a steering committee incorporating senior officers from the three countries. This should meet frequently (at least twice yearly and preferably quarterly) to review progress and make recommendations for modification to the workplans if necessary.
-  Technical assistance should include a fish and fisheries specialist and in addition a specialist in CBNRM. These two officers should work very closely together. It is essential that extension messages conform to current knowledge of fishery dynamics and do not conflict with indigenous knowledge on the state of the fish stocks and how best to conserve them. A case in point is the timing of the closed season in Zambia, which does not protect the larger, more valuable species in their breeding season as claimed. Its major benefit is that it causes a reduction in overall annual effort, and is in force at a time when many fishermen do not fish much anyway as they are tending their gardens at that time. An unfortunate side effect of the Zambian closed season is that Zambian fishermen move across to the Namibian side of the river during that period and add to the already severe exploitation in the area. Harmonisation of such regulations on both sides of the border is critical to sustainability of the fishery.
-  The project emphasis must be on empowering the fishing communities/conservancies to manage the fisheries on a localised basis, including responsibility for licensing of fishermen and/or fishing gears. MFMR must provide an enabling environment (Zambia's regulations already permit community-based management) for devolution of management responsibilities by gazetting modifications to the Fisheries Act and its regulations. Modifications have already been proposed by the project but these need to

be reviewed to remove the excessive and biologically unnecessary restrictions contained therein. Agreement of local regulations should be decided on a localised basis dependent on the fishery priorities in the immediate area controlled by a committee or conservancy. The project's role should be to provide guidance to the communities based on sound scientific principles.

✈ IRDNC, a local NGO, is experienced and successful in guiding conservancies in CBNRM. The current project has initiated close links with IRDNC and appointed two officers trained through the project to assist IRDNC in fisheries matters. The new phase of the project should continue to provide close support to IRDNC to develop CBNRM.