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

January 2010 to December 2012

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Handover of donated patrol boat to Sikunga Conservancy by Nwanyi Angling Club

Boundaries of Sikunga Channel Fish Protection Area

Salted drying fish from Lake Liambezi for DRC market

Transboundary community meeting in Zambia

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Technical Report no. MFMR/NNF/WWF/Phase II/8
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1 INTRODUCTION

The fish resources of the Zambezi and Chobe rivers and associated Caprivi floodplains are both a vital component of the livelihoods of the floodplain inhabitants and a major angling tourist attraction. Fish is thus a major contributor to food security and the local economy. Improved communications in the area and consequent increased commercialisation of the fishery was identified as a major threat to rural livelihoods and to aquatic biodiversity through over-exploitation of the larger fish species that are most valuable for both food and for angling tourism. Concerns were expressed by the local fishing communities and by the tourist organisations that the fishery was in serious decline as a result of widespread use of illegal and destructive fishing methods, and the results of monitoring programmes carried out since 1997 by the Ministry of Fisheries and Marine Resources confirmed over-exploitation of the large tilapiine cichlid species.

The Zambezi/Chobe fisheries project was thus conceived as a way of empowering the local communities to manage the resources in a sustainable way through the formation of local management committees and devolution of responsibility for management, as envisaged in the Namibian constitution and the Inland Fisheries White Paper. The project set out to facilitate management of the fisheries by developing a system of integrated co-management and, because the Zambezi fishery is a shared resource with Zambia, harmonisation of activities and cooperation in surveys and monitoring.

After the first phase of the project ended in December 2009, the second phase ran from January 2010 to December 2012. Management of the project was shared between Mr D. Tweddle as Project Executant and Dr C. Hay as Project Co-executant.

1.1 Project background

1.1.1 Project location

The Caprivi Region in Namibia borders on Botswana in the south, Angola and Zambia in the north and Zimbabwe to the east. The Chobe River and the Kwando/Linyanti River System border on Botswana and the Zambezi River on Zambia. The Chobe National Park in Botswana borders a large section of the Chobe River (both sides of Kabula-Bula), where no subsistence fishing is allowed on the Botswana side, but with a fishery operating on the Namibian side. The Zambezi River borders Namibia and Zambia for approximately 120 km between Katima Mulilo and Impalila Island, where it connects with the Chobe River. The water level of the Chobe River is influenced by the Zambezi River and changes direction depending on the flood level of the Zambezi. Both the Zambezi and Chobe Rivers are slow flowing with large floodplains and small, vegetated islands, bounded upstream by the Katima Mulilo rapids and downstream by rapids on both sides of Impalila island. The largest sections of the floodplains fall within Namibia with smaller sections in Zambia. Both the Chobe and the more westerly Kwando/Linyanti Rivers flow into Lake Liambezi, depending on the magnitude and duration of the annual flood. This lake played an important role in the subsistence fishery in the 1970s and early 1980s, but dried up in 1985. Prior to the start of the present project, some inflow was recorded during the 2000 and 2003 floods, but during the first phase of this project the lake received more floodwater, culminating in April 2009 in a major flood that filled the lake. Consequently, fishery activities resumed in Lake Liambezi and developed into a major commercialised fishery during this second phase of the project.
Three major tributaries enter the Zambezi River on the Zambian side with several lagoons present between Sesheke and Mambova.

At 600-700 mm, East Caprivi has the highest rainfall in Namibia - although it is considered low globally. The rainfall in the catchment area of the Zambezi River in Angola and Zambia is, however, much higher and is the main factor determining the flood level, timing and duration in the Caprivi. In comparison, the local rain in the Caprivi has very little impact on the flood cycle of the Caprivi floodplains. The floodplains cover large areas (>300,000 hectares) of the eastern Caprivi and in times of a major flood, the Kwando/Linyanti System connects with the Chobe River. More than 30 per cent of the eastern Caprivi can then be flooded. The fishery and overgrazing of the floodplains in the eastern Caprivi are possibly the activities with the highest impact on the environment and the fish community and there now is evidence of overexploitation of the fish stocks (Project Technical Report no I/2). The absence of large-scale industries and cities in the region ensure very little pollution on the floodplains. The physical characteristics and water quality of each river system does not change drastically between the different regions. No dams or weirs are present or planned for the project area, as the floodplains’ flat topography is not conducive to such structures.

Figure 1 highlights the study area and the stations that are monitored each year during the biological survey (by MFMR, Namibia) and also the stations surveyed during the previous project (Kalimbeza, Impalila and Kabula-Bula/Ihaha areas).

1.1.2 Project context

1.1.2.1 Biodiversity importance of project area

The project area is largely comprised of a rich system of floodplains and permanent backwaters to the Zambezi River. These floodplains are part of a wider ecosystem that has historically been part of a seasonal migration complex for a mix of charismatic large African megafauna (i.e., elephant, buffalo, plains zebra, waterbuck, etc.) that also includes the Kalahari Woodlands found on the southern side of the Chobe River. Until the late 1960s, the floodplains were occupied by large numbers of wildlife such as red lechwe, puku, and hippopotamus. However, the occupation of the area by the South African Defence Force, and attendant proliferation of firearms in the area, resulted in extensive over-use of the floodplains’ valuable wildlife stocks for the next three decades.

Since passage of the Namibia Conservancy legislation in 1996, 13 conservancies have been established in Caprivi, remnant populations of these animals have begun to recover and have been supplemented by translocations from other Namibian wildlife reserves. Presently, the area is of significant biodiversity value to Namibia and the region, and is under consideration as a potential Ramsar Wetland Site of International Importance. Additionally, the area provides critical habitat to a number of endangered and/or rare species on the CITES appendixes (Nile crocodile, African elephant, etc.) and national and IUCN Red Data books.

A locally threatened fish species, the Caprivi Killifish (Nothobranchius sp.) (until recently considered to be a colour form of Nothobranchius kafuensis but now shown to be a distinct species based on significant genetic differences and currently being described (Brian Watters, pers. comm.)), is found in a number of pans primarily in the Salambala Conservancy in Caprivi. It has a specialised life cycle where eggs are laid on the bottom and development is suspended when the pool dries out. During the next rainy season, these eggs hatch, the fish mature and breed before the pool dries up again. Any development projects, such as roads, may threaten this species.
The Zambezi and Chobe Rivers are rich in fish species diversity with more than 80 species identified from the Namibian section of the system, several of which are undescribed. The entire Zambezi River has close to 160 species. Several species have been identified as having specialised life cycles and habitat niches. There are species that are not commonly sampled due to habitat preferences, but others are naturally rare. The annual flood cycle is the main stimulus for fish production and any changes to the hydrology will seriously influence the fish stocks. Similarly, any artificial changes to the habitats may negatively impact on the fish population. It was found that species diversity and species composition differ between stations as well as during the different flood periods. This is linked to habitat differences, and breeding and migration behaviour of the different species. Another important aspect of the fish resource is that the Namibia Ministry of Fisheries and Marine Resources initiated an index where fish can be used as indicators for aquatic ecosystem health. Fish are part of the top structure of the system and will show signs of any impacts at lower levels. Species diversity plays a very important role in this index. The Ministry started a monitoring programme in 1997 (working on all fish species) to follow the trend in the fish population over years.

1.1.2.2 Policy and legal context

The Namibia Inland Fisheries Resources Act (Act No. 1 of 2003) and Regulations came into operation on 6th June 2003. The aims of the Act are broadly similar throughout the country but with minor differences in regulations between rivers, dependent on the nature of these systems and the needs of the human communities. e.g. seasonal systems such as the Cuvelai System (seasonal river system in north central Namibia flowing from Angola) are managed differently from perennial systems such as the Zambezi River.
The subsistence nature of Caprivi’s multi-species fishery, combined with the transboundary nature of the fishery resource and the extremely dynamic nature of a floodplain fishery, makes fishery management impossible through a quota system. Hence, the regulations are written in such a way as to restrict effort in the fishery, including restrictions on the permitted number of nets, mesh sizes, and net lengths. Furthermore, no dragging of nets is allowed in the Caprivi, but all traditional gear types such as traps, baskets, spears, etc. are allowed. The rationale is that no restrictions will be put on the poor communities who can still use the traditional ways of fishing. The Act also makes provision for an Inland Fisheries Council that will advise the Minister in relation to any matter on which the Minister is required to consult the Council. This council will include traditional leaders, thereby providing a means for inputs from the fishing communities. The council may also establish committees to investigate issues as determined by the council. Appointment of this Council has still not been achieved.

According to the Act, closed seasons and Fish Protection Areas can be established with collaborating stakeholders with the aim to preserve the environment, protect the fish resource and habitats necessary for successful breeding, and to promote the regeneration of the fish stocks. It is noteworthy that the communities are receptive to the concept of closed seasons in the interests of harmonisation of relations with the neighbouring countries but this concept has still to be accepted by MFMR although in recent months it is again under active consideration. Fishery Inspectors are employed by the Ministry. At the start of the second phase there were only three inspectors for the Caprivi floodplain fishery, but the Ministry indicated an intention to appoint nine more to increase the number to 12. The Head of the Inspectorate moved from his base in Rundu to Katima Mulilo during the second phase. The Minister can also appoint persons nominated by the traditional authority as inspectors.

The Inland Fisheries Legislation has yet to be fully implemented, resulting in limited control over the illegal fishing taking place in the Zambezi River. Complaints from fishing lodges and tourists, as well as from the fishing communities, regarding the use of illegal fishing methods are frequent and warranted. In addition, increasing numbers of complaints are also being received concerning the use of very effective monofilament gillnets that are now locally available.

An encouraging sign is that the local traditional leadership has recognised current fishing practices are unsustainable and therefore actions need to be taken before the situation deteriorates further. The local communities believe the most effective way to manage the fisheries will be to devolve, from the Ministry to local level institutions, the authority to formulate regulations that are suitable for the area and for controlling the fishing activities. Licensing of fishing gear should contribute to the funding of these local management activities. This will need a change in the current regulations, whereby the Regional Council based in Katima Mulilo is given responsibility for licensing, a system that has proved to be unworkable.

Different policy and legislative frameworks exist between Namibia, Botswana and Zambia. The emphasis on subsistence fisheries in Namibia was formulated because research showed that the fish resource is limited and will not sustain commercial ventures. In Zambia, different regulations exist for the same resource utilised by Namibians and harmonisation of regulations is needed. Initial discussions have been held on this issue. Botswana has limited access to the fishery areas because most of the Chobe River frontage falls within protected areas, but nevertheless close cooperation is needed to overcome conflicts over the use of the resources.
A new Fisheries Act was enacted in Zambia in 2011. This new Act addresses:

The need to regulate and mandate fish farming;
The need to decentralise fisheries management through community involvement;
The increasing need for co-operation with neighbouring states in the management and development of shared fisheries; and
The need to increase protection of aquatic fauna and flora, biodiversity from environmental degradation.

1.1.2.3 Social and economic context

A study conducted on the eastern floodplains of the Caprivi, Namibia, prior to the project, stated that a third of the households depend primarily on the fishery for subsistence and income purposes and that there is a clear reliance on the fishery for survival. The income generated by fisheries covers the basic needs of the people such as food, clothing and school fees. Fish are important in the diet, especially in years of drought and stress. These households on the floodplains usually have a subsistence livelihood, further emphasising the importance of the fishery. The fishermen in the Caprivi are mainly males, using modern gill nets. In contrast, the vendors at the markets are mainly females (frequently the head of a household), who rely on fish sales as the main source of income for their families.

Although the area has a relatively high level of literacy, a high rate of unemployment is present, stressing the importance of the fishery. The study further revealed that the households in the area earn on average N$ 868 (US$108) per month and experience difficult times during November/December to April/May when incomes are low.

Fish are very important in Zambia with approximately 55% of all animal protein coming from fish. More than 300 000 households in Zambia are directly and indirectly employed by this sector.

1.1.2.4 Major stakeholders and their roles, interests and concerns

This section of the report mainly reflects the situation at the beginning of the project but with the addition of the University of Namibia, South African Institute for Aquatic Biodiversity, and African Wildlife Foundation as new stakeholders, and noting relevant new information that has become available. Increased and unsustainable commercialisation of the fishery has occurred since the start of the project, emphasising the importance of the project’s activities to assist and empower the major stakeholders that are dependent on the long-term sustainability of the fishery. The dependent communities need continued assistance to halt the destructive external influences in order to manage their own resources in the future.

Households dependent on subsistence use of the fishery resource

In the Kabbe political constituency (the majority of the project area), Namibia, about 30 per cent of the households depend mainly on fishing for subsistence and income purposes. A large percentage of these households indicate that fishing is critical to the family for survival. The income generated from fishing goes to basic needs such as food, clothing and school fees. Unsustainable commercial fishing is now taking place on the Zambezi River, with increasing numbers of people hiring fishermen to fish for them. These external commercial
interests pose a major threat to long-term sustainability and local livelihoods, and thus the activities undertaken during this project must be sustained and expanded in future.

**Vendors**

The majority of the vendors are women, with many indicating they are the head of the households. For some, fishery is the most important income activity to sustain the family.

**Potential local fishery management structures (i.e. fish associations, conservancies, etc.)**

The fisheries management system is only one component of the broader resource management system, based on the traditional structure at various levels. Access to the fishery under traditional systems is still in place but weakened. Regulations on who can fish where and when are generally followed, although they are difficult to enforce. The traditional authority (the Khuta) has confiscated and condemned illegal fishing gears but not consistently in line with the national legislation. A system of management is present on the Zambian side between the Government and the Traditional Authority, where the traditional system is respected by the DoF and not interfered with, but enforcement is problematic. Conservancies are now managing natural resources in their areas through a system of committees with NGO support and have the potential to take over local fishery management, while outside the conservancies, village fishery committees are increasingly in place to fill the same role.

**Traditional Authority**

The Traditional Authority is the facilitator in relation to the handling of conflicts or disputes. This is particularly meaningful in Caprivi and Zambia where government enforcement of fishery regulations is weak. This Traditional system is transparent and it allows everybody to have a say in the discussion. There is also the right of appeal and the discussion can be taken to the next level in the Traditional Authority. The Traditional Authority is a key role player in future joint management of the fish resource when considering the transboundary aspects.

**Sport fisherman and tourism industry**

Tourism and recreational ventures are important activities, bringing new income opportunities and economic benefits to the rural communities. In Caprivi, several lodges specialise in recreational fishing. The Zambezi and the Chobe Rivers have several excellent large fish species for sport fishing, and tourists come from far to catch tigerfish and large cichlids such as nembwe and threespot tilapia. A study done during a fishing competition (2008) held in the Caprivi indicated the value generated for local business per fish caught was N$ 52. A study was conducted under Phase 1 of the contribution of fishing lodges in the Caprivi Region to the local economy and results were published in 2010 as project Technical Report No 2.1. The results of the quantitative survey indicate that on average fish lodges generate around N$1.80 million total financial benefit per lodge per annum (NS852,000 net economic benefit), equating to N$1,479 per kg of fish caught and not released or N$1,563 per tourist per annum. It is estimated that N$1.11 million of this total is generated on average in
the form of wages, with N$1.06 million wages directly paid to members of the local community.

**Namibia Ministry of Fisheries and Marine Resources**

The Namibia Ministry of Fisheries and Marine Resources is the responsible Ministry for the freshwater fish resources in the country. The line functions of the Ministry are further based on the Namibian Constitution (Article 95) that states “The state shall actively promote and maintain the welfare of the people by adopting “policies aimed at maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future”.

**Department of Fisheries, Zambia**

The Department of Fisheries in Zambia has its head office in Chilanga and falls under the Ministry of Agriculture, Food and Fisheries and has the responsibility to implement fisheries and aquaculture development programmes in the country. Most of the Zambian side of the Caprivi floodplain is covered by the Seseke office, which falls under the control of the Western Province regional office at Mongu, but a small section to the east is under the control of the Livingstone office.

**WWF in Namibia**

The WWF in Namibia has a mandate to assist with the development of capacity in Namibian partner organisations to develop and implement innovative community-based natural resource management (CBNRM) and monitoring systems. As part of this process, WWF staff and partner organizations assist the MFMR and relevant Caprivi stakeholders (conservancy committees, traditional authorities, private sector partners, etc.) to develop, implement, and test pilot fishery management and monitoring systems as part of a broader approach to integrated resource management in Caprivi that also involves wildlife, forestry, and tourism resources.

**Namibia Nature Foundation (NNF)**

The NNF is a national, not-for-profit NGO whose mission is to support sustainable development, to protect biodiversity and ecosystems, and to promote the welfare of people, both present and future. The NNF plans, implements and manages projects and programmes in support of this mission, including CBNRM, transboundary, river basin, biodiversity and livelihoods initiatives. It promotes partnership with community-based organisations, other NGOs, the private sector, government ministries and donor organisations. In this project the NNF employs the project executants, administers and runs the funds, provides technical and administrative support and endeavours to maintain an open and constructive partnership and dialogue with the MFMR on project activities and developments.
African Wildlife Foundation, Zambia (AWF)

AWF developed a fisheries co-management programme for the Zambian sector of the Upper Zambezi River between Kazangula and Sesheke, modelled closely on the Zambezi-Chobe Fisheries Project’s activities in Namibia under the guidance of its regional director, Dr S. Munthali, who is now KAZA Technical Adviser. Regular communication takes place between the project and AWF to continue to harmonise project activities.

University of Namibia (UNAM)

UNAM’s Department of Fisheries and Aquatic Sciences originally concentrated mainly on marine fisheries and aquatic sciences, but with the appointment of the Project Co-Executant Dr. Hay as a Senior Lecturer at UNAM in 2011, freshwater fisheries became a major field within the department. UNAM now contributes to the project’s aims with undergraduates conducting research for the project as part of the B.Sc. curriculum. Furthermore, in collaboration with SAIAB (see below), students are conducting project-linked research programmes for M.Sc. degrees. Three of these students are MFMR scientists, hence contributing to capacity building in the ministry.

South African Institute for Aquatic Biodiversity (SAIAB)

SAIAB is a National Facility in the National Research Foundation in South Africa. The Project Executant, Mr Tweddle, is a Research Associate in SAIAB. SAIAB’s scientists have enormous collective experience in African freshwater fish and fisheries research and management. The institute has become closely involved, in some cases in partnership with UNAM, with the project through supervision of postgraduate students in separately funded research projects that were identified and logistically supported by the project.

Lodge Operators and Guides

Presently, the Zambezi/Chobe River system is routinely exploited by Botswana and Zambia lodges and guides who ferry sport fishermen into the Namibian portions of the system to undertake sport fishing for tigerfish, large cichlids, and barbel. At the start of Phase 2 of the project, the sport fishery did not directly benefit the conservancies or fisherfolk of any country, but it does employ a considerable number of people from the local fishing communities in the lodges and as fishing guides and thus contributes to the local economy. The introduction of a fishery management plan for the Impalila and Kasika Conservancies to derive financial benefits for the conservancies from angling tourism is considered an important goal to be addressed by a coordinated approach from the project and the key stakeholders.

1.1.2.5 Other related conservation initiatives in the project area

The Project liaised closely with the Namibian NGO, Integrated Rural Development and Nature Conservation (IRDNC), which is supporting the formation of conservancies in Caprivi. In addition, and where applicable, the Project coordinated with the Namibia Ministry of Environment and Tourism, which played a key facilitator role in the
establishment of the Kavango/Zambezi Transfrontier Conservation Area (KAZA). KAZA has been fully established during the second phase of the project with an office in Kasane, and the project has coordinated activities very closely with KAZA. The establishment of Fish Protection Areas by the project is now considered a flagship conservation initiative by KAZA. The project linked closely with a parallel project by the African Wildlife Foundation (AWF) on the Zambian side of the river. The project links with the Southern African Regional Environmental Programme (SAREP) to assist in implementing similar transboundary programmes for the Kavango River fisheries. SADC has in place a proposal for a co-management fisheries programme for the entire Zambezi basin. The project is liaising closely with the consultants considering the proposal.

2 PROJECT OBJECTIVES

The second phase of the project began with a set of six projected outputs.

2.1 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.

2.2 Project Purpose

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

2.3 Project Outputs

Output 1: Cross-border collaboration achieved in management of the fisheries resources.
Output 2: Management plan for the fisheries developed during Project Phase 1 successfully implemented (in collaboration with neighbouring countries) for the benefit of the communities.
Output 3: Fish Protection Areas established and fully functional in targeted pilot communities.
Output 4: Tourist angling lodges operating in agreement with local fishing/conservancy committees.
Output 5: Capacity built in research and monitoring of fish resource.
Output 6: Collaboration in next phase of NNF fish ranching project.
3 PROJECT ACHIEVEMENTS

3.1 Project goal and purpose

Contributions to local, national, regional and global (WWF) biodiversity and ecosystem conservation goals, and to natural resource management governance and management

The project’s two phases and the forthcoming follow-up EU-funded project continue to contribute to conservation goals at all levels from local to global. As proposed in the Final Report on Phase 1, the devolution of decision-making and control to the communities as a result of this project is acting as a model for fisheries management in the region, although fully effective and sustainable management of the fisheries in this area has yet to be achieved. The long-term conservation target of maintaining a relatively stable fish population structure and thereby achieving optimal socio-economic goals for the communities continues to be an achievable goal. A great deal remains to be done, however, in terms of improving management capacity in both government and communities.

The EU project will provide assistance for a further four years, during which lessons learned will be extended throughout the Upper Zambezi floodplains. This process has already begun with KAZA playing an increasingly prominent role. Also, the project co-executants are involved in transboundary (Angola/Namibia/Botswana) fisheries training and development of a fisheries management plan for the entire Kavango River system in collaboration with the three fisheries departments and the SAREP programme. Assistance is also being provided to Liuwa Plain National Park in developing a fisheries management plan for the fishing communities in and around the park on the western side of the Central Barotse Floodplain, in a collaborative project led by the South African Institute for Aquatic Biodiversity (SAIAB). The EU project will work much more closely with AWF in strengthening fishing community structures in the Zambian Zambezi fishery between Sesheke and Livingstone.

The project continued to monitor the populations of the Caprivi killifish in Salambala Conservancy. Migrations were observed across this very flat area during heavy rains, showing how the species is able to colonise suitable new pans. Genetic studies have shown that it is a distinct species, although related to *Notobranchius kafuensis*. A description of the species is being prepared by taxonomists abroad. Mr Tweddle and Dr van der Waal have recorded the distribution, migration routes, and associated fish species and will publish this information in a paper accompanying the species description. The importance of this endemic fish is now widely recognised as a result of publicity generated by the project. Awareness of its importance in the area resulted in Mr Tweddle conducting an EIA for a proposed major irrigation scheme just outside the known distribution area of the species. The EIA survey showed that the species did not occur in the pans in the area of the proposed scheme, as the pans were predominantly sandy and unsuitable habitat. The awareness of the need to conserve the species is a valuable contribution to biodiversity conservation.

The project supported research on Lake Liambezi, assisting MFMR with research capacity building and collection of catch statistics in the process. Funding was obtained from four separate sources, i.e. ICEMA, GoGreen, SAIAB(NRF)/UNAM collaboration, and SASSCAL. These research projects were all implemented through SAIAB, which, in collaboration with UNAM, is increasingly becoming a leading institution in capacity building in the area. A fifth proposal has been submitted to the GoGreen fund. The success in
implementing projects has allowed the establishment of comprehensive research programmes covering fish diversity, ecology and productivity of the lake, in addition to biology of important commercial fish species, and collection of catch statistics from landing sites and markets. The ICEMA and GoGreen projects were completed and reports submitted by SAIAB with important management recommendations, fully supporting the detailed recommendations made by the project to MFMR on modifications to the Inland Fisheries Resources Act and associated regulations.

**Contributions to socio-economic situation in the project area**

The long-term goal is to make sure that fish from the Zambezi-Chobe system continues to provide a major source of nutrition to the local population. There is greatly improved awareness in the conservancies/communities/development trusts/traditional authorities of the need to manage the resources for the benefits of the local communities and not outside business interests.

The Sikunga and Impalila Conservancies are already deriving financial benefits from angling tourism in their areas and are getting further support from the Millennium Challenge Account and from the tourism sector to ensure this continues into the future. Further tourism revenue earning opportunities are being explored in the Kasane area.

**Fish farming activities in the region**

Conventional fish farming continues to be unsuccessful due to flooding, high feed and maintenance costs and ineffective management approaches. The fish ranching programme, while small-scale, proved to be sustainable in many of the pilot communities following the cessation of funding and thus withdrawal of project support. Further project support in the EU project, and collaboration with Zambia through KAZA, is therefore planned to expand to new areas.

**Sensitising the communities on management of the resources, including the establishment of Fish Protection Areas (FPAs) as a way of ensuring future fishery sustainability**

The two pilot FPAs set up during the project are proving successful and the conservancies are managing them effectively with guards employed from the local communities. Revenue is now being earned from tourism for the conservancies, and the Millennium Challenge Account is providing support to establish long-term management structures. Sikunga Conservancy is actively considering at least one further FPA in its area, while other conservancies have approached the project to seek advice on setting up FPAs. Once MFMR has formally gazetted the two pilot FPAs, others will be mapped and set up through the forthcoming EU project.

In Zambia, the project’s activities are paralleled by the activities of the AWF project that are modelled on those of this project. The AWF project is successfully setting up village fisheries committees that are acting to eliminate destructive fishing methods. They have also identified several sites to be established as FPAs.
Local fisheries management committees in Namibia are experiencing varying degrees of success. Impalila and Sikunga Conservancies have proved fully successful. Kasika Conservancy has experienced managerial problems that now (end-2012) appear to have been resolved, allowing fisheries management planning to resume in 2013. The Lisikili fisheries committee proved ineffective because of strained relationships between sub-kutas, and therefore the project took a step back until this situation is resolved and a conservancy structure is agreed. The situation continues to be monitored there. The initially highly successful Muyako fisheries management committee for Lake Liambezi was sabotaged by commercial greed, with Zambian fishermen using destructive fishing methods being welcomed to the lake by unscrupulous businessmen. The government authorities have therefore had to take a strong and concerted (MFMR, Police, Customs, Immigration, NDF) enforcement approach to remove illegal fishers. Once this has been achieved and the situation brought under control, a new attempt to establish community management will be made.

**Fisheries data collection**

The fish monitors (eight on the floodplains and initially two but now one on Lake Liambezi) are collecting excellent data on fish catches in their areas. This programme will be strengthened in the new EU project with the aim of developing a statistically sound catch recording system that can be expanded to the rest of the floodplains. This will enable the MFMR to fulfil its obligations under the FAO Code of Conduct for Responsible Fisheries to provide annual reliable catch statistics, which are essential for management decision-making.

The Katima Mulilo fish market survey continued to operate throughout the project and was expanded to monitor the commercial export of fish from Lake Liambezi to Zambia and the DRC.

Training courses were given by the project to MFMR staff and also to Botswana and Angola fisheries staff on data collection and analysis.

Data collected by all the monitoring programmes throughout the project are now being analysed and will be published, both as project Technical Reports and in scientific papers submitted to journals.

**3.2 Constraints and obstacles encountered and action(s) taken to overcome them**

At the end of Phase 1 of the project, the Final Report stated that: “Given the limitations in project financing and staffing, and the lack of support from MFMR in facilitating the transfer of fishery management to the communities by enacting enabling legislation, the project has made satisfactory progress.” This unfortunately remains true three years later. There are several reasons for this. MFMR’s Deputy Director of Aquaculture and Inland Fisheries, Dr E. Klingelhoefller, and therefore in theory the project manager, resigned part way through the project and to-date has not been replaced. Dr Klingelhoefller’s inputs to the project were sporadic, and it eventually became clear that there was very poor communication about the project’s activities being transmitted to MFMR HQ and particularly to the Operations and Planning Directorates. A second major issue is that to-date the MFMR has still not made office space available in the spacious new office building in Katima Mulilo. This means that the essential day-to-day communication necessary to ensure that all staff are fully engaged
with the project is still missing. Since the mid-term review, a major effort has been made to remedy the situation and this is eventually proving successful. Two approaches have produced good results:

(a) Compiling all the project’s reports and recommendation documents into published reports in two series, Technical Reports for completed activities and Field Documents for interim and/or ongoing activities, has enabled the project to transmit its results and recommendations directly to key MFMR personnel. They will be made freely available on several websites.

(b) With the transfer of both the Head of Operations and the Chief Fisheries Biologist to Katima Mulilo, communication about the project has greatly improved and both officers have become key players in improving MFMR-project communication.

Despite this obstacle, the project has achieved all its proposed outputs, albeit with varying amount of success, reflected in the ratings of the logframe and Activities Schedule, included as Annexe 2 of this report.

Although the project has not allowed the continuing constraints to hamper activities towards achieving its outputs, the following issues still remain to be addressed, i.e.

- Non-enactment of enabling legislation for devolution of management to the fishing communities.
- Lack of capacity (financial and human resources) in both the MFMR in Namibia and the Department of Fisheries in Zambia to enable effective surveys and extension work to take place.
- Communities not given sufficient support by MFMR and the project to develop management proposals and explore the possibility of establishing their own fishing rules or setting up pilot closed fishing areas.

4 LESSONS LEARNED

The main lesson learned is unchanged from the first phase, i.e. radical changes in fisheries management methods in a rural environment cannot be achieved overnight.

Regular and consistent communication is essential between projects and government ministries and departments, particularly at senior level. Such communication needs a consistent focal point within each ministry/department, i.e. a senior officer/administrative post specifically tasked with coordination of project and ministry/department activities, to avoid the type of communication problems which arose during this project as a result of inadequate communication through the Director of Aquaculture and Inland Fisheries, exacerbated by his resignation and non-replacement at a key phase of the project.

The previous phase Final Report recommended that a “Technical Advisory Committee” should be set up to oversee the project, including MFMR, DoF, IRDNC, NNF and WWF. It recommended that regular meetings of such a committee should be held to review progress, keep the project on track, and provide support where necessary, e.g. where government decision or approvals are required for necessary actions. For various reasons this still did not happen in the second phase, although the Project Executants made sure that all key organisations were kept very fully informed of developments. Recognising the shortcomings in this approach, the new EU project has been set up with the major goal being the
establishment of efficient networking between all key partner and associate institutions to ensure that all activities are implemented with full participation of all stakeholders.

5 CONCLUSIONS AND RECOMMENDATIONS

The project has been successful in establishing two pilot Fish Protection Areas, and in greatly raising awareness in both Governments and communities of the need for the communities to be fully involved in management of their own natural resources.

The recommendations made by the project (Field Document no 2.4) on changes to the Inland Fisheries Resources Act and associated Regulations need to be implemented. While this process is taking an unacceptably long time, it has a positive side in that communities are starting to take ownership without waiting for government to act, and are making their patience known to senior government officials. With greatly increased awareness by the Conservancies of the problems faced in the fisheries, and the potential positive role the Conservancies can play in co-management, enactment of the proposed revisions to empower the communities should be given high priority by MFMR.

There is now awareness in all institutions and organisations in the region of the urgent need to review the system for issuing fishing permits. Development and implementation of a revised system that empowers the communities to manage the fisheries is urgently required.

The new EU project needs full and effective participation of all partner and associate organisations. The project will not distinguish between partners and associates and recognises all organisations, institutions and government ministries/departments as full and equal participants in the project.

The government ministries and departments involved in fisheries management must recognise the importance of the research and management initiatives of the current and future projects, and incorporate all recommendations based on the information gathered into management of the fisheries.

6 OUTPUTS

List of technical reports and field documents produced by the two phases of the project and those in preparation by end-2012

Technical Reports

Phase 1


Phase 2


Field documents

Phase 1


Phase 2


Reports in preparation

<table>
<thead>
<tr>
<th>Title</th>
<th>Document no</th>
<th>Authors</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compilation of reports produced on the EUS outbreak in the Upper Zambezi area</td>
<td>Field Document no Phase 1/4</td>
<td>Compiled by Ben C.W. van der Waal</td>
<td>Existing reports and papers compiled, await standardised front page for PDF</td>
</tr>
<tr>
<td>Compilation of radio scripts</td>
<td>Field Document no Phase 1/5</td>
<td>Ben C.W. van der Waal</td>
<td>Existing radio scripts to be compiled with standardised front page into one PDF</td>
</tr>
<tr>
<td>Go Green and ICEMA research projects final reports</td>
<td>Field Document no Phase 2/8</td>
<td>Richard A. Peel, Olaf L.F. Weyl &amp; Edosa Omorogie</td>
<td>Reports completed and submitted to funding agencies. Require minor editing and compilation into one PDF with standardised front page</td>
</tr>
<tr>
<td>Conference and workshop presentations on project activities</td>
<td>Field Document no Phase 2/9</td>
<td>Denis Tweddle &amp; Clinton J. Hay</td>
<td>Existing Powerpoint handouts to be compiled with standardised front page into one PDF</td>
</tr>
<tr>
<td>Popular articles and newspaper cuttings on project activities</td>
<td>Field Document no Phase 2/10</td>
<td>Compiled by Denis Tweddle</td>
<td>Existing PDFs to be compiled with standardised front page into one PDF</td>
</tr>
<tr>
<td>Report on SAREP/NNF/MFMR transboundary Kavango fisheries training workshop</td>
<td>Field Document no Phase 2/11</td>
<td>Victoria Mumba, Clinton J. Hay &amp; Denis Tweddle</td>
<td>Brief outline to be expanded with minutes, handouts of Powerpoint presentations, and</td>
</tr>
<tr>
<td>Title</td>
<td>Document Type</td>
<td>Authors</td>
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<tr>
<td>Preliminary analysis of market, floodplain and Lake Liambezi monitoring programmes</td>
<td>Technical Report no 2/7</td>
<td>Clinton J. Hay, James Abbott, Denis Tweddle &amp; Ben C.W. van der Waal</td>
<td>In preparation. More detailed reports and papers will be published later</td>
</tr>
<tr>
<td>Final Technical Report</td>
<td>Technical Report no 2/8</td>
<td>Denis Tweddle &amp; Clinton J. Hay</td>
<td>This document, standardised front page to be added for PDF</td>
</tr>
<tr>
<td>Final Evaluation Report</td>
<td>Field Document no 2/12</td>
<td>Simon Muchina Munthali</td>
<td>Approaching completion</td>
</tr>
<tr>
<td>SASSCAL Project Document</td>
<td>Field Document no Phase 2/13</td>
<td>Anon</td>
<td>Complete, needs standardised front page</td>
</tr>
<tr>
<td>EU Project Document</td>
<td>Field Document no Phase 2/14</td>
<td>Anon</td>
<td>Complete, needs standardised front page</td>
</tr>
<tr>
<td>MCA Grant agreements with Sikunga and Impalila Conservancies for management of Fish Protection Areas</td>
<td>Field Document no Phase 2/15</td>
<td>Anon</td>
<td>Complete, signed agreements to be compiled into one PDF with standardised front page</td>
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ANNEXE 1. REVIEW OF PROGRESS

REVIEW OF PROGRESS MADE IN FINAL YEAR TO IMPLEMENTATION OF RECOMMENDATIONS FROM MID-TERM REVIEW (PROJECT FIELD DOCUMENT NO II/7)

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<th>RECOMMENDATION</th>
<th>PROGRESS</th>
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<td>Legislation</td>
<td>This was finally resolved in November 2012 through meetings in Windhoek with the Permanent Secretary and subsequently the Minister (who is very positive about the initiative) and the MFMR Fisheries Management Committee. Unfounded concerns over the level of community participation in the decision-making process for the FPAs were addressed through further meetings between MFMR staff representing all Directorates, the conservancies, communities and traditional authority. The Traditional Authority in Bukalo, and separately the Area Indunas in Impalila and Sikunga Conservancies, made it very clear to the MFMR that they were unhappy about the time that the MFMR was taking to ratify decisions that they had taken and acted on almost two years previously. Meanwhile, the FPAs received extremely positive press coverage in both TV and press. The success of establishing the FPAs resulted in the Millenium Challenge Account awarding both conservancies grants to assist them in both establishing infrastructure and in managing the FPAs until they are fully functional and independent. The FPAs are regarded as model developments by KAZA and the Sikunga FPA has been visited by a number of conservation agencies to learn about the successful initiative, including Angolan government officials and German international agencies. Furthermore, the manager of the Sikunga Conservancy has been invited to address conservation agencies in an international forum in Johannesburg. Involvement of the private sector in partnership with Sikunga Conservancy was widely publicised in the Namibian media, particularly the donation of a boat by the sponsors of the Zambezi Classic angling tournament to the conservancy to assist in patrolling the FPA. The project has also successfully engaged with, and assisted in guiding, a similar initiative on the Zambian sector of the Zambezi by the African Wildlife Foundation in partnership with the Department of Fisheries and the Barotse Royal</td>
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<tr>
<td>Establishment, where fishing communities are themselves identifying FPAs.</td>
<td>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. The Ministry has now admitted the need to recognise the conservancies in the Fisheries Act and to be able to establish bye-laws in partnership with fishing communities. Further discussions will take place in 2013, in which the new EU project should be able to play an active participatory role.</td>
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| 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 has actively engaged with KAZA and assisted that organisation in becoming more widely integrated into aquatic resource conservation in the project’s area. The project identified the potential to not only continue support in the Namibian project area but also to expand the initiative to other rivers in the KAZA area, and secured a further four years of project support through the EU. The project has engaged with SAREP to assist in developing fisheries management plans and monitoring programmes for the Kavango River in Angola, Namibia and Botswana, and this partnership will be greatly strengthened in the new EU project. |

| 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 established two formal, numbered report series. Technical Reports cover complete stand-alone reports such as commissioned consultancy reports, reports on completed fisheries initiatives, and project final reports. Field Documents are designed to report on work in progress and include, for example, reports on project workshops, documents on actions taken by the project with regard, e.g. to establishment of FPAs, and the project’s recommendations for changes to legislation. Research projects were identified by and supported by the project, which also sourced funding. Being separately funded and administered, the final reports of such projects do not qualify as full Technical Reports for the project, but they are legitimate project outputs and hence included in the Field Document series. From the two phases of the project, nine Technical Reports and 11 Field Documents have been published so far, with a minimum of 12 further documents to be completely imminently (including EUS documentation for activities supported by the project, radio script compilation, compilation of project presentations at international conferences, compilation of popular articles, final evaluation and final project reports, project documents for MCA |
grants, EU and SASSCAL projects, fisheries monitoring report, market survey report). A further, third series of reports will be a compilation of archival material on the Caprivi fisheries resulting from previous projects funded by other donors including USAID as well as NORAD. Scientific papers emanating from the project will include a paper on challenges in management of African river and floodplain fisheries with emphasis on the Zambezi, a book chapter on relationship between Zambezi recreational and commercial fisheries, a paper on distribution and migration patterns of the Caprivi killfish, a paper on the development of FPAs comparing successes and failures, and papers on trends in fish catches and market data. Two posters have been produced, but printing will only take place next year in the EU project. One, on “Protecting Caprivi Fish stocks for Future Generations”, was held up by the MFMR delay in gazetting the FPAs, while the other, illustrating the fishes of the region, was delayed to allow for the collection of greatly improved photos of the fishes as a result of improvement in camera technology.

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.

The project takes care to ensure that the communities have ownership of their activities, and simply provides support and advice when necessary. The Impalila and Kasika conservancies hold transboundary meetings every second month with their Zambian counterparts in Sekute Trust and invite all relevant government departments as well as the project. The communities have made it very clear to MFMR that the activities they have initiated to protect their fish stocks and fisheries are theirs and theirs alone. As an example of this, a supplement to Field Document no II/6 will be published, documenting further progress towards the implementation of the Fish Protection Areas. The project continues to help to bring together the stakeholders for discussions, including angling and tourist groups, but usually takes a back seat in discussions, except when asked for scientific advice. 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.

A major and specific concern here during the midterm review was the apparent weakening of the Muyako fisheries committee’s control over activities on Lake Liambezi. The project therefore commissioned a consultancy to review the committee’s structure and effectiveness. This review was unfortunately rather weak and did not address the
main issue surrounding the conflicts of interest evident in the community members involved in the fisheries, where commercial greed is adversely affecting the community’s control measures. With regard to other communities supported by the project, the issues affect various cross-cutting sectors. Conservancy committees have responsibilities for all natural resources, not just fish. Sikunga Conservancy committee is proving successful in its various activities to protect both fish stocks and wildlife. Impalila has functioned successfully, but now issues over financial mismanagement have arisen. Kasika did not have a fully functioning management structure at the time of the mid-term review, but the new committee is now engaging very positively with the project. The Lisikili area has had major issues with internal conflicts between its separate communities and therefore the project has pulled back from its involvement there until the communities can get their act together and establish a unified conservancy structure. There is now some expectation that this will be established in the foreseeable future.

In Zambia, the AWF has taken the initiative in establishing village and area fisheries committees. The new EU project will engage actively with these in close cooperation with AWF, DoF and the BRE.

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.

MCA grants have been secured for the Sikunga and Impalila Conservancies for the management of their FPAs. Activities include major publicity campaigns inclusive of posters and brochures about the nature and purpose of the FPAs. These projects fully address the comments in this recommendation. In addition, the project attends conservancy AGMs and provides assistance in answering questions raised about fisheries issues.

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.

This activity has been written into, and is a major component in, the new EU project. The project has also secured the endorsement of the BRE for transboundary visits by Namibian conservancies and Zambian fisheries committees.

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

This will be done through the MCA project activities, and in addition through the forthcoming posters. Monitoring results from the community fish monitors employed by the project will also be packaged for easy understanding of fisheries trends at the local level.
include the development of a monitoring system which could include methods developed in the events book used for wildlife.

<table>
<thead>
<tr>
<th>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.</th>
<th>Posters and pamphlets are included in the MCA projects, in addition to the project’s two posters to be published in the near future. Positive media coverage has been achieved for the FPAs. Sikungu Conservancy has been visited by many organisations, including an Angolan delegation, to learn about the success of the FPA.</th>
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<tr>
<th>The project should investigate possible strategies for revenue sharing from angling license sales and the devolution of the responsibility for licensing to local communities.</th>
<th>Awareness is filtering into the MFMR that this is a major issue that needs to be addressed. After sensitisation by the project in various meetings, the conservancies themselves are strongly lobbying through appropriate channels for the rights to manage their licensing, and to register their own fishing communities. KAZA is now lending support to this initiative also.</th>
</tr>
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</table>

### Research

<table>
<thead>
<tr>
<th>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:</th>
<th>This report is in preparation, both for the fisheries monitoring and for market data. Preliminary results show a high standard of monitoring and results that can be used immediately for management recommendations.</th>
</tr>
</thead>
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<tr>
<th>Facilitating the assessment of available fisheries monitoring data to provide a report on the status of the fisheries at the end of 2012.</th>
<th>The project has engaged with the MFMR to secure agreement that the ministry will fulfil its obligations under its membership of the FAO Code for Responsible Fisheries to provide accurate catch data for its fisheries. This entails having an affordable, but statistically sound monitoring system in place. In addition to this need to secure MFMR commitment, time constraints on the part of project personnel and the consultant provisionally engaged to set up such a system (Dr Olaf Weyl of SAIAB), and the securing of a new EU project that will allow continued involvement by project staff, led to a decision to postpone the establishment of the system until 2013. Databases have been established through the project for the storage and analysis of the monitors’ data, while analysis of data collected by the project so far is nearing completion.</th>
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</table>

<p>| Developing a statistically 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. | It was not feasible to organise a major activity such as |</p>
<table>
<thead>
<tr>
<th>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.</th>
<th>a transboundary frame survey within the final year of this project. It is recognised that a new frame survey is necessary and this will be addressed in discussion with MFMR and Zambia DoF during 2013.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take a proactive role in ensuring that the research results from the three research projects are communicated to the fisheries management authorities.</td>
<td>The project has done this through widely circulating the final reports of the two completed research reports (GoGreen and ICEMA), and through emphasising: (1) the recommendations of the GoGreen project in particular in meetings with senior MFMR personnel (Minister, PS, FMC); and (2) the need to take notice of the recommendations in the revision of Namibian legislation. The results have also been drawn to the attention of DoF and AWF in Zambia.</td>
</tr>
<tr>
<td>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.</td>
<td>A project proposal to do this has been submitted to the GoGreen initiative. Funds have been secured through the SASSCAL project for Mr R. Peel to complete his PhD on the fisheries ecology of Lake Liambezi, following his achievement of a distinction in his MSc study, incorporating also research projects for MFMR staff to complement the PhD research programme.</td>
</tr>
<tr>
<td>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.</td>
<td>The project funded a visit by Dr James Abbot of Nipissing University, Canada, a socio-economist with considerable experience of Caprivi fisheries issues, to develop ideas for further socio-economic research. The visit has resulted in plans for publication of existing data and ideas for further socio-economic studies that will be pursued during the new EU project. In addition, a separate in-depth study of the socio-economic structure of Sikunga Conservancy is underway by the University of Hannover in Germany, to aid in the development of a comprehensive management plan for all the natural resources of the conservancy, under the Green Development Initiative. The Zambezi/Chobe project is actively involved in the planning for that project.</td>
</tr>
<tr>
<td><strong>Reporting and replication</strong></td>
<td><strong>Despite the discontinuation of</strong></td>
</tr>
<tr>
<td>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.</td>
<td>The project engaged a consultant (Ms C. Murphy) to</td>
</tr>
<tr>
<td><strong>This has been done through the Technical Report and Field Document series described above. These will shortly also be made available on-line. In addition, all data are now consolidated in a central database, with separate copies stored elsewhere on external hard drives in case of loss of any one or more copies through inevitable hardware malfunctions.</strong></td>
<td><strong>The project engaged a consultant (Ms C. Murphy) to</strong></td>
</tr>
<tr>
<td>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.</td>
<td>Evaluate the fish ranching programme. The results of this review were encouraging and therefore the project included renewed support for fish ranching in the activities of the EU project proposal. The project has now also engaged with AWF in Zambia and KAZA to develop joint fish ranching initiatives.</td>
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<tr>
<td>The project should develop “toolbox” and “lessons learnt” documents that could be used as manuals in the process of fish conservancy and FPA formation.</td>
<td>The Field Document of the establishment of the FPAs fully documents the steps that were taken to ratify the FPAs under existing government legislation through the conservancies, Traditional Authority and Regional Council. A further Field Document will be put together on the follow-up activities.</td>
</tr>
<tr>
<td>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.</td>
<td>This is in place as described above.</td>
</tr>
<tr>
<td>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.</td>
<td>This recommendation covers several different activities. The project is producing a full, comprehensive Final Report, with an external consultant producing an Evaluation Report. Data on the fisheries are currently being analysed and published. The MFMR is responsible for enforcement patrols in general, while FPA patrols are undertaken by community guards appointed by the conservancy. FPA structures will be strengthened through the MCA grants.</td>
</tr>
<tr>
<td>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.</td>
<td>Recognising that the MFMR has not yet the capacity to fully implement the strategies put in place during the two phases of the Zambezi/Chobe project; and recognising that the successes of the project in working with conservancies to develop successful FPAs can be implemented more widely in the region, the project developed a new project proposal for submission to the EU for funding under its Food Security Thematic Programme (FSTP). This new project will continue the activities of the present project; extend lessons learned to the other rivers and floodplains of the Upper Zambezi, Kwando and Kavango river basins; and support and integrate other research and management projects in the region. The project, under NNF, partners and/or associates with...</td>
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</table>
MFMR Namibia, DoF Zambia, Fisheries departments of Botswana and Angola, ORI, SAREP, SASSCAL, KAZA, AWF, SAIAB, HIFI (Hull).
The project is for four years and should in that time thoroughly integrate all fisheries co-management activities by the countries under the KAZA umbrella to ensure long-term success.
## ANNEXE 2: PROGRESS AGAINST INDICATORS

This table lists the projected outputs and rating of the progress made towards the outputs, together with a brief assessment of the activities. Success in activities is simply measured with green, amber and red categories. For the overall goal and objectives, it is considered that this gradation does not adequately reflect the degree of success, and thus achievement is rated in different shades of green, darker green reflecting greater overall success.

### Goals and Objectives

<table>
<thead>
<tr>
<th>Goals &amp; Objectives</th>
<th>Indicator (what you are measuring)</th>
<th>Baseline (December 2009)</th>
<th>Current status (December 2012)</th>
<th>Data Source/ Means of Verification</th>
<th>Planned Final Result, December 2012</th>
<th>Achievement Rating</th>
</tr>
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<tbody>
<tr>
<td><strong>Project Goal:</strong> The shared Zambezi/Chobe River fisheries resources sustainably managed by promoting transboundary coordination and collaboration on the introduction of fully integrated fishery management systems.</td>
<td>Local fishery management structures operational (i.e., conservancy committees, Fisheries Committees, Traditional Authority, etc.) (minimum of 4) New fishery management practices introduced at local level, including gear restrictions and mandatory licensing, Fish Protection Areas, sport fishery agreement with conservancies etc.</td>
<td>Fisheries committees (4 in total) in Caprivi and in Zambia formed but not yet mandated to take over responsibilities for fisheries management. Five Fisheries committees formed in Caprivi. Muyako Committee initiative to introduce local rules and manage the fishery at Lake Liambezi with MFMR acting in advisory capacity has suffered through intervention of unscrupulous outside business interests employing foreign fishers. Integrated law enforcement approach unfortunately now necessary and being implemented. After this, fresh community initiative will be attempted in 2013. FPAs established with approved management plans, and fully and effectively functioning in Sikunga and Impalila Conservancies despite delays in formal ratification by MFMR.</td>
<td>Fish Protection Areas officially proclaimed. Fisheries Committees managing the FPAs. Official agreement between communities and Lodge owners on FPAs. FPAs fully functional with approved management plans. Conservancies Act harmonised with Inland Fisheries Act to allow full management rights for conservancies Inland Fisheries Act regulations include recognition of community-based regulations MFMR assisting in</td>
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<tr>
<td>Goals &amp; Objectives</td>
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<td>Negotiations succeeded in sourcing funding from Millennium Challenge Account, Nwanyi Angling Club and private sources for management of FPAs by conservancies.</td>
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<td>development of management plans with fishing committees based on Lliambezi model.</td>
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<td>Close cooperation established between Sikunga Conservancy, angling and tourism lodges in managing the Sikunga FPA.</td>
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<td>Successes widely publicized and conservancies being visited by conservation and international delegations to learn from experiences.</td>
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<tr>
<td>Zambian fisheries committees established with assistance of AWF and the support of the Barotse Royal Establishment (BRE) have now agreed to the establishment of several FPAs in Zambia.</td>
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<tr>
<td>Agreement of BRE and DoF obtained for reciprocal visits by fishers’ representatives.</td>
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<tr>
<td>Excellent cooperation established between Impalila and Kasika conservancies, Sekute Trust, Sekoma Island Lodge, and government departments in managing natural resources including fish in the eastern project area.</td>
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<tr>
<td>MFMR accepts the need for review of the inland fisheries legislation to harmonise with the Conservancies legislation and empower communities to manage their resources, and the importance of organising licensing through the conservancies. Discussions will continue beyond the end of this project.</td>
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### Output 1: Cross-border collaboration achieved in management of the fisheries resources

<table>
<thead>
<tr>
<th>Meetings of senior fisheries staff from three countries at least biannually (target of at least five meetings during duration of the Project). Minutes produced and communicated to local officers. Regular (at least monthly) joint (Namibia and Zambia) patrols done and arrests made.</th>
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<tbody>
<tr>
<td>Communication between countries established and strengthened in latter part of Phase 1. No formal cross-border collaboration meetings have been held to date.</td>
</tr>
<tr>
<td>Joint patrols (Zambia, Namibia &amp; Botswana) conducted on the Zambezi &amp; Chobe Rivers. Conservancy meetings attended between Zambia, Botswana &amp; Namibia. Transboundary Joint Commission fisheries sub-committee meeting and workshop held in January 2011. Minutes and all proceedings and presentations from workshop initially published on CD and then in Field Document no 2/3. Minutes are available for fisheries sub-committee meeting held between MFMR and DoF. The respective government departments have not, however, continued with further meetings as agreed. Nevertheless, in the absence of government departments commitment, communities themselves have established excellent cooperation, e.g. Impalila and Kasika conservancies, Sekute Trust and Sekoma Island Lodge meet bimonthly to discuss management of natural resources including fish in the eastern project area, and government departments are invited to attend these meetings. Meetings held in DoF HQ, Chilanga to review harmonisation of legislation. Approval received to work with all relevant stakeholders in Zambia with DoF and BRE. AWF in Zambia now working with DoF and BRE to develop management strategy for Zambian sector of Caprivi floodplain. Strong links now established with KAZA office in Kasane to discuss future fisheries management strategy throughout KAZA project area. Meeting held with Kasane tour operators to discuss possible management options for Chobe River fishing/tourism. Kasika Conservancy accepts in principle idea of FPA in Chobe River to promote tourism. Negotiations will continue in 2013 through the EU project and KAZA.</td>
</tr>
<tr>
<td>Minutes available of cross-border meetings held. ToR developed and agreed of cross-border committee. A joint work plan of the cross-border committee produced. Joint patrols held between MFMR and DoF.</td>
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<tr>
<td>Cross-border committees functioning effectively</td>
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**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.**

| Published management plan | Draft Namibia Management Plan developed in first phase, incorporating recommendations from research reports, CBNRM reports and Evaluation report | Management plan, primarily for project activities, published as FD no 1.2. MFMR now recognises impracticality of issuing licences only through the Regional Council, whereby only 20% of fishermen have valid licenses, and will consider proposals for amendments to Inland Fisheries Resources Act to address this problem. The issue has been taken up by conservancies and also by KAZA. Muyako committee established own management plan for Lake Liambezi closely in line with project aims. Fishermen there originally adhered to stricter rules than under Inland Fisheries Resources Act, but commercial greed has created difficulties with an influx of foreign fishers, resulting in the need for strong external coordinated management intervention. Conservancies developed management plans for FPAs following guidelines. Conflict between tourism and fishing sectors in Chobe River drawing press attention – project has taken on mediation role and Kasika Conservancy accepts in principle idea of FPA in Chobe River to promote tourism. Project is reviewing harmonisation of Zambia and Namibia legislation. Monitoring continues smoothly. Data analysis nears completion and shows very clear trends that verify the excellent quality of data being collected by community monitors. |
| Minutes of stakeholder meetings showing approval Reports from field officers Fishermen licensed and abiding by agreed regulations MFMR and Zambia enforcement staff working in close consultation with management committees. Monitoring indicates stabilisation/improvement of fish stocks. | Fish guards reports on Fish Protection Areas (monthly reports) | Communities managing their own resources with assistance from government. Monitoring programme in place. |

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

| Fish Protection Areas (a minimum of 4) gazetted by MFMR under inland fisheries regulations with defined boundaries, as per community requests Monitoring indicates absence of fishing | Fishing in main river channels currently a free-for-all Currently no reserves proclaimed Lodges report severe stock depletion by illegal fishing methods | Letters signed by Impalila and Sikunga conservancies to manage their own FPAs. Requests approved by Regional Council and Traditional Authority. Minister approved FPAs verbally, dependent on production of management plans. Management plans developed in stakeholder workshop and submitted to Minister for ratification. |
| Fish guards reports on Fish Protection Areas (monthly reports) | Fish protected Areas proclaimed and managed by the communities. Fisheries committees fully functional and involved in the management of FPA. |

| Communities managing their own resources with assistance from government. Monitoring programme in place. | FPAs fully functional, well-established, well-managed, and recognised by all stakeholders. |
| Lodges cease complaints | Field Document no 2/6 published detailing all steps taken in establishing the FPAs, including draft Government Gazette notice for Minister to review. MFMR Minister, PS and Fisheries Management Committee briefed. Minister again reiterates desire to gazette FPAs. MFMR delegation re-briefed by all relevant community structures in Caprivi on consultation process. Report on process submitted by MFMR delegation to Minister. Negotiations succeeded in sourcing funding from Millennium Challenge Account, Nwanyi Angling Club and private sources for management of FPAs by conservancies. Impalila and Sikunga Conservancies successfully managing FPAs having employed fish guards for the purpose. Successes widely publicised (printed media, local radio and national television) and conservancies being visited by conservation and international delegations to learn from experiences. Zambian fisheries committees established with assistance of AWF and the support of the Barotse Royal Establishment (BRE) have now agreed to the establishment of several FPAs in Zambia. Agreement of BRE and DoF obtained for reciprocal visits by fishers’ representatives. Close cooperation established between all stakeholders including tourist lodges and angling organisations. Three additional requests received from communities to assist with FPAs in their areas. |
| Contributions from angling fees paid to lodges to committees/conservancies. Catch records from lodges. | Friction between lodges and MFMR over licensing enforcement. Complaints about falling catches. No Fish Protection Areas. Several meetings held between lodge owners & Sikunga conservancy. Lodges, Nwanyi Angling Club and communities fully agree on FPAs and angling club actively engaging with conservancies to draw up management agreements. Minutes available of meetings held between lodges and communities discussing management aspects. Extension of agreements to FPAs as they become established. |

**Output 4:** Tourist angling lodges operating in agreements with local fishing committees/conservancies.
Establishment of Fish Protection Areas (a minimum of 4) and agreements over catch & release angling.

Nwanyi Angling Club obtained sponsorship for a boat and engine to assist Sikunga Conservancy’s community-employed fish guards to protect the FPA.

Some Impalila and Zambian lodges already paying conservancy to fish in Kasaya Channel FPA.

Sekoma Island Lodge, Zambia, fully involved in bi-monthly transboundary meetings with Sekute Trust and Impalila and Kasika Conservancies, and provided Impalila Conservancy with boat engine to control Kasaya Channel FPA.

Reports received from lodges and communities stating benefits received from FPA.

| Output 5: Capacity built in research and monitoring of fish resource | MFMR Officers attendance on courses | Newly appointed scientist has degree and training in GIS | Two MFMR staff members, E. Simasiku and V. Mumba, will complete MSc theses in 2013. The Chief Fisheries Biologist now based in Katima Mulilo, C.Munwela, obtained his MSc with guidance from Project Co-Executant Dr Hay. 13 other MFMR staff indicated interest in doing post graduate studies. A Zambian student, Mr R. Peel, obtained his MSc with Distinction from UNAM for research on Zambezi, Liambezi, Kwando and Kavango fishes. Two potential Zambian postgraduate students have been identified to be supported under the new EU project. Four 4th year students from UNAM (two Angolan) did their studies under project supervision by Dr Hay. Project assisted with five research proposals, four funded and one newly submitted. Two were completed and reports published by end-project, the third is well-advanced and the fourth starts in February 2013. Two draft posters prepared and displayed at conference of South African Society of Aquatic Sciences (SASAqS), constructive comments received and being incorporated in final design. Translation completed. Excellent new photos now available, particularly for fish, and being inserted. Publication delayed until FPAs are formally gazetted, but will now take place in early 2013. Two scientists from MFMR receiving Master degrees. Scientists from MFMR develop research proposals and implement research activities. Papers published in international journals. Scientific papers published. Ongoing statistical analysis based in MFMR. |}
<table>
<thead>
<tr>
<th>Output 6: Collaboration in next phase of NNF fish ranching project</th>
<th>Progress reports from NNF consultant Ms P. Lilungwe on project activities and collaboration with CCP project</th>
<th>Successful stocking of 34 pans/ponds in first phase, growth monitored, many requests for project expansion to new areas</th>
<th>Fieldwork for research on growth rates of important fishes completed in relation to most suitable species for ranching. Report on project published and MSc thesis submitted to UNAM and passed with distinction. Unsatisfactory relationship between fish ranching and fish farming components of CPP project. Main project funding by CPP project discontinued. MFMR failed to recruit Ms Lilungwe to continue project activities under Ministry auspices. Reports on continued fish ranching by communities supported during the project led to evaluation by project consultation, report no. TR2/5. Positive findings led to incorporation of renewed fish ranching programme in EU and KAZA projects, including coordination with small-scale fish farming in Zambia. Reports published on results attained. Growth rates of fish stocked presented.</th>
</tr>
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<tbody>
<tr>
<td>Paper on Lake Liambezi management completed and published as project report no. Technical Report no. 2.4. Scientific papers including comprehensive data from research programmes to be submitted for publication. Catch monitoring programme extended and improved. Market monitoring programme extended and improved to include bulk export as well as retail sales. Papers on monitoring programmes being prepared for publication. Several popular articles written and published about Caprivi fish and fisheries. Presentations on project made to SASAqS conference in SA, June 2011 and to World Fisheries Congress in Edinburgh in May 2012.</td>
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### Activities

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

**Activity 1.1:** Meetings held between senior fisheries staff of the three different countries to lay the foundation for the establishment of the cross-border committee.

Project hosted a workshop in which it facilitated first Fisheries sub-committee meeting of the Namibia-Zambia Joint Commission. MFMR holds regular Fisheries sub-committee meetings of the Namibia-Botswana Joint Commission, primarily over Kavango River issues. Bi-monthly transboundary meetings held between Impalila and Kasika Conservancies in Namibia and Sekute Trust in Zambia, to which all relevant government ministries are invited and in which the Project Executant plays a prominent role. In partnership with SAREP Project, Project Executants conducted transboundary training workshop for Kavango River research staff from Botswana, Namibia and Angola. Project Executants involved with SAREP in development of joint research and monitoring programme for the Kavango River, and are now developing a transboundary Fisheries Management Plan for the Kavango River.

**Activity 1.2** Workshop held with all stakeholders (Namibia, Botswana and Zambia) for the formation of the cross-border committee and the development of the ToR.

The establishment of a cross-border committee requires the full participation of each of the countries, and influencing this proved to be beyond the scope of the project. Instead, the project adapted to the situation by establishing close links with all the stakeholders through a variety of fora, including the Fisheries sub-committees of the government joint commissions, the transboundary meetings of Conservancies and Development Trusts, close coordination with SAREP for Kavango, AWF and BRE for Upper Zambezi, SADC in connection with a proposed entire Zambezi Co-management Project, and KAZA for natural resources management throughout the KAZA area. Many transboundary workshops and information sharing exercises have taken place during the project, e.g. (1) the Namibia-Zambia Joint Commission Fisheries sub-committee, (2) Bi-monthly Namibia-Zambia Transboundary Conservancy-Trust meetings, (3) SAREP workshops for Kavango Transboundary Fisheries Management Plan, and research and monitoring training, (4) Okavango Basin Management Biodiversity Working Group, (5) meetings in Zambia DoF HQ and with PFO, Western Province to strengthen collaboration, (6) SADC workshop to prepare a workplan for improving the knowledge and information base for adaptive co-management of shared fisheries resources in the Zambezi basin, (7) KAZA collaboration, etc.

The success of these activities has been recognised through the establishment of a new EU-funded project to expand activities throughout the KAZA region.

**Activity 1.3:** Close links will be set up with the MFMR, Namibia the DoF, Zambia, and Fisheries Section, Botswana, to facilitate the flow of information between the fishermen and the three Government departments. Additionally, steps will be taken to incorporate representatives from the Botswana Fishery Department and Department of Wildlife and National Parks to coordinate fishery management issues along the river frontage of the Chobe National Park.

Flow of information between fishermen and government departments has been greatly enhanced by the project through the links established and described under Activity 1.2. The project has been active in coordination of activities adjacent to Chobe National Park. Kasika Conservancy experienced a lengthy hiatus in management activities due to a poorly functioning committee, but a new committee established towards the end of the project is now much more active and is now engaging positively with the project to register its fishermen and develop plans for a FPA along the Kasane/Chobe NP river frontage. Kasane tourism representatives and KAZA are important and willing stakeholders in this initiative.
Activity 1.4: Cross-border committee meetings at senior level held on a bi-annual basis.

The project funded the first Namibia-Zambia Joint Commission Fisheries Sub-Committee meeting as part of a major information-sharing and planning workshop in January 2011. Subsequent meetings are supposed to be organised and held bi-annually by the respective government ministries. Unfortunately, commitment by MFMR in Namibia and DoF at local level in Zambia has not been met by equivalent commitment in DoF HQ in Chilanga and no further meetings have taken place. The project is helping to find a way round this impasse by engaging directly with the Western Province PFO in Mongu, AWF, the Barotse Royal Establishment, and KAZA to achieve its goals. The project has succeeded in engaging the Zambia DoF as a full partner in the forthcoming EU project and hence improved communication is anticipated in future.

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

Activity 2.1: Workshop to present Zambezi transboundary management plan developed by the end of Phase 1 of the project to stakeholders and to receive their endorsement and support.

The management plan developed at the end of Phase 1 of the project was published as project Field Document no 1.2.

IRDNC hosted a Community Based Transboundary Natural Resource Management Workshop in November 2010 attended by all the relevant stakeholders, at which the transboundary fisheries issues were thoroughly discussed. Stakeholder engagement by Impalila and Kasika Conservancies and Sekute Trust has been exceptional. Kasika Conservancy had a rather weak management structure for most of the project although it remained an active member of the bi-monthly transboundary meetings with its neighbouring organisations. The new committee is now engaging actively with the project and there are high hopes for successful development and implementation of a fisheries management programme during the EU project.

Activity 2.2: Training of the different role players highlighted in the management plan ensuring efficient execution of the different tasks outlined.

The project trained 10 fish monitors to collect fishery dependent data.

Training courses were held for scientific staff in the region as described in Activity 5.1 below.

On-the-job training took place throughout the project. In particular, the Co-Executants gave copious advice and assistance in understanding fisheries management issues to the floodplain communities.

Activity 2.3: Set up of all institutions as outlined in the management plan.

Establishment of the Inland Fisheries Council was outside the remit of the project, depending on action by MFMR, which is not yet forthcoming. The project continued to support the fisheries committees that were set up and is giving advice to other areas in Caprivi. Similar activities are taking place in Zambia with AWF assistance. The pilot FPAs were set up and are fully functional despite the long delay in getting the FPAs officially gazetted by MFMR.
### Output 3: Fish Protection Areas established, gazetted and fully functional in targeted, pilot areas.

<table>
<thead>
<tr>
<th>Activity 3.1: Develop a ToR for the Fisheries/Conservancy Committees.</th>
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<tbody>
<tr>
<td>The Conservancies are supported in setting up their management structures by IRDNC. ToR will be developed for the FPAs under the MCA grants to the conservancies following gazetting of the FPAs.</td>
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<tr>
<th>Activity 3.2: Facilitate the devolution of power to the community level by implementing, through MFMR, the proposed amendments to the fisheries legislation.</th>
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<tr>
<td>Recommendations on changes to the Act and Regulations were submitted to MFMR (Field Document no 2.4). The process is taking an inordinate length of time in MFMR but indications are that the recommendations have been taken on board and will be incorporated in a revised Act with Regulations. The existing Act lacks two key points: (1) Recognition of Conservancies’ rights to management of fish stocks as part of their natural resources, and (2) the need for recognition of bye-laws proposed by fishing communities to allow for flexibility in management of different fish stocks in different types of water bodies. The project considers present Regulations to be unnecessarily complicated and difficult to remember or understand, and therefore suggests simplification to concentrate on prohibiting universally destructive fishing gears while allowing for community involvement in strategies for managing the separate and varied water bodies in the different river systems in Namibia.</td>
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<tr>
<th>Activity 3.3: Finalise the management structures of the Fish Protection Areas through a consultative process from all stakeholders, including tourist lodges.</th>
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<tr>
<td>The Sikunga and Impalila Conservancies have successfully implemented and are managing two pilot FPAs. This followed a extensive and fully documented consultation process in the communities with full support of tourist lodges and the Nwanyi Angling Club. The conservancies developed detailed management plans for the two pilot FPAs in a stakeholders’ workshop organised by the project. The full process was published as Field Document no 2.6. The project assisted the conservancies to obtain grants from the Millennium Challenge Account to implement their management programmes, and during the new EU project the Project Executants will continue to support the conservancies and assist in managing the grants. In Zambia, new fishing committees established with assistance from AWF are identifying their own FPAs following the model established in this project.</td>
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<tr>
<th>Activity 3.4: Boundaries of Fish Protection Areas defined and gazetted in legislation on agreement by Traditional Authority, Regional Council and MFMR.</th>
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<tr>
<td>The conservancies established the boundaries for the FPAs and mapped them with the assistance of the project. The boundaries are included in the management plans in the draft government gazette notice submitted to the Minister for approval. The Project Executants made a further presentation to the Minister and the Ministry’s Fisheries Management Committee to motivate for gazetting and then produced a further set of documents from the communities to address questions about full stakeholder involvement to allow the Minister to gazette the FPAs.</td>
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**Activity 3.5:** Management systems designed, implemented and enforced in targeted Fish Protection Areas.

The conservancies have successfully implemented the FPAs and are effectively enforcing them. Capacity is being further enhanced through the MCA grants.

**Activity 3.6:** Identify sites (in collaboration with stakeholders) for, and establish additional Fish Protection Areas.

Discussions are underway for the establishment of a FPA in the Chobe River frontage to Kasane town and Chobe National Park. Further representations have been made by communities in other parts of Caprivi to establish FPAs. Caprivi communities have also agreed with KAZA that where wildlife corridors are established that cross water courses, those waters will also be established as FPAs to avoid human-wildlife conflict there.

In Zambia, new fishing committees established with assistance from AWF are identifying their own FPAs following the model established in this project.

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

**Activity 4.1:** Facilitate the decentralisation of the issuing of recreational fishing licences.

This is beyond the scope of the project to achieve, but the project has made progress in convincing the various government authorities that change to the present system is essential. This issue also extends to the issuing of net fishing licences. KAZA is also strongly motivating for licensing to be carried out at community level. Because of the progress in awareness-raising, an amber rating is considered acceptable despite the failure to achieve measurable progress.

**Activity 4.2:** Workshops with fishing committees/conservancies, Regional Council, Traditional Authorities and fishing lodges to discuss the role of the committees and Fish Protection Areas, and develop agreements on resource use.

Numerous meetings, workshops, and one-to-one discussions have taken place, and the informal agreements currently in place between conservancies, tourist lodges and Nwanyi Angling Club are considered a major achievement by the project. The next step is to develop formal signed agreements between the stakeholder organisations. These should become possible once the FPAs are gazetted and activities using the MCA grants are fully operational. With Kalizo Lodge under new ownership from December 2012, further discussions will be held. Engagement with Zambian stakeholders will also take place through the established collaboration with AWF and the BRE.

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

**Activity 5.1:** Training schedule developed and implemented for MFMR staff from the Caprivi.

MFMR staff were identified for involvement in the research and monitoring programmes. These included Evans Simasiku, Fisheries Biologist based at KIFI, Joseph Lubanda, Research Technician at Katima Mulilo, and Laimi Haungeda, Research Technician at Katima Mulilo (now unfortunately left MFMR). In addition, Christopher Munwela, now Chief Fisheries Biologist at Katima Mulilo, obtained his MSc on the fishery of the Kavango River under the supervision of Project Co-Executant Dr Clinton Hay.

Mr Simasiku is currently carrying out research on the Lake Liambezi fishery for his MSc, registered at Rhodes University and supervised by Dr O. Weyl and the Project Executant Mr D. Tweddle.
Mr Lubanda is responsible for collection of catch data from the Lake Liambezi fishery and managing the data collected by the project’s field monitors and the market surveys.

Following a workshop held at KIFI in the first phase of the project in September 2009 to train scientists and technicians in data collection, database management and basic data analysis, further training workshops were held in the current phase. In October 2011 a data collection and analysis workshop was held in Katima Mulilo, to review all the types of data being collected by the project and show how the results are brought together to provide information for fisheries management.

A transboundary training workshop on fish identification, data storage and analysis, monitoring and fish diseases was held at KIFI in April 2012 for scientists from Angola, Namibia and Botswana who are working on the Kavango River fisheries. This was a joint exercise by the project, SAREP and MFMR.

Four research projects were identified by the project and funded was obtained for each. Each of these projects included MFMR scientists. The projects were:

1) GoGreen funding: Kavango/Caprivi Fisheries Research Project, supporting research on the relative abundance and biology of the three most important cichlids in the fishery, the threespot tilapia *Oreochromis andersonii*, the greenhead tilapia *Oreochromis macrochir* and the redbreast tilapia *Tilapia rendalli*.

2) ICEMA funding: Recommendations for the best source of fingerlings for stocking.

3) NRF/UNAM collaborative research programme: Fish and Fisheries Ecology of Lake Liambezi.

4) SASSCAL funding: Improved knowledge of aquatic ecosystems supporting fisheries, development of integrated strategies for sustainable fisheries and improved fisheries management.

The first two have been completed and produced definitive research results that fully endorse the management recommendations made by the project.

The NRF/UNAM collaboration continues and is producing a comprehensive picture of the productivity of Lake Liambezi.

The SASSCAL project begins in February 2013 and is being overseen by the new EU project.

A new research proposal has also been submitted to the GoGreen fund.

**Activity 5.2. Assess training needs in Zambian DoF and provide advice and assistance.**

The project has not been in a position to influence DoF training policy, given the lack of commitment from DoF HQ in Chilanga to the Joint Commission’s fisheries sub-committee. Recognising this, the forthcoming EU project will engage more with the other stakeholders in Zambia, providing both logistical and personnel support. KAZA will also play an increasingly important role. At least two potential students have been identified for enrolment for further degrees.

**Activity 5.3: Conduct field surveys.**

Extensive field surveys were conducted through the separately funded research projects, covered in more detail below.
**Activity 5.4:** Follow the proposed research/monitoring protocol as outlined in the management plan.

The project has achieved a great deal more than outlined in the management plan. Through the separately funded research projects outlined in Activity 5.1, the project has carried out intensive sampling programmes in the Zambezi River, Lake Liambezi, Kwando River and Kavango River. All listed activities in the management plan were addressed and in addition a comprehensive ecological survey of Lake Liambezi is underway.

Fishery dependent data are collected by eight fish monitors identified by the fishing communities and trained and supervised by the project. These monitors cover the four project pilot areas; Liskili and Sikunga, Impalila and Kasika Conservancies. Results of the first 2 years of data collection are very encouraging in terms of apparent accuracy and ability to show fishery trends.

The project also initiated a monitoring programme on the catches from Lake Liambezi. Joseph Lubanda, the MFMR Research Technician, joined this programme to collect data with assistance from a project-funded fish monitor.

The twice weekly data collection at Katima Mulilo market continued throughout the project and was supplemented by recording of wholesale quantities of fish from Lake Liambezi being exported to Zambia and the DRC by trucks operating from a yard behind the main retail market.

**Activity 5.5:** Facilitate external researchers/institutions in conducting research on the fish and fisheries relevant to the project and long-term goals.

The project initially identified three research projects and succeeded in sourcing funds for all three, as detailed under Activity 5.1. These projects are excellent collaborative programmes between NNF, MFMR, SAIAB and UNAM.

A further collaborative project with SASSCAL funding begins in February 2013, while another proposal has been submitted for GoGreen funding.

**Activity 5.6:** Data analysis and joint papers to be published.

The GoGreen and ICEMA projects were completed and comprehensive reports submitted to the funders. They are also being included in the project’s Field Document Series. The lead student, Zambian researcher Richard Peel gained his MSC with Distinction from UNAM. The MSc research programme for Mr Simasiku of MFMR is nearing completion.

The data collected in the market surveys and the catch monitoring programmes are currently being analysed to be written up as a project Technical Report. Scientific papers will also be submitted to international journals.

The research programmes have been well-publicised in international conferences in South Africa, Scotland and Norway.
**Output 6: Collaboration in next phase of NNF fish ranching project**

*Activity 6.1:* Provide assistance to on-going fish ranching activities implemented during the NNF Lead fish farming programme, in areas others than those implemented in pilot project areas under new Country Pilot Partnership (CPP) project.

With the ending of the separate project funding for the fish ranching programme, active support ceased, with the MFMR taking on responsibility to continue the programme. Approximately a year after support ended, the project commissioned a consultancy to determine whether ranching activities were continuing without project support. The consultancy report indicated that in most pilot sites the fish ranching was continuing and that the communities were keen to continue despite a lack of continued support (Field Document no 2.5).

In view of this finding, renewed support and expansion to other parts of the project area was included in the EU project proposal. In addition, KAZA has proposed a coordinated Zambia (under AWF supervision) and Namibia fish ranching programme in the area, and this will be incorporated into the EU project’s programme.

Red – limited progress (<1/3 of indicators achieved);
Amber – good progress (1/3 – 2/3 of indicator achieved);
Green – very good progress (>2/3 of indicator achieved).
Annexe 3. Project Document for new EU-funded project.
GRANT CONTRACT
- EXTERNAL ACTIONS OF THE EUROPEAN UNION -

Grant contract identification number: 2012/301055
(the "Contract")

The European Union, represented by the European Commission, (the "Contracting Authority")
of the one part,

and
Namibia Nature Foundation
Private law body
P.O. Box 425
Windhoek
Namibia
(the "Beneficiary")
of the other part,

(the "Parties")
have agreed as follows:

Special conditions

Article 1 - Purpose
1.1 The purpose of this Contract is the award of a grant by the Contracting Authority for the
implementation of the Action entitled: Community Conservation Fisheries in KAZA (the "Action")
described in Annex I.
1.2 The Beneficiary shall be awarded the grant on the terms and conditions set out in this Contract, which
consists of these special conditions (the "Special Conditions") and the annexes, which the Beneficiary
hereby declares it has noted and accepted.
1.3 The Beneficiary accepts the grant and undertakes to carry out the Action under its own responsibility.

Article 2 - Implementation period of the Action
2.1 This Contract shall enter into force on the date when the last of the two Parties signs.
2.2 Implementation of the Action shall begin on:
   - 1 January 2013
2.3 The Action's implementation period, as laid down in Annex I, is 48 months.
2.4 The execution period of this Contract shall end at the moment when final payment is paid by the
Contracting authority and in any case at the latest 18 months as from the end of the implementation
period as stipulated in art 2.3 above.

Article 3 - Financing the Action
3.1 The total eligible cost is estimated at 1,427,272.00 EURO, as set out in Annex III.

3.2 The Contracting Authority undertakes to finance a maximum of 1,130,668.00 EURO, equivalent to
79.22 % of the estimated total eligible cost of the Action specified in paragraph 1.

January 2012
Special Conditions Grant 2012/301055
The final amount of the Contracting Authority's contribution shall be established in accordance with Articles 14 and 17 of Annex II.

3.3 Pursuant to Article 14.4 of the Annex II, maximum 7% of the final amount of direct eligible costs of the Action established in accordance with Articles 14 and 17 of the Annex II, may be claimed by the beneficiary as indirect costs.

3.7 Pursuant to Article 14.2 of Annex II, the Regulation and/or the Financing Decision and/or Financing Agreement under which this Contract is financed do not exclude financing of taxes, including VAT, in the case the Beneficiary can show it cannot reclaim.

Article 4 - Narrative and financial reporting and payment arrangements

4.1 Narrative and financial reports shall be produced in support of payment requests, in compliance with Articles 2 and 15.1 of Annex II.

4.2 Payment shall be made in accordance with Article 15 of Annex II. Of the options referred to in Article 15.1, the following shall apply:

First instalment of pre-financing (80% of the part of the forecast budget for the first 12 months of implementation financed by the Contracting Authority): 262,789 EURO

Forecast further instalment(s) of pre-financing: 754,812 EURO

(subject to the provisions of Annex II)

Forecast final payment

(subject to the provisions of Annex II): 113,067 EURO.

4.3 The first instalment of pre-financing, if applicable, shall be paid to the Beneficiary within 45 days, as from the date of reception by the Contracting authority of signed Contract accompanied by the financial guarantee if required in accordance with Article 15.7 of the General Conditions. The signed contract serves as payment request.

Article 5 - Contact addresses

5.1 Any communication relating to this Contract must be in writing, state the number and title of the Action and be sent to the following addresses:

For the Contracting Authority

Payment requests and attached reports, including requests for changes to bank account arrangements should be sent to:

European Commission
Delegation of the European Union to the Republic of Namibia
P.O. Box 2443
Windhoek
Namibia
For the attention of Head of Delegation

For the Beneficiary

76 - 78 Frans Indongo Street,
PO Box 245
Windhoek, Namibia
Phone: + 264 61 248345
Fax: + 264 61 248344

January 2012
Special Conditions Grant 2012/301055
5.2 The audit firm which shall carry out the verification(s) referred to in Article 15.6 of Annex II is:
Swart Grant Angula
P.O.Box 30, Windhoek, Namibia
Phone: +264 61 276000
Fax: +264 61 232309

Article 6 - Annexes

6.1 The following documents are annexed to these Special Conditions and form an integral part of the Contract:
Annex I: Description of the Action
Annex II: General Conditions applicable to European Union-financed grant contracts for external Actions
Annex III: Budget for the Action (worksheets 1 and 3)
Annex IV: Contract-award procedures
Annex V: Standard request for payment and financial identification form
Annex VI: Model narrative and financial report
Annex VII: Model report of factual findings and terms of reference for an expenditure verification of an EU financed grant contract for external actions

6.2 In the event of conflict between the provisions of the present Special Conditions and any Annex thereto, the provisions of the Special Conditions shall take precedence. In the event of conflict between the provisions of Annex II and those of the other annexes, those of Annex II shall take precedence.

Done in English in three originals, two originals being for the European Commission and one original being for the Beneficiary.

For the Beneficiary
Name
Julian Fennessey
Title
Director
Signature
Date
17.12.2012

For the Contracting Authority
Name
Paweł Frankowski
Title
Head of Delegation
Signature
Date
17.12.2012
ANNEX I: DESCRIPTION OF THE ACTION

European Commission

Food Security Thematic Programme (FSTP)
Participation for Governance in Food Security
Budget line 21.02.01.00
### I. GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Reference of the Call for Proposals</th>
<th>EuropeAid/131792/C/ACT/Multi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot:</td>
<td>Lot 2</td>
</tr>
<tr>
<td>Name of the applicant:</td>
<td>Namibia Nature Foundation (NNF)</td>
</tr>
<tr>
<td>Title of the action:</td>
<td>Community-based management of river and floodplain fisheries in Namibia, Zambia, and Botswana, contributing to environmental conservation and to improve socio-economic benefits and food security, especially for women, children and the rural poor through capacity building and the development of regional and international networking platforms</td>
</tr>
<tr>
<td>Location of the action:</td>
<td>Rivers and floodplains in the Upper Zambezi, Chobe and Okavango catchments in Namibia, Zambia and Botswana</td>
</tr>
<tr>
<td>Country &quot;Focal point&quot;:</td>
<td>Namibia</td>
</tr>
<tr>
<td>Number of proposal¹:</td>
<td>DCI-Food/2012/107</td>
</tr>
</tbody>
</table>

¹Proposal number as allocated by the European Commission and notified to the applicant in the letter of invitation to submit a full application.

Annex I: Description of the Action Grant 2012/ 301055 2
II. THE ACTION

1. DESCRIPTION

1.1. Description of the action and its effectiveness

Background

Research programmes in Caprivi, Namibia, have consistently confirmed the decline in stocks of the larger more valuable fish species in both the Upper Zambezi and Okavango fisheries, and as a result declining yields and income for each fisherman (Abbott et al., 2003; Stephanus et al., 2002; van der Waal et al., 2009a; b; Hay & van der Waal, 2009). The current Namibia Nature Foundation (NNF) Project (undertaken in collaboration with the Ministry of Fisheries and Marine Resources (MFMR) and the World Wide Fund for Nature (WWF) Zambezi/Chobe Transboundary Fisheries Project in Caprivi, which recorded and documented baseline subsistence fisheries data on the Caprivi floodplains, ends in 2012. The project consulted widely with the communities, identifying widespread support for intervention by the communities to take ownership of, protect, and ensure effective and efficient control of their resources.

The decline of the fish resource is of major concern given the importance of the fish resource especially to the rural poor in the region (fish vendors are mostly women with many heading their households). Fish are also seen as a safety net by the communities when crops fail as a result of, for example, drought or excessive flooding. Rural riparian/floodplain communities are heavily dependent on fish for their daily livelihoods throughout the region. As these rivers are shared (transboundary) between countries, this highlights the importance of a regional community-based management approach. The proposed project aims to strengthen participation of riparian/floodplain communities, i.e. the key food security stakeholders, in management of the fisheries resources, through developing a bottom-up approach that empowers the communities socially, politically and economically, and thereby reduces the risk of fisheries collapse and further impoverishment of the rural communities.

This is in line with government policies in the region that promote co-management with the fishing communities, whereby they take part in the decision making process when developing management plans for the different inland fisheries in Namibia. The new Zambian Fisheries Act, for example, strongly emphasises the importance of involvement of communities in management. Additionally, it marries with the Kavango-Zambezi (KAZA) Transfrontier Conservation Area (TFCA) treaty signed in late 2011 (launched in 2012) to ‘establish a world-class transfrontier conservation area and tourism destination in the Okavango and Zambezi River Basin regions of Angola, Botswana, Namibia, Zambia and Zimbabwe within the context of sustainable development’.

Research in the Kavango River and Zambezi Rivers in Namibia proved that protected areas yield much higher catches and bigger fish compared to areas that are routinely harvested. All stakeholders, including the local fishing communities and the tourism industry/recreational fishery are working towards the same goal, an improvement in fish yield and size. During the NNF Project on the Zambezi and Chobe Rivers in Namibia, one of the outcomes of the consultative process in Namibia was clear support from all stakeholders in the area for the establishment of Fish Protection Areas (FPAs) within conservancies to promote local regeneration of fish stocks and the protection of habitats therein. With the establishment of FPAs, the fish stocks are given the opportunity to reproduce, grow and migrate longitudinally to areas outside the FPAs. No fishing will be allowed within these areas other than revenue-earning catch-and-release practiced by the recreational, primarily tourism, fishery. Two FPAs were established in the Caprivi, both within conservancies, and these are managed by the communities. The conservancy model in Namibia has been extremely successful in conservation of both fauna and flora with direct benefits for communities within the conservancies and for the country as a whole: currently, more than 18% of the country falls within community conservation land. It is a natural extension of the conservancies’ mandate to extend management responsibilities to the fisheries resources, and support is needed to empower the conservancies management committees to: (a)
network and engage in effective dialogue with local and national government as well as development partners; and (b) actively participate in decision-making process related to sustainable management of the fisheries resources and thus food security and nutrition.

These FPAs have the following benefits for the communities;
1. Recreational fishermen are willing to pay to fish (catch-and-release) in areas that are protected and in turn where the chances they will hook a trophy fish are higher;
2. Better catches for the recreational fishermen will boost the local industry and thus provide more employment opportunities for the local communities;
3. Better fish recruitment will have a spill-over effect into adjacent open access water bodies resulting in better catches by local fishermen and a better quality product for the vendors to market;
4. The riverine habitats are protected and conserved adding to the aesthetic value of the region, again promoting the tourism industry and local economy; and
5. Protected areas will improve the aquatic ecosystem which in itself will increase the resilience towards future impacts that may occur due to climate change.

FPAs managed by the local communities give a sense of ownership and the entire management approach will uplift individuals (develop leadership qualities) that will filter through to the rest of the community. The fish resource is especially important to women and children and any improvement in the fish stocks will benefit these vulnerable groups and further contribute to food security and subsequently local communities’ health and nutrition.

Some fishing methods such as bashing (hitting the water and vegetation) and drag netting are widely practised despite being illegal, and these negatively impact on the aquatic environment (vegetation, substrate and water quality). These fishing methods are difficult to control in the vast area of the floodplains but can be controlled in smaller areas managed by communities, particularly by establishing a network of FPAs, leading to overall improvement in the aquatic ecosystem. The two currently protected areas will form a basis for the development of further protected areas that will be established nationally and regionally within the Zambezi and Okavango River Basins.

Lesson learned during the current NNF Project from the process to establish FPAs and to empower the communities to take charge of their own resources will be used to further this concept in the region. Members from the conservancies managing the two pilot FPAs will greatly assist in explaining the concept to other communities where FPAs are a feasible management option, and assist in educating communities that are not familiar with this process. Although different traditional systems in the region may be a challenge, the contribution of community members with experience of FPAs will help to resolve problems. Exchange visits between communities, especially community visits to the two FPAs in Caprivi will help in establishing FPAs in other regions. The advantage of these visits is that communities will be able to witness the environmental, economic, political and social benefits of establishing FPAs in their areas. Establishment of transboundary FPAs will further enhance collaboration between neighbouring communities sharing a common interest.

In addition to setting up FPAs, communities also have the potential to manage fisheries through restrictions on effort, fishing methods used, etc. On Lake Liumbezi, an ephemeral lake on the Caprivi floodplain in Namibia, the fishing community established a management committee and, with the support of MFMR and the NNF project, introduced its own regulations to control the fishery. It limited access, permitted fishing methods and mesh sizes, in order to ensure a profitable fishery based on the larger, more valuable fish species. This has resulted in a highly profitable and currently sustainable tilapia fishery producing over 1700 tonnes in 2011. Lake Liumbezi is an outstanding example of the ability of fishing communities not only to manage their own resources but also to make the correct decisions on regulations, as confirmed by scientific evidence collected in research programmes initiated through the NNF Project.

At present communication across international borders between communities, private sector and governmental institutions is weak, although progress has been made through initiatives of the current NNF Project and also the USAID support Southern Africa Regional Environment Programme.
(SAREP). The setting up of steering committees with clear terms of reference will provide the necessary platforms to enable effective and efficient communication lines between stakeholders, regionally and internationally. Clear communication channels are essential for any cross border collaboration, and it is essential that these are established early in the proposed project. These committees will also facilitate communication between communities, stakeholders and governmental institutions.

Capacity building is an essential component of support for the communities, in addition to which local and national government authorities need strengthening to play their part in the development process. Capacity building will use a collaborative approach with partner institutions such as the University of Namibia (UNAM), MFMR, Department of Fisheries in Zambia and Botswana, Okavango Research Institute (ORI) in Maun, Botswana, the South African Institute for Aquatic Biodiversity (SAIAB) in Grahamstown, South Africa, and other presently running/proposed projects with WWF, National Research Foundation (NRF) in south Africa, Southern African Science Service Centre for Climate Change and Adaptive Land Use (SASSCAL) and SAREP. Community members are already partnering with research projects and this will be further expanded to ensure sustainability of proposed activities. Linkages will be established between stakeholders and authorities to ensure an efficient two-way flow of information to prevent any misunderstanding and breakdown in communication.

During the NNF Project, local community members (including women) have been trained to record fisheries dependent data from their areas, many of which are from the two pilot FPAs. Basic information recorded from the local fishermen is then channeled through to the local MFMR office where data capturing takes place. Further data are recorded from the local fish market and also from Lake Liambezi, a major fishery in Caprivi. This all contributes to a well-developed fisheries database for the region. In Namibia, community members have been involved in research projects in data collection, awareness campaigns, establishing fisheries committees and the development of the terms of reference for these committees, all with the support of NNF Project staff. This process further enhances the sense of ownership of the resource, but needs to be further developed and expanded to other communities beyond the Caprivi floodplains and also across international borders. Data collection, through local communities, then becomes cost-effective across a large area, further contributing towards co-management of the fish stocks.

A subsidiary small-scale project to the NNF Project on the Zambezi and Chobe Rivers was a pilot project for fish ranching in isolated water bodies such as pans and road construction gravel pits, using an approach whereby communities take responsibility for managing fish stocks introduced into water bodies under their control. Fingerlings were stocked when the pans filled with water during the rains, and then harvested after several months of growth. While the project ended with the cessation of project funding, a recent follow-up survey (Murphy, 2011) has shown that most of the stocked water bodies continue to be successfully managed by the communities despite the lack of support to supply new fingerlings post-project, and proceeds from the sales of fish are distributed in the communities involved. The pilot project therefore achieved its goals and with further project support can be extended more widely in the Caprivi Region and beyond.

Both the Upper Zambezi and the Okavango River Basins are shared by several countries, each with its own objectives and utilisation strategies. The goal is that these systems should be managed as a single river basin and not compartmentalised with uncoordinated research conducted along these river systems. Both these rivers form international boundaries in some stretches, with different legislation (although with similar aims) in neighbouring countries. It is therefore important that legislation and research be harmonised where possible to facilitate co-management.

The importance of fish within the Okavango and Upper Zambezi River Basins has been underestimated in the past but contributes massively towards economic and social well-being of communities within these regions as it is the major animal protein source for the communities. Declines in fish catches will have serious consequences for the respective local governments and will put further pressure on already limited resources. The proposed project will contribute to well-managed fisheries through co-management initiatives, ensuring the availability of resources for future generations, especially the poor riparian/floodplain communities.
Overall objective

Establishment of a community-based, sustainable management systems for riverine/floodplain fisheries, thereby improving food security in the area particularly for women, children and the rural poor.

Specific objectives

- Effective communication channels (network platforms) established between all stakeholders, local, national and particularly international.
- Capacity building in fisheries management, particularly at local community level but also at local government level and at national level in the fisheries ministries.
- Target groups to benefit from well managed fisheries.
- A network of Fish Protection Areas established, effectively functioning, well managed by the communities and producing tangible benefits in the form of improved yields and income for the communities from the tourism sector.
- Improved aquatic habitat and fishery resulting from elimination of environmentally damaging fishing methods.
- Promoting fish ranching in existing natural (e.g. rain water pans) and artificial (e.g. road construction gravel pits) water bodies throughout the region to improve food security, particularly in areas remote from the fisheries areas.

Proposed main activities

1. Using lessons learned from current NNF Project in Caprivi, Namibia, to develop similar community based management systems for other fisheries areas in the Zambezi, Chobe and Okavango River Systems

Subsistence fishery on the Zambezi, Chobe and Okavango Rivers is very important for a large section of the human population within the proposed study area and extends across three countries: Botswana, Namibia and Zambia. The NNF Project initiated collaboration and communication between these countries, forming a solid foundation from which to work. Further project support is now needed to strengthen and extend these initiatives.

Experience on the Zambezi and Chobe River Systems in Namibia has shown that it is difficult for a government driven law enforcement approach to succeed because of the complex nature of the floodplain river systems as well as resource limitations (financial, manpower and equipment). The complex system of channels, backwaters, floodplains and lakes make it impossible to cover all these areas effectively during patrols. The only effective way to monitor fishing activities is by using a community-based approach. The example of successful community management of the Lake Liambezi fishery on the Caprivi floodplain clearly demonstrates the way forward in developing community-based systems elsewhere.

The concept of FPAs was advocated in Caprivi as a way to initiate a community-based management approach and through regional meetings being proposed as a proven initiative to help drive similar processes transboundary.

The following process to establish FPAs in Caprivi was followed:

- Scientific database developed to determine the state of the fish stocks;
- Consultative community meetings, including the Traditional Authority and conservancies, held to explain and develop the FPA concept and to obtain input from fishermen and riparian/floodplain communities;
- Consultative meetings held with other stakeholders such as the tourism industry, government institutions (MFMR and Regional Council), recreational angling clubs and NGOs in the region;
• FPAs and their boundaries identified and demarcated by the communities and management plans developed through an extensive consultative process (workshops, meetings, field visits, etc.) with all stakeholders; and
• Approval sought by the conservancies from the Traditional Authority and the Regional Council, and a letter submitted to the MFMR, Namibia, requesting the gazetting of these FPAs.

A similar process will be followed to promote the concept of FPAs and community-based management measures to other areas in the region and where applicable, internationally. Community meetings will be held to discuss the value of FPAs. Community members from the conservancies where the pilot FPAs have been established in Namibia will form part of these discussions. These discussions will be country specific and in areas indicated by the local communities. Potential sites occur along the Okavango River in Namibia, the section forming the border between Angola and Namibia, and specific areas in the Okavango Delta in Botswana. On the Upper Zambezi, sites will be identified on the Barotse floodplains in Zambia, and along the border between Namibia and Zambia. Sites on the Chobe River will be mainly on the Namibian side as the Chobe National Park, where no fishing is allowed, borders the Chobe River on the Botswana side. A further part of the Zambezi system that has the potential to be included is the Kafue floodplains in Zambia, where fishers experience similar problems to the other floodplain systems covered under the project, and where the Department of Fisheries is currently exploring ways to implement a newly developed management plan. The whole area is key to the KAZA TFCA.

2. Establish cross border steering committees at different levels (communities, conservancies, local authorities, government departments/ministries, etc.) to enhance communication links and facilitate information exchange to improve fisheries management.

One of the biggest challenges when working with communities in relatively remote rural areas is to improve communication between communities and other stakeholders. Steering committees will be established through the project at different levels, locally, regionally and internationally, and will be linked to river systems or specific fishery areas. Committees will be established through a consultative process involving facilitative meetings and workshops. Input from the different countries is essential as each department will be working in their own particular country.

Steering committees will have the following functions:
• Primary link between fishing communities, Traditional Authorities, government departments, and other stakeholders.
• Address concerns of fishermen, assist fishermen to reach agreement on issues faced in the fishery, and communicate the needs and decisions of the fishing communities to government departments.
• Disseminate information provided by government departments and Traditional Authorities back to fishing communities.
• Liaise with government departments over management of the resources under each country’s fisheries legislation.
• Formulate new by-laws through a participatory approach with the fishermen in their area, communities will seek, and be guided by, advice from governmental institutions and from the project to ensure that the proposed by-laws are supported by the latest scientific knowledge.
• With the assistance of governmental institutions and the project, be responsible for informing all fishermen in their areas of the regulations and any new by-laws.
• Call in the enforcement section of their government, Police or Nature Conservation to assist in dealing with recalcitrant fishermen.
• Liaise with all relevant stakeholders over any potential future changes to the regulations or by-laws.

3. Exchange visits carried out with neighbouring communities (regional and international) to discuss best practices and lessons learned, and to develop comprehensive management plans and formal agreements.

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The two pilot FPAs in the Caprivi will be used as models for protected areas for the rest of the study area. Visits from communities (regionally and internationally, also from different river systems) to these areas will facilitate the development of this concept. Exchange visits will also enhance communication and dialogue necessary for effective collaboration between communities. Visiting communities to the FPAs will witness the values and benefits of establishing such protected areas.

Regional visits from the countries’ fisheries departments, especially at management level, will be necessary to demonstrate the community-based management approach and the infrastructure needed for successfully implementing FPAs.

Management plans for each FPA will be developed with input from the project and also from the different stakeholders, i.e. local communities, local fishermen, conservancies, Traditional Authorities, NGOs, and the tourism industry where applicable.

4. Community capacity building in monitoring and evaluation of FPAs.

It is critical that the management process be monitored and evaluated, especially by the communities themselves to ensure the sustainability of the process. Data on fishers’ catches adjacent to these FPAs will be collected to determine the impact FPAs have on neighbouring areas and whether communities are actually benefitting from these protected areas.

Through the NNF Project, local community members were identified at four sites in the Caprivi by the communities and trained by project staff in data collection for the Zambezi and Chobe floodplain fisheries. These data are used to evaluate the state of the fish stock on the Eastern Caprivi floodplains and to further document the harvesting patterns of the subsistence fishery. This information is important as fishermen adapt their harvesting methods according to the availability of preferred fish species, the state of the fish stock and according to market demands.

The use of local fishermen in data collection is a more efficient and cost-effective way to record data, compared to government staff going out periodically to the floodplains to record catches from the fishermen. It is important that high quality data are collected. To ensure that this is not compromised, quality checks initiated under the NNF Project will be continued and extended.

The fishery dependent data collected by the local community members will be supplemented by fishery independent data collected in separate research projects to give a holistic picture of the fish resource as fishers’ catches are usually biased towards the more economically valuable fish species.

Capacity building will also involve fishery scientists from the different fisheries departments from the three different countries. An initial training programme, supported by a partnership between the NNF Project and SAREP, was conducted in April 2012 for fisheries scientists from Angola, Botswana and Namibia in fish identification, monitoring and data analysis. This training project was to develop common methodologies for data collection and analysis in the region. Further, in-depth workshops for data analysis, interpretation, and management systems, will be necessary during the proposed project.

Capacity building for fisheries scientists in monitoring programmes, fisheries management and basic fisheries research will thus be an important aspect of the proposed project to ensure sustainability. UNAM, SAIAB and ORI will play major roles in this process. The University of Hull’s International Fisheries Institute (HIFI) also has considerable experience in the region, particularly on the Kafue floodplains, and is listed as an associate institute in this project.

Capacity building is also essential for the local communities in monitoring and management, including social and economic aspects.

6. Support for expansion of Namibian fish ranching programme into suitable water bodies in neighbouring countries.
In Namibia, the Caprivi Region in general is very flat, hence the extensive floodplains. Thus, in addition to the rivers and directly connected floodplains, Caprivi has numerous pans, temporary drainage channels and fossil river channels. Many of these hold water throughout the year, while others fill during the rains and then dry out in the dry season. As they are not directly connected to the main river channels they hold few, if any, fish naturally. They do, however, provide ideal fish habitat and are often highly productive as a result of nutrient inputs from cattle and wild game. Furthermore, many such water bodies are under the control of specific rural communities, many of which are distant from rivers that could provide fish and thus food security. A small-scale pilot project to stock such water bodies with fish fingerlings, to be looked after and subsequently harvested by the managing community, was shown to be successful in many cases and communities report valuable benefits in terms of both food security and proceeds from sales of fish. Project funding has now ended but the programme has not, as yet, been taken over and expanded by the MFMR in Namibia, thus project funding is needed for further support and to expand the programme beyond the pilot sites. Similar conditions suitable for fish ranching occur in large areas of the neighbouring countries also, and therefore there is considerable scope for further expansion of this programme regionally.

The proposed project will provide technical support for the expansion of this ranching programme and its extension to suitable water bodies in the neighbouring countries. Unlike fish farming with its high level of inputs in terms of both labour and infrastructure necessary for commercial success, fish ranching is a simple system of rearing and harvesting fish from natural small water bodies under the control of specific communities who manage the resource for the benefit of the community as a whole. The technology is simple and low cost, the main inputs being technical guidance and the initial supply of fingerlings.

6. **Coordination of research programmes on the fish, fisheries, and dependent communities.**

Effective fisheries management, whether through government or community control, depends on sound scientific, social and economic advice. The NNF Project played an important role in Namibia in identifying research needs, developing projects and sourcing funding. These projects are now bearing fruit in the form of clear management recommendations. The programme now needs to be expanded through the area covered by the project. This necessitates a harmonised approach to research, with objectives coordinated to ensure an effective and efficient co-management strategy.

The fisheries departments will be advised by a fisheries scientist with a comprehensive understanding of African floodplain fisheries dynamics. This is essential because of the complex nature of such fisheries and the current under-capacity of government departments in this field. The research adviser will support existing and planned research programmes, and identify future needs in the region through current partners including NNF, UNAM, ORI, SAIA and Rhodes University in South Africa. Networking with other research institutes active in the area (e.g. University of Hannover in Germany and HIFI in UK) will also be an important role played by the research adviser. Angola will only be involved as an observer and will take part in fisheries training workshops to ensure capacity building for especially fisheries scientists.

**1.2. Methodology**

**1. Methods of implementation and reasons for the proposed methodology;**

**Planning workshop**

An initial activity planning workshop will be held in Caprivi attended by fisheries departments from the different countries, UNAM, SAIA and ORI. The agenda will cover (a) the role of the Steering Committees, (b) cross-border visits, (c) capacity building, (d) fish ranching, (e) potential sites for new FPAs in the different countries, and (f) initial plan of action.

Follow up workshops will evaluate progress, and ensure effective communication and collaboration between all parties. Venues for the follow up workshops will be rotated between the different countries. Workshops will include representatives of all stakeholder groups in each country.

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The different fisheries departments will be responsible for assisting the fishing communities in sensitising all stakeholders in the active project areas. The sensitisation process is essential to ensure that the communities take ownership of the management process and project activities. NNF, UNAM, SAIAB and ORI will facilitate the process where necessary.

Steering committees

Steering Committees will be established in active project areas, i.e. areas where either FPAs have been identified or where management regimes are established for the fisheries (such as the Lake Liambezi fishery described in the background information above). These must be areas where all stakeholders are in agreement. Draft terms of reference will be used to guide these committees. The composition of steering committees will be agreed upon by all stakeholders. The composition may differ between regions, depending on the diversity of stakeholders present in that particular region and the ultimate goal for that particular FPA or fishery management area. Steering committees will be responsible for development of management plans for FPAs/management areas, and also for defining the rules and regulations, e.g. boundaries and management plans for FPAs. Lines of communication between steering committee, stakeholders, the project and fisheries departments, and reporting protocols must also be established.

Capacity building

Capacity building will include monitoring, fish identification, evaluation and management for the communities and departmental staff, with the latter also receiving training in standardise research methodology. Training will be conducted in the different FPAs and a monitoring protocol will be developed to evaluate the impact FPAs may have on the fish resource. Data entering and data storage received from the communities must be standardised where possible and quality checks performed. Analysis will be done as part of the capacity building exercise.

In Caprivi, most of the floodplains fall under conservancies, several established and others in the process of development. These conservancies have responsibility for management of natural resources in their areas, and the management of fish stocks and fishing is a natural extension of these responsibilities. The conservancies have been supported in establishing management committees and structures through the NNF Project and also through the NGO Integrated Rural Development and Nature Conservation (IRDNC). The capacity building which has been successfully developed in the established conservancies serves as a model in establishing community management structures in other parts of the area covered by the project.

The differences in social structures, traditional authority systems, etc. throughout the fisheries areas necessitate social and economic studies. It is essential to document the current systems of management and their effectiveness, and then to monitor the development of fisheries management systems set up as a result of project interventions. Such studies will determine whether these communities receive any benefits from established FPAs and other fisheries management structures established by the communities.

Fish ranching programme

Fish ranching in other regions will depend on the suitability of the area and presence of suitable temporary pools. The process will be explained to communities and discussions held to determine the level of interest. No exotic species or fish with any sign of any disease will be distributed in any area. Fingerlings for the programme will be supplied by government and private aquaculture facilities. The Namibian MFMRI is planning a dedicated hatchery for aquaculture development in Caprivi, while the African Wildlife Foundation (AWF) has built a hatchery facility to be managed through the Inyambo Community Trust at Mwandi in Zambia.

2. Procedures for follow up, monitoring and internal/external evaluation;

An internal mid-term review will be conducted after two years consisting of staff from the different partners and associates. A final review will be done by an external consultant at the end of the project. This method of monitoring has been invaluable to previous inland fisheries (and other) projects which NNF has been engaged in and aids to guide the project forward, keep it on track, and assist with long-

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term sustainability. Additionally, ongoing monitoring is built into the workplan through workshop proceedings, reports and papers submitted to peer review journals, as well as more popular articles to help create awareness and visibility of the successes and achievements of the project.

3. the role and participation in the action of the various actors and stakeholders (local partner(s), target groups, local authorities, etc.), and the reasons for which these roles have been assigned to them;

**Partners**

**Namibia Nature Foundation**: project management, appointment of project staff, supervision of project

**Government Fisheries Department (Zambia)**: assistance to fishing communities, implementation of management plans, coordination with other relevant authorities (Traditional Authorities, Regional Councils, other government departments (e.g. tourism, wildlife management))

**Okavango Research Institute**: implementation of agreed community management programmes, further developing programme already in progress to develop zonation of fishing activities in the Okavango Delta in Botswana.

**University of Namibia**: implementation of research programmes, registration of postgraduate students, training workshops for data collection, analysis and monitoring.

**Associates**

**Kavango-Zambezi Transfrontier Conservation Area (KAZA)**: Coordinates transfrontier natural resource management in all countries involved in the proposed project, which will therefore coordinate activities wherever and whenever possible.

**University of Hull International Fisheries Institute (Professor I.G. Cowx)**: Potential involvement in training programmes in Zambia as a result of close involvement in development of a management plan for the Kafue Floodplain fisheries, a potential focus area for extension of the project’s network.

**South African Institute for Aquatic Biodiversity**: Supervision of research programmes, continuing the close links established under the NNF Project.

**Government Fisheries Department (Botswana and Namibia)**: assistance to fishing communities, implementation of management plans, coordination with other relevant authorities (Traditional Authorities, Regional Councils, other government departments (e.g. tourism, wildlife management))

**Government Fisheries Department Angola**: Capacity building for researchers through training workshops.

**African Wildlife Foundation**: assistance to the Zambian Fisheries Department and to fishing communities and coordination with other relevant authorities.

**World Wildlife Fund**: Supportive role to the project (lessons learned through previous fisheries projects in the region and through their experience gain through establishment of conservancies in Namibia). Facilitating communication and linkages with stakeholders regionally and internationally.

**Target groups**

All conservancies in Namibia in the project area: Setting up of fisheries committees and establishing management programmes, establishment of FPAs, developing bye-laws guided by the project and in partnership with MFMR.

Other fishing communities in Namibia in areas not covered by conservancies: Develop partnerships through the establishment of fisheries committees under guidance by project in close cooperation with MFMR, Traditional Authorities and Regional Councils.

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*Annex I: Description of the Action Grant 2012/301055*
Community trusts in Zambia: Setting up of fisheries committees and establishing management programmes, establishment of FPAs, developing bye-laws guided by the project and in partnership with the Barotse Royal Establishment and the Department of Fisheries.

Other fishing communities in Zambia in areas not covered by community trusts: Develop partnerships through the establishment of fisheries committees under guidance by project in close cooperation with DoF, Barotse Royal Establishment and other relevant local and traditional authorities.

Fishing communities in Botswana: Develop partnerships through the establishment of fisheries committees under guidance by project in close cooperation with fisheries departments and other relevant research institutes, as well as local and traditional authorities.

4. the organisational structure and team proposed for implementation of the action (by function):

Project manager (Research adviser): Based in Katima Mulilo in Namibia, responsible for the overall supervision and implementation of the project. (NNF)

Project/research coordinator: Responsible for the implementation of the research programme and postgraduate students. (UNAM)

Researchers from Namibia, Botswana & Zambia. Coordinating project activities in their respective countries.

Researchers from Angola: Increase capacity within the Fisheries Department in Angola.

Two Development Officers in Namibia. Facilitating links with and training in community-based management between the different communities in the different countries. (NNF)

Fish monitors/guards: monitors/guards from local communities from each country, collecting fisheries data (fish catches and also market data where possible) and to patrol FPAs.

Sociologist: Part-time, coordinating studies on the impact of the community-based management system developed.

Zambian field coordinator: Implementation and facilitation of project activities in Zambian.

Researcher at ORI: Implementation and facilitation of project activities in Botswana.

5. the main means proposed for the implementation of the action (equipment, materials and supplies to be acquired or rented);

The following list of equipment, materials and supplies are critical for the effective running of the Project. Specifically:

- Rental of dedicated project office in Katima Mulilo, Namibia and associated running costs (communications, supplies, etc)
- Acquisition of IT package to facilitate administrative work and reporting, and data capture, analysis and storage.
- Acquisition of small boat package for use by fish monitors/guards for data collection, patrols of FPAs and regular monitoring.
- Acquisition and rental of vehicles for use by project staff across the study areas including local and regional transport for activities such as monitoring, exchange visits, stakeholder engagement and meetings.
- Acquisition of equipment package to facilitate ongoing field work by field implementing and includes items such as scales and GPS (batteries) for data recording, camping equipment for in the field, etc.

6. the planned activities in order to ensure the visibility of the action and the EU funding.

The visibility plan is included in all aspects of the project. During the first year a brochure and poster will be printed to explain the importance of community-based management programmes and also the value of FPAs for the floodplain fisheries as well as stating the EU support for this project. This will
also be printed during the later phase of the project and will be seen as part of the evaluation and monitoring process. Additionally, a dedicated website linked to the NNF site will be established to improve visibility of the Project, its outputs and efforts of the community in their FPAs.

Importantly, based on previous experience, the local radio service in the regions/countries will be used to disseminate information regarding the project and EU support to the broader public and also to get the information through to the fishing communities along the rivers.

Workshop proceedings, reports published and papers submitted to international peer review journals will highlight EU support and partnership with local fishing communities.

Fishing competitions in the regions are very popular attracting anglers from all over southern Africa. Presentations and information brochures will be presented at these fishing competitions.

All in all the visibility efforts will aid in raising awareness and publicise the partnership between the EU and NNF (and partners) to empower local communities and governments in managing their own fish resources for especially the rural poor in the region.
1.3. **Duration and indicative action plan for implementing the action**

The duration of the action will be 48 months.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Year 1</th>
<th>Implementing body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting up communication links with all partners</td>
<td>Month 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Visibility action plan developed – brochure, pamphlet and website</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Preparation for workshop with all partners</td>
<td></td>
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<tr>
<td>Workshop held with all partners</td>
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<td></td>
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<tr>
<td>Monitoring by Caprivi communities in FPAs continue</td>
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</tr>
<tr>
<td>Capacity building/standardise research methodology with research scientists fish. dept.</td>
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<tr>
<td>Fish. Dept. sensitise respective communities</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steering Committees established</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Areas identified for possible fish ranching activities</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Activity</td>
<td>Semester 3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>----------</td>
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<tr>
<td>Annual workshop to discuss progress</td>
<td></td>
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<tr>
<td>Establish FPAs</td>
<td></td>
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<tr>
<td>Capacity building/standardise research methodology with research scientists fish. dept.</td>
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<tr>
<td>Training of communities in monitoring &amp; evaluation</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exchange visits</td>
<td></td>
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<tr>
<td>Implement fish ranching</td>
<td></td>
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<tr>
<td>Steering Committee reports</td>
<td></td>
<td></td>
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<tr>
<td>Progress evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posters printed as part of visibility action plan (Results)</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
1.4. Sustainability

Expected major impact of the project
The project will expand the current NNF project on the Caprivi floodplains in Namibia to other fisheries areas in the region with similar characteristics. The current project assists the Namibian Government in following its recognised overall community empowerment policy; by devolving fisheries management to partnerships between fishing communities, traditional authorities, and the MFMR. The expected impact of the proposed project is to devolve fisheries management responsibilities in the respective countries from the current, relatively ineffective governmental top-down approach to stakeholder partnerships based on those established during the NNF Project.

Improved legislation as a result of the project
The establishment of FPAs in the Caprivi Region of Namibia led to a review of community by-laws in relation to existing regulations of the current Inland Fisheries Resources Act in Namibia. The Act has the necessary flexibility to allow for the establishment of FPAs (Section 22(1)) with provision for rules therein approved by traditional authorities and ratified by the Minister (Section 22(2)). To remove ambiguity, modifications to the regulations have been recommended. Lessons learned in Namibia will facilitate the process in neighbouring countries, where fisheries legislation also provides for involvement of communities in decision-making processes.

Dissemination plan, possibilities for replication, and multiplier effects
- Following the initiation of community-based management of the fish resources in pilot programmes in targeted Caprivi communities, other communities in Caprivi requested support for FPAs in their regions – resulting in a multiplier effect in the region as communities recognise the potential benefits. The current NNF Project in Caprivi assists communities in disseminating information about FPAs and their goals to neighbouring communities, including those in Zambia.
- The Zambian Department of Fisheries, assisted by the AWF and the WWF, has also taken its first steps towards establishing protected areas in agreement with local communities.
- The Botswana Government is currently discussing zonation plans for commercial and tourism recreational fisheries with communities. The proposed project will help in this using lessons learned from Caprivi.
- The successful community management programme for the Lake Liambezi tilapia fishery provides an excellent example for replication in other suitable fisheries in the project area.
- The KAZA TFCA is now fully established and in a position to be a focus for transboundary natural resource management initiatives.
- The mechanisms are therefore in place to allow for effective dissemination of information on community empowerment and mechanisms for effective management of the fisheries through a variety of channels, i.e. government departments, traditional authorities, transboundary conservation initiatives and NGOs active within the region.

Potential risks
- Full support and involvement from government departments in the different countries can be problematic and plagued with bureaucracy that slows project progress. **Mitigation measures:** (a) Initial workshop for all stakeholders to clarify responsibilities for actions and to obtain full agreement at government level for the active participation of all project stakeholders; (b) Develop agreed framework and timetable for reporting to respective government departments.
- Unwillingness to devolve power to the Fisheries/Conservancy Management Committees by Departments of Fisheries. **Mitigation measures:** Through the above framework for participation of communities, the project will facilitate devolution and assist communities to provide all information necessary to validate these changes, and thereby facilitate implementation of the process, in line with clearly stated and already established government policies for devolution of natural resource management to communities.
- Potential for initial loss of income by fishermen who give up some fishing grounds when they become FPAs. **Mitigation measures:** This is largely a matter of perception rather than fact. Initial experiences from the two pilot FPAs indicate that the fishermen are still able to fish in adjacent
areas. In addition, where there is potential for angling tourism development, displaced fishermen can be profitably employed in protection of such areas, as is currently the case in the pilot Sikunga Channel FPA. Exchange visits by members of communities with FPAs will also be facilitated in the project to allay any fears that some fishermen may be disadvantaged.

- Where protected areas straddle international borders such as between Angola and Namibia on the Okavango River and between Namibia and Zambia on the Zambezi River, challenges in establishment and management may be anticipated. **Mitigation measures:** The project will play a facilitating role in ensuring that immediate and future goals and activities are agreed upon. Clear demarcation of FPA boundaries and effective and efficient communication is essential to ensure full cooperation between affected communities.

- Weaknesses in communication lines between stakeholders may hinder efficient community-based management. **Mitigation measures:** An initial workshop involving all stakeholders must develop detailed communication protocols and reporting systems to be followed, and adapted as necessary, throughout the project. It is essential that all role players are fully aware of the project goals and protocols from the start.

- Impact of suitability of sites and availability of fish fingerlings on fish ranching activities. **Mitigation measures:** Suitability and availability of sites for ranching is determined by the natural topography and availability of suitable water-filled pans/ponds, and is beyond the scope of the project to influence. There are, nevertheless, numerous suitable water bodies in the project area. Availability of fish fingerlings for stocking depends on the capacity of the governments’ fisheries department aquaculture facilities to supply fish to suitable areas. Namibia and Zambia both have initiated programmes to produce fingerlings for stocking.

- Availability of qualified fisheries scientists in the different countries is a limiting factor for long-term support for the management programme. **Mitigation measures:** Recognising the need for strengthening of capacity, the current NNF Project identified research needs and assisted in establishing and successfully funding three research projects in the Caprivii area in the last two years. These provided training towards postgraduate degrees for staff of the MFMR. Further project proposals are in the planning process. The proposed project will provide continued support to respective governments to identify human resource needs for both management and scientists and arrange relevant training programmes and continued support.

**Assumptions and preconditions**

In order to achieve the objectives of the project, the following assumptions and preconditions are made:

- The Fisheries Departments (Botswana, Namibia and Zambia) are committed and make available the necessary resources (staff, matching funds, and equipment) for the Project.
- Staff from the respective Fisheries Departments are fully involved with the activities of the project.
- Qualified and experienced fisheries scientists can be recruited to run the Project, thereby providing dedicated inputs towards implementing, planning and reporting for the Project.
- The Regional/Local Government, Traditional Authorities from the different countries and other interested parties co-operate in the studies and discussions at regional level.
- Fishing communities involved in the project (Botswana, Namibia and Zambia) recruit suitable local staff to ensure involvement of stakeholders for the Project.
- Local communities continue willingness to test and evaluate proposed management systems.
- Governments remain willing to devolve fishery management responsibilities and benefits to local community institutions.

**SUSTAINABILITY**

**Financial sustainability**

The long-term goal of this project is for communities to manage their own fish resources to ensure sustainable exploitation for their own benefit. Financial sustainability will depend on income generated. In many areas this will come from management of protected areas with angling tourism playing a major role. In others, alternative sources of support for the management committees will be explored during the project, e.g. fishing levies. Devolution of management will insulate communities...
from vagaries of government support as well as the need for long-term NGO inputs. Nevertheless, governments will continue to play a role in supporting the communities’ management programmes and will thus need continued, improved funding for relevant ministries/departments.

**Institutional sustainability**

Effective networking depends on well-established organisations that not only implement project activities but also give direction to those activities and ensure long-term sustainability of the project initiatives. This project will be dealing with such well-established organisations. Each country has a fisheries department/ministry with a mandate to manage inland fisheries in partnership with local authorities. They are supported by NGOs with long-term presence in the region, including NNF and WWF in Namibia and WWF and AWF in Zambia. ORI is a major role player in Botswana. The newly established KAZA TFCA has the potential to be a unifying long-term partner because of its natural resources mandate and presence in all countries.

In Namibia, most fishing areas are located within conservancies, some well-established and others being gazetted (emerging). Established conservancies have fisheries committees that work closely with the NNF Project, MFMR, tourist lodges in their areas, and counterpart organisations in Zambia. They form a natural focus for community-based management. Zambia has a strong Royal Establishment as its Traditional Authority and this potentially forms a strong partnership with the Department of Fisheries. Newly-created community trusts in Zambia are supported by NGOs and are beginning to form partnerships for implementation of fisheries management measures. Botswana has established strong relationships between ORI and community organisations with the aim of preparing for zonation of fishing areas. Angola is in the early stages of recovery from a long period of instability. Participation in the proposed project will be mainly through capacity building and will attend workshops and training workshops. This will be a major step forward in assisting the country’s inland fisheries organisation to develop management systems for its fisheries in the Okavango River.

**Policy level sustainability**

The countries involved in this project all have fisheries policies aimed at empowering fishing communities to manage/co-manage their own resources. The current NNF Project in Caprivi has proposed improvements to current Namibian legislation in order to facilitate this process further. Existing legislation in the participating countries is already in harmony with regards to overall goals of fisheries management. The countries regularly communicate through transboundary meetings of staff at various levels, some facilitated by the NNF Project. Fishing communities now meet with their cross-border counterparts where fish resources are shared between countries. As the proposed project’s aim is to facilitate this process through improved networking and application of “lessons learned” in the current Caprivi project, policy level sustainability is not expected to be an issue in the proposed project.

**Environmental sustainability**

The project will have positive benefits on the environment. The establishment of Fish FPAs will not only protect fish stocks, particularly the larger species that are most vulnerable to fishing pressure, but will also protect against the damaging effects of illegal dragnets on the aquatic and benthic flora and fauna.

1.5. **Logical framework**

See below

1.6. **Literature cited in the text**


Annex I: Description of the Action Grant 2012/301055


2. BUDGET OF THE ACTION, AMOUNT REQUESTED FROM THE EU AND OTHER EXPECTED SOURCES OF FUNDING

See below
3. APPLICANT'S EXPERIENCE OF SIMILAR ACTIONS

Maximum 1 page per action. Please provide a detailed description of actions managed by your organisation over the past three years. This information will be used to assess whether you have sufficient and stable experience of managing actions in the same sector and of a comparable scale to the one for which you are requesting a grant.

<table>
<thead>
<tr>
<th>Project title:</th>
<th>SECTOR²:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Conservancy Development Support</td>
<td>Tourism - 332</td>
</tr>
<tr>
<td>Services (CDSS) Project</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location of the action</th>
<th>Cost of the action</th>
<th>Lead manager or partner</th>
<th>Donors to the action (name)³</th>
<th>Amount contributed (by donor)</th>
<th>Dates (from dd/mm/yy to dd/mm/yy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kavango &amp; Kunene Regions, Namibia</td>
<td>980,000</td>
<td>NNF component of CDSS project; WWF lead</td>
<td>MCA-Namibia</td>
<td>980,000</td>
<td>01/11/2010 to 30/08/2014</td>
</tr>
</tbody>
</table>

**Objectives and results of the action**

The CDSS Project is one of three major MCA-N inter-related investments, which are designed to take advantage of Namibia’s lucrative and rapidly expanding Tourism sector. The MCA-N Programme seeks to build on the increasing tourist visitations to Namibia and directing tourism income to formerly disadvantaged communities in communal conservancies. The MCA Namibia CDSS aims to strengthen capacity of conservancies to protect their natural resources, attract investment, and achieve financial sustainability so that households in communal conservancies earn more revenue.

NNF’s role is to directly assist 6 communal conservancies build their capacity through training & technical assistance under the main themes of institutional strengthening, business & tourism development & natural resource management. As well as to access and successfully utilise financial resources from the MCA-N conservancy grant fund to further unlock the tourism potential of these conservancies.

² See the standard list of sectors in PADOR or in the PADOR offline form.
³ If the Donor is the European Commission or an EU Member State, please specify the EU budget line, EDF or EU Member State.
### Project title:
Namibia Country Pilot Partnership on Integrated Sustainable Land Management Support and Adaptive Management

### SECTOR:
Agriculture - 311

<table>
<thead>
<tr>
<th>Location of the action</th>
<th>Cost of the action (EUR)</th>
<th>Lead manager or partner</th>
<th>Donors to the action (name)</th>
<th>Amount contributed (by donor)</th>
<th>Dates (from dd/mm/yy to dd/mm/yy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namibia-wide (12 Regions)</td>
<td>1,860,000€ (N$18,614,474)</td>
<td>Ministry of Environment and Tourism / NNF</td>
<td>GEF, UNDP, Government of Namibia</td>
<td>1,860,000€ (N$18,614,474)</td>
<td>01/07/2008 to 31/12/2011</td>
</tr>
</tbody>
</table>

### Objectives and results of the action

The Project aim was to combat land degradation using integrated cross-sectoral approaches which enable Namibia to reach its MDG #7: “Environmental sustainability” and assure the integrity of dryland ecosystems and ecosystem services. **Build capacity at systemic, institutional and individual level, ensuring cross-sectoral and demand-driven coordination of SLM activities.**

NNF’s role was to act as an implementing co-ordinator between all stakeholders working at the regional and local levels and provide implementation services to the demonstration sites through the local offices. These services will include:

- Assuring full participation of all stakeholders, with special attention to local and community level actors and regional civil society service providers;
- Sourcing the demonstration activities as per the project document, through use of standard and tested recruitment and procurement procedures and policy;
- Provision of technical services and support;
- Ensuring that project outputs are of the necessary high quality and in accordance with the set timeline;
- Providing financial administration, management and accounting, including the cost-effectiveness of project activities;
- Ensuring accurate reporting and sharing of information to keep MET, UNDP and the programme’s coordination and supervisory structures and other partner ministries fully informed on all progress and challenges;
- Providing secretarial functions for the Demonstration activities and organising and reporting to key stakeholders during the CPP Management meetings.

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1 See the standard list of sectors in PADOR or in the PADOR offline form.

2 If the Donor is the European Commission or an EU Member State, please specify the EU budget line, EDF or EU Member State.
<table>
<thead>
<tr>
<th>Location of the action</th>
<th>Cost of the action (EUR)</th>
<th>Lead manager or partner</th>
<th>Donors to the action (name)</th>
<th>Amount contributed (by donor)</th>
<th>Dates (from dd/mm/yy to dd/mm/yy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caprivi &amp; Kavango Regions, Namibia</td>
<td>370.000€ (NAD 3,700,000)</td>
<td>NNF, supporting with Ministry of Marine Resources and Fisheries</td>
<td>WWF Norway</td>
<td>370.000€ (NAD 3,700,000)</td>
<td>01/01/2010 to 31/12/2012</td>
</tr>
</tbody>
</table>

**Objectives and results of the action**

The 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. Its goal is: *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*.

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

Output 2: Management plan for the fisheries developed and successfully implement with neighbouring countries for the benefits of the communities

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

Output 4: Tourism angling lodges operating in agreement with local fishery/conservancy committees

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

Output 6: Collaboration in NNF fish ranching project

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6 See the standard list of sectors in PADOR or in the PADOR offline form.
7 If the Donor is the European Commission or an EU Member State, please specify the EU budget line, EDF or EU Member State.
<table>
<thead>
<tr>
<th>Location of the action</th>
<th>Cost of the action (EUR)</th>
<th>Lead manager or partner</th>
<th>Donors to the action (name)</th>
<th>Amount contributed (by donor)</th>
<th>Dates (from dd/mm/yy to dd/mm/yy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namibia</td>
<td>1,604,000€ (NAD 16,040,000)</td>
<td>NANGOF Trust, financial management by NNF</td>
<td>EU</td>
<td>1,604,000€ (NAD 16,040,000)</td>
<td>...</td>
</tr>
</tbody>
</table>

Objectives and results of the action

The purpose of the programme is to **support effective sustainable civil society contributing to national development**. Through this intervention, civil society organisations will have enhanced capacity to engage in dialogue on key development issues and this dialogue will feed into concrete development opportunities at the grassroots level through accountable and transparent mechanisms. This vision of a working partnership is supported by and expressed in the draft Government-Civil Organisations Partnership Policy. In addition, the project purpose reflects the long-term nature of the **task of building sustainability and effectiveness in civil society**.

The NNF provided specific service support on:
- Budgetary and financial assistance and support
- Manage the financial contribution in conformity with sound financial and customary trade practice
- Ensure expenditure conforms with EDF procedures
- Ensure all financial reporting and requirements are adhered to
- Provide training, capacity building and support to any finance or finance support staff within NANGOF Trust
- Act as financial guarantee for NANGOF Trust during the EDF

The specific services of NANGOF Trust included during the project included:
- Building of Partnerships and Networks
- Lobbying and advocacy: Strengthened engagement of CSOs in National development processes
- Capacity building of NANGOF Trust, Civil Society of organizations

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9 See the standard list of sectors in PADOR or in the PADOR offline form.

9 If the Donor is the European Commission or an EU Member State, please specify the EU budget line, EDF or EU Member State.
III. THE APPLICANT

<table>
<thead>
<tr>
<th>EuropeAid ID number</th>
<th>NA-2012-CZF-0302393441</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the organisation</td>
<td>Namibia Nature Foundation (Trust)</td>
</tr>
</tbody>
</table>

1. IDENTITY
Information requested under this point need only be given in cases where there have been modifications or additions as compared to the information given in the Concept Note Form.

Applicant's contact details for the purpose of this action:

<table>
<thead>
<tr>
<th>Postal address</th>
<th>P.O Box 245, Windhoek, Namibia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone number: Country code + city code + number</td>
<td>+264 61 248 345</td>
</tr>
<tr>
<td>Mobile Country code + number</td>
<td>+264 81 489 3107</td>
</tr>
<tr>
<td>Fax number: Country code + city code + number</td>
<td>+264 61 248 344</td>
</tr>
<tr>
<td>Contact person for this action</td>
<td>Dr Julian Fennessy</td>
</tr>
<tr>
<td>Contact person's e-mail address</td>
<td><a href="mailto:jf@nnf.org.na">jf@nnf.org.na</a></td>
</tr>
<tr>
<td>E-mail address of the Organisation</td>
<td><a href="mailto:sw@nnf.org.na">sw@nnf.org.na</a></td>
</tr>
<tr>
<td>Website of the organisation</td>
<td><a href="http://www.nnf.org.na">www.nnf.org.na</a></td>
</tr>
</tbody>
</table>

Any change in the addresses, phone numbers, fax numbers and in particular e-mail, must be notified in writing to the European Commission. The European Commission will not be held responsible in case it cannot contact an applicant.

---

30 See footnote 2.
1. DESCRIPTION OF THE PARTNERS

This form must be completed for each partner organisation within the meaning of section 2.1.2 of the Guidelines for Applicants. You must make as many copies of this sheet as necessary to create entries for more partners.

| Partner 3       |  |  |
|-----------------|-----------------|
| EuropeAid ID number<sup>1</sup> | NA-2012-FSY-2302469015 |
| Full legal name | University of Namibia |
| Nationality<sup>2</sup> | Namibian |
| Experience of similar actions, in relation to the role played in the implementation of the proposed action | Is currently involved in a community-based fisheries management project |
| History of cooperation with the applicant | Currently collaborate with the applicant on mentioned project |

**Important:** This application form must be accompanied by a signed and dated partnership statement from each partner, in accordance with the model provided.

2. PARTNERSHIP STATEMENT

A partnership is a relationship of substance between two or more organisations involving shared responsibilities in undertaking the action funded by the European Commission. To ensure that the action runs smoothly, the European Commission requires all partners to acknowledge this by agreeing to the principles of good partnership practice set out below.

1. All partners must have read the application form and understood what their role in the action will be before the application is submitted to the European Commission.

2. All partners must have read the standard grant contract and understood what their respective obligations under the contract will be if the grant is awarded. They authorise the lead applicant to sign the contract with the European Commission and represent them in all dealings with the European Commission in the context of the action's implementation.

<sup>1</sup> See footnote 2.

<sup>2</sup> See footnote 1.
3. The applicant must consult with his partners regularly and keep them fully informed of the progress of the action.

4. All partners must receive copies of the reports - narrative and financial - made to the European Commission.

5. Proposals for substantial changes to the action (e.g. activities, partners, etc.) should be agreed by the partners before being submitted to the European Commission. Where no such agreement can be reached, the applicant must indicate this when submitting changes for approval to the European Commission.

6. Where the Beneficiary does not have its headquarters in the country where the action is implemented, the partners must agree before the end of the action, on an equitable distribution of equipment, vehicles and supplies for the action purchased with the EU grant among local partners or the final beneficiaries of the action.

I have read and approved the contents of the proposal submitted to the European Commission. I undertake to comply with the principles of good partnership practice.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Clinton Hay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation:</td>
<td>University of Namibia</td>
</tr>
<tr>
<td>Position:</td>
<td>Senior Lecturer</td>
</tr>
<tr>
<td>Signature:</td>
<td>[Signature]</td>
</tr>
<tr>
<td>Date and place:</td>
<td>1 June 2012</td>
</tr>
</tbody>
</table>

[Stamp: UNIVERSITY OF NAMIBIA]
IV. PARTNERS OF THE APPLICANT PARTICIPATING IN THE ACTION

1. DESCRIPTION OF THE PARTNERS

This form must be completed for each partner organisation within the meaning of section 2.1.2 of the Guidelines for Applicants. You must make as many copies of this sheet as necessary to create entries for more partners.

<table>
<thead>
<tr>
<th>Partner</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>European ID number</td>
<td>ZA-200056-12111344073 12F-6000829234</td>
</tr>
<tr>
<td>Legal name</td>
<td>DEPARTMENT OF FISHERIES</td>
</tr>
<tr>
<td>Nationality</td>
<td>ZAMBIA</td>
</tr>
<tr>
<td>Exposure to similar actions in relation to the role played in the implementation of the proposed action</td>
<td>Did some work with NNF on the Integrated co-management of fisheries project on the Zambezi River.</td>
</tr>
<tr>
<td>History of cooperation with the applicant</td>
<td>The department has been cooperating with NNF in collection fisheries data and sharing research findings.</td>
</tr>
</tbody>
</table>

Important: This application form must be accompanied by a signed and dated partnership statement from each partner in accordance with the model provided.

2. PARTNERSHIP STATEMENT

A partnership is a relationship of adhesion between two or more organisations involving shared responsibilities in undertaking the actions funded by the European Commission. To ensure that the action runs smoothly, the European Commission requires all partners to acknowledge this by agreeing to the principles of good partnership practice set out below.

1. All partners must have read the application form and understand what their role in the action will be before the application is submitted to the European Commission.

2. All partners must have read the standard grant contract and understand what their respective obligations under the contract will be if the grant is awarded. They authorise the lead applicant to sign the contract with the European Commission and represent them in all dealings with the European Commission in the context of the action's implementation.

3. The applicant must consult with his partners regularly and keep them fully informed of the progress of the action.

10 See footnote 2.  
11 See footnote 1.
4. All partners must receive copies of the reports - narrative and financial - made to the European Commission.

5. Proposals for substantial changes to the action (e.g. activities, partners, etc.) should be agreed by the partners before being submitted to the European Commission. Where no such agreement can be reached, the applicant must indicate this when submitting changes for approval to the European Commission.

6. Where the Beneficiary does not have its headquarters in the country where the action is implemented, the partners must agree before the end of the action, on an equitable distribution of equipment, vehicles and supplies for the action purchased with the EU grant among local partners or the final beneficiaries of the action.

I have read and approved the contents of the proposal submitted to the European Commission. I undertake to comply with the principles of good partnership practice.

Name: ALEX D. CHILALA
Organisation: DEPARTMENT OF FISHERIES - ZAMBIA
Position: PRINCIPAL FISHERIES OFFICER
Signature: 
Date and place: 26 MAY 2012

[Stamp: REPUBLIC OF ZAMBIA
MINISTRY OF AGRICULTURE
AND LIVESTOCK
PROVINCIAL FISHERIES OFFICER,
P.O. BOX 119933, LUSAKA]
IV. PARTNERS OF THE APPLICANT PARTICIPATING IN THE ACTION

1. DESCRIPTION OF THE PARTNERS

This form must be completed for each partner organisation within the meaning of section 2.1.2 of the Guidelines for Applicants. You must make as many copies of this sheet as necessary to create entries for more partners.

<table>
<thead>
<tr>
<th>EuropeAid ID number16</th>
<th>BW-2009-AUB-1802255269</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full legal name</td>
<td>Okavango Research Institute – University of Botswana</td>
</tr>
<tr>
<td>Nationality17</td>
<td>Botswana</td>
</tr>
<tr>
<td>Experience of similar actions, in relation to the role played in the implementation of the proposed action</td>
<td>20 Years</td>
</tr>
<tr>
<td>History of cooperation with the applicant</td>
<td>10 Years</td>
</tr>
</tbody>
</table>

Important: This application form must be accompanied by a signed and dated partnership statement from each partner, in accordance with the model provided.

2. PARTNERSHIP STATEMENT

A partnership is a relationship of substance between two or more organisations involving shared responsibilities in undertaking the action funded by the European Commission. To ensure that the action runs smoothly, the European Commission requires all partners to acknowledge this by agreeing to the principles of good partnership practice set out below.

1. All partners must have read the application form and understood what their role in the action will be before the application is submitted to the European Commission.

2. All partners must have read the standard grant contract and understood what their respective obligations under the contract will be if the grant is awarded. They authorise the lead applicant to sign the contract with the European Commission and represent them in all dealings with the European Commission in the context of the action's implementation.

3. The applicant must consult with his partners regularly and keep them fully informed of the progress of the action.

16 See footnote 2.
17 See footnote 1.
4. All partners must receive copies of the reports - narrative and financial - made to the European Commission.

5. Proposals for substantial changes to the action (e.g. activities, partners, etc.) should be agreed by the partners before being submitted to the European Commission. Where no such agreement can be reached, the applicant must indicate this when submitting changes for approval to the European Commission.

6. Where the Beneficiary does not have its headquarters in the country where the action is implemented, the partners must agree before the end of the action, on an equitable distribution of equipment, vehicles and supplies for the action purchased with the EU grant among local partners or the final beneficiaries of the action.

I have read and approved the contents of the proposal submitted to the European Commission. I undertake to comply with the principles of good partnership practice.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Kethatlogile Mosepele</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation:</td>
<td>Okavango Research Institute – University of Botswana</td>
</tr>
<tr>
<td>Position:</td>
<td>Senior Research Scholar – Fisheries Biology and Management</td>
</tr>
<tr>
<td>Signature:</td>
<td>![Signature]</td>
</tr>
<tr>
<td>Date and place:</td>
<td>5 June 2012, Maun</td>
</tr>
</tbody>
</table>

"UNIVERSITY OF BOTSWANA
OKAVANGO RESEARCH INSTITUTE

★ 05 MAY 2012 ★

PRIVATE BAG 285 MAUN
TEL: 6861833 FAX: 6861835

EuropeAid/131792/C/ACT/Multi – Annex A – Grant application form"
V. ASSOCIATES OF THE APPLICANT PARTICIPATING IN THE ACTION

This section must be completed for each associated organisation within the meaning of section 2.1.2 of the Guidelines for Applicants. You must make as many copies of this table as necessary to create entries for more associates.

<table>
<thead>
<tr>
<th>Associate 1</th>
<th>Ministry of Environment, Wildlife and Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full legal name</td>
<td></td>
</tr>
<tr>
<td>EuropeAid ID number:</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>Botswana</td>
</tr>
<tr>
<td>Legal status</td>
<td>Government Department</td>
</tr>
<tr>
<td>Official address</td>
<td>P.O. Box 131, Gaborone, Botswana</td>
</tr>
<tr>
<td>Contact person</td>
<td>Mr. Khuting</td>
</tr>
<tr>
<td>Telephone number: country code + city code + number</td>
<td>+267 3191031</td>
</tr>
<tr>
<td>Fax number: country code + city code + number</td>
<td></td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:skhuting@gov.bw">skhuting@gov.bw</a></td>
</tr>
<tr>
<td>Number of employees</td>
<td>40</td>
</tr>
<tr>
<td>Other relevant resources</td>
<td></td>
</tr>
<tr>
<td>Experience of similar actions, in relation to role in the implementation of the proposed action</td>
<td>Undertake and oversee all national fisheries management and conservation throughout Botswana, including research, permitting, training, etc. including community-based fisheries projects.</td>
</tr>
<tr>
<td>History of cooperation with the applicant</td>
<td>Training, technical support, etc...</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Associate 2</th>
<th>Ministry of Fisheries and Marine Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full legal name</td>
<td></td>
</tr>
<tr>
<td>EuropeAid ID number:</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>Namibian</td>
</tr>
<tr>
<td>Legal status</td>
<td>Government Department</td>
</tr>
<tr>
<td>Official address</td>
<td>Ministry of Fisheries and Marine resources</td>
</tr>
<tr>
<td><strong>Contact person</strong></td>
<td>Private Bag 1004, Ngweze, Katima Mulilo, Namibia</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td><strong>Telephone number:</strong> country code + city code + number</td>
<td>Christopher Munwela +264 66 253224</td>
</tr>
<tr>
<td><strong>Fax number:</strong> country code + city code + number</td>
<td>+264 66 253226</td>
</tr>
<tr>
<td><strong>E-mail address</strong></td>
<td><a href="mailto:cmunwela@yahoo.co.uk">cmunwela@yahoo.co.uk</a></td>
</tr>
<tr>
<td><strong>Number of employees</strong></td>
<td>&gt;100</td>
</tr>
<tr>
<td><strong>Other relevant resources</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Experience of similar actions, in relation to role in the implementation of the proposed action</strong></td>
<td>Undertake and oversee all national fisheries management and conservation throughout Namibia, including research, permitting, training, etc. including community-based fisheries projects.</td>
</tr>
<tr>
<td><strong>History of cooperation with the applicant</strong></td>
<td>Have been collaborating with the applicant for the last decade on fisheries related projects, particularly in the proposed area of this proposal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Full legal name</strong></th>
<th>Associate 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ministry of Agriculture, Rural Developement and Fisheries</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EuropeAid ID number:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Nationality</strong></td>
<td>Angolan</td>
</tr>
<tr>
<td><strong>Legal status</strong></td>
<td>Government Department</td>
</tr>
<tr>
<td><strong>Official address</strong></td>
<td>INIP. Mortala Mohammed street. Ilha de Luanda. Ingombota District. C.P. 2601</td>
</tr>
<tr>
<td><strong>Contact person</strong></td>
<td>Francisco João Luis de Almeida</td>
</tr>
<tr>
<td><strong>Telephone number:</strong> country code + city code + number</td>
<td>+244 926 72 82 51</td>
</tr>
<tr>
<td><strong>Fax number:</strong> country code + city code + number</td>
<td>+244 2 30 97 31</td>
</tr>
<tr>
<td><strong>E-mail address</strong></td>
<td><a href="mailto:Franciscoalmeida462@gmail.com">Franciscoalmeida462@gmail.com</a> <a href="mailto:falmeida16@yahoo.com">falmeida16@yahoo.com</a></td>
</tr>
<tr>
<td><strong>Number of employees</strong></td>
<td>&gt;100</td>
</tr>
<tr>
<td><strong>Other relevant resources</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Experience of similar actions, in relation to role in the</strong></td>
<td>First time to be involved in a community-based</td>
</tr>
<tr>
<td>Implementation of the proposed action</td>
<td>management project</td>
</tr>
<tr>
<td>History of cooperation with the applicant</td>
<td>No direct collaboration with NNF to date</td>
</tr>
</tbody>
</table>

| Full legal name | The South African Institute for Aquatic Biodiversity |
| EuropeAid ID number: |  |
| Nationality | South Africa |
| Legal status | SAIAB is a National Research Facility of the National Research Foundation (NRF) which is constituted under the National Research Foundation Act 23 of 1998. The NRF is listed as a Public Entity (Schedule 3A). |
| Official address | P/Bag 1015, Grahamstown 6140, South Africa |
| Contact person | Dr Olaf L.F. Weyl |
| Telephone number: country code + city code + number | +27 46 6035800 |
| Fax number: country code + city code + number | +27 46 6222403 |
| E-mail address | o.weyl@saiab.ac.za |
| Number of employees | 40 |
| Other relevant resources | Rhodes University (including Department of Ichthyology and Fisheries Science) associated institute. National fish collection. Several other research platforms with extensive equipment. Extensive contacts with ichthyologists throughout Africa and overseas. |
| Experience of similar actions, in relation to role in the implementation of the proposed action | SAIAB/Dr Weyl actively involved in several resource management projects directly relevant to the proposed project. In Zambia, implementing an assessment of the fish diversity, utilisation, monitoring and sustainable management in the Bangweulu Wetlands for the Bangweulu Wetlands Management Board/African Parks - Primary objective: undertake an assessment of the fish diversity and utilization in the area and develop recommendations for monitoring and sustainable management in the Bangweulu Wetlands. In Botswana, worked closely with the Fisheries Section for several years and helped to implement the Biakavango project and supervised post graduate research of some staff. In South Africa, SAIAB researchers instrumental in implementing a 2006-2009 NRF funded project; An assessment of the fishery of Lake Gariep with particular reference to the development of a decision-making tool for the obtaining optimal social and economic benefit from harvests, to use the Lake Gariep fishery as a case study for the development of a decision-making tool for the derivation of maximum economic and social benefit from the fisheries resource of large |
South African dams. Addo Elephant National Park (AENP), implemented World Bank funded research project to develop a management plan for the freshwater fishes of the AENP based on assessments of indigenous and alien fish abundance, fisheries potential and mitigation measures. SAIAF research now focused on more integrated approaches. A 2011-2013 South African/Netherlands partnership for development (SANPAD) project assesses impacts and benefits of alien fish introductions. Overall aim: to guide inland fisheries policy by undertaking comprehensive case studies of the social, economic, livelihoods and ecological consequences of stocking alien fishes to develop recreational, subsistence and commercial fisheries in man-made water bodies in the Eastern Cape Province of South Africa. Information collected will be used to develop a conceptual framework and methodology for predicting the impact of using alien fish species for enhancing the fisheries potential in inland fisheries. Further, the SAIAF contact person, Dr Weyl, has considerable co-management experience as the fisheries research and management adviser for the German technical Assistance (GTZ) supported National Aquatic Resource Management Programmes in Malawi from 1998 to 2002. SAIAF (lead researcher: D. Tweddle), with AWF and government fisheries departments, conducted extensive fish biodiversity surveys of entire Upper Zambezi system in 2002/3, including review of fisheries activities and prospects for co-management through the Barotse Royal Establishment.

SAIAF cooperated with NNF since 2010 in a number of projects. Together with UNAM, conducted research on comparative biology of cichlid fishes in the Okavango, Kwando and Chobe/Zambezi River systems to provide information for fisheries management. Linkages developed led to stronger links with NNF to obtain funding for further projects, i.e. NNF/Nedbank Go-Green fund/ Government of Namibia/ UNAM/ SAIAF/ NRF collaboration project: Towards a holistic management strategy for the fisheries of the Zambezi River and Eastern Caprivi Floodplains. Project undertakes research into dynamics of floodplain fisheries and particularly the re-colonisation of Lake Lhambezi with fish, to understand the dynamics of re-colonisation and fish invasion processes in previously desiccated environments. Results from this project help in developing proactive response strategies to react to natural (annual flood cycle fluctuations) and human-induced (fishing) changes in the fishery, providing information for best management practice in the floodplain fishery and allowing assessment of vulnerability of rural people to environmental changes.
<table>
<thead>
<tr>
<th>Official address</th>
<th>University of Hull, Cottingham Road, Hull, HU67RX, UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person</td>
<td>Professor Ian G. Cowx</td>
</tr>
<tr>
<td>Telephone number: country code + city code + number</td>
<td>+44 1482 466427</td>
</tr>
<tr>
<td>Fax number: country code + city code + number</td>
<td>+441482465458</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:i.g.cowx@hull.ac.uk">i.g.cowx@hull.ac.uk</a></td>
</tr>
<tr>
<td>Number of employees</td>
<td>2700</td>
</tr>
<tr>
<td>Other relevant resources</td>
<td>Resources associated with top 500 university in World</td>
</tr>
<tr>
<td>Experience of similar actions, in relation to role in the implementation of the proposed action</td>
<td>Development of fisheries and aquatic resource management plans for the Kafue Flats, Zambia (EU ACPII), Botswana major Reservoirs (EU ACPII), Lake Volta (FAO), Baro-Akobo river, Ethiopia and Ewaso Ngro Kenya (national agencies); Co-management arrangements in Lake Victoria (EU LVFRP and World Bank LVEMP); training in fishery and aquatic resource assessment in South Africa, Zambia, Ethiopia, Kenya, Tanzania, Uganda, Botswana, Ghana, Gambia (various agencies).</td>
</tr>
<tr>
<td>History of cooperation with the applicant</td>
<td>No direct collaboration with Namibia Nature Foundation but history of collaboration with Zambian Government Department of Fisheries (Kafue) and with other associate institute SAIAB (Dr Woyl &amp; students, Mr Tweedle). Currently assisting Botswana Fisheries Division.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full legal name</th>
<th>World Wildlife Fund (in Namibia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EuropeAid ID number:</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>USA</td>
</tr>
<tr>
<td>Legal status</td>
<td>NGO</td>
</tr>
<tr>
<td>Official address</td>
<td>19 Lossen Street, Windhoek, Namibia</td>
</tr>
<tr>
<td>Contact person</td>
<td>Mr. Chris Weaver</td>
</tr>
<tr>
<td>Telephone number: country code + city code + number</td>
<td>+264 61239945</td>
</tr>
<tr>
<td>Fax number: country code + city code + number</td>
<td></td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:cweaver@wwf.na">cweaver@wwf.na</a></td>
</tr>
<tr>
<td>Number of employees</td>
<td>20</td>
</tr>
<tr>
<td>Other relevant resources</td>
<td></td>
</tr>
<tr>
<td>Experience of similar actions, in relation to role in the implementation of the proposed action</td>
<td>Community-based natural resource management and provide technical support and a key donor.</td>
</tr>
<tr>
<td>History of cooperation with the applicant</td>
<td>WWF has worked with NNF since 1993 on various projects and since 2001 on fisheries related projects.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Associate 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full legal name</strong></td>
</tr>
<tr>
<td><strong>EuropeAid ID number:</strong></td>
</tr>
<tr>
<td><strong>Nationality</strong></td>
</tr>
<tr>
<td><strong>Legal status</strong></td>
</tr>
</tbody>
</table>
| **Official address** | Plot No. 29 John Huntway  
P.O. Box 61087  
Livingstone, Zambia  
Ngong Road, Karen  
P.O. Box 310, 00502  
Nairobi, Kenya |
| **Contact person** | Mr. Nesson Tembo |
| **Telephone number: country code + city code + number** | +260 213 321 516 (Zambia)  
+254 20 276 5000 (Kenya) |
| **Fax number: country code + city code + number** | +254 20 276 5030 (Kenya) |
| **E-mail address** | ntembo@awfafrica.org |
| **Number of employees** | 150 |
| **Other relevant resources** | AWF is helping local communities to monitor fish catches along with maintaining a new sustainable aquaculture project. AWF is supporting resource inventories that help to establish the status of the fish population, and inform recommendations for sustainable resource use. AWF is also working to educate communities on natural resources, including aquatic, and their sustainable use and protection.  
AWF created the Aquatic Resources Working Group (ARWG), a group of technical experts drawn from the respective fisheries departments in five countries: Botswana, Mozambique, Namibia, Zambia, and Zimbabwe. The ARWG priority is to gain a greater understanding of the fish that swim in the Zambezi River system as well as a |

*EuropeAid/131792/C/ACT/Multi – Annex A – Grant application form*
clearer picture of the river system itself.

The ARWG examined and documented cross-border migration patterns and home ranges for selected fish species in relation to habitat characteristics, and then recorded the effects of fluctuations in water levels, temperature changes, and seasonality on fish migration behaviour and breeding.

Additionally, AWF has supported the establishment of the Inyambo Community Trust - a community model for community management to support sustainable fishing and the aquaculture project, which also supports good governance, benefit sharing and good governance.

AWF is working with the Zambian Department of Fisheries, the Inyambo Community Trust and Inyambo Chiefian on the aquaculture project, identification and protection of fish breeding zones and sustainable fisheries.

| History of cooperation with the applicant | NNF has worked with AWF since the inception of the first transboundary project in the region – Four Corners, in 2001. |

<p>| Associate | 8 |
| Full legal name | Kavango Zambezi (KAZA) Transfrontier Conservation Area (TFCA) |
| EuropeAid ID number: | |
| Nationality | Transfrontier coordinating body, secretariat based in Botswana |
| Legal status | Signed KAZA Treaty by partner countries |
| Official address | KAZA TFCA Secretariat |
| | P. O. Box 821 |
| | Kasane |
| | Botswana |
| Contact person | Dr Simon Munthali (Technical Adviser) |
| Telephone number: country code + city code + number | +267 625 1332/1452/1269 |
| Fax number: country code + city code + number | +267 625 1400 |
| E-mail address | <a href="mailto:muchina.munthali@gmail.com">muchina.munthali@gmail.com</a> |
| | <a href="mailto:info@kazatfca.org.bw">info@kazatfca.org.bw</a> |
| Number of employees | Ten |
| Other relevant resources | Open communication with all member countries at the highest levels of government. |
| Experience of similar actions, in | KAZA is a newly-established entity, which up to now has |</p>
<table>
<thead>
<tr>
<th>relation to role in the implementation of the proposed action</th>
<th>concentrated activities primarily on wildlife issues. Fisheries will extend their portfolio. Technical Adviser, Dr Munthali, has a background in inland fishes conservation and management in Malawi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of cooperation with the applicant</td>
<td>Limited so far to regular meetings concerning Namibia/Botswana cooperation over management of shared Chobe River resources. However, NNF has been represented at the KAZA TFCA inauguration meetings and the first scientific symposium held on key species.</td>
</tr>
</tbody>
</table>
### VI. CHECKLIST

Before sending your proposal, please check that each of the following components is complete and respects the following criteria:

<table>
<thead>
<tr>
<th>Title of the Proposal:</th>
<th>To be filled in by the applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART 1 (ADMINISTRATIVE)</strong></td>
<td></td>
</tr>
<tr>
<td>1. The correct grant application form, published for this call for proposals, has been used.</td>
<td>X</td>
</tr>
<tr>
<td>2. The Declaration by the applicant has been filled in and has been duly signed and has been sent together with the full application form.</td>
<td>X</td>
</tr>
<tr>
<td>3. The proposal is typed and is in English, French or Spanish.</td>
<td>X</td>
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<tr>
<td>4. Each formal partner has completed and signed a partnership statement and the statements are included. (Please indicate &quot;Not applicable&quot; if you have no partner – if allowed by the guidelines for this call).</td>
<td>X</td>
</tr>
<tr>
<td>5. The budget is presented in the format requested, is expressed in EUR and is enclosed.</td>
<td>X</td>
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<tr>
<td>6. The logical framework has been completed and is enclosed.</td>
<td>X</td>
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<tr>
<td><strong>PART 2 (ELIGIBILITY)</strong></td>
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<tr>
<td>7. The action will be implemented in an eligible country(ies)</td>
<td>X</td>
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<td>8. The duration of the action is between 24 and 60 months (the minimum and maximum allowed).</td>
<td>X</td>
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<tr>
<td>9. The requested contribution is between 300 000 EUR and 1 500 000 EUR for Lot 1 (the minimum and maximum allowed) and between 1 000 000 EUR and 3 000 000 EUR for Lot 2 (the minimum and maximum allowed).</td>
<td>X</td>
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<tr>
<td>10. The requested contribution is equal to or less than 100% of the total estimated eligible costs (maximum percentage allowed).</td>
<td>X</td>
</tr>
<tr>
<td>11. The requested contribution is equal or less than 80% of the estimated total acceptable costs (maximum percentage allowed).</td>
<td>X</td>
</tr>
<tr>
<td>12. The EU contribution requested does not vary by more than 20% from the estimation presented in the corresponding Concept Note or a justification has been provided under section II.2 of the Full Application Form.</td>
<td>X</td>
</tr>
</tbody>
</table>
VII. DECLARATION BY THE APPLICANT

The applicant, represented by the undersigned being the authorised signatory of the applicant, and, in the context of the present call for proposals, representing any partners (if any) in the proposed action, hereby declares that

☐ it has the sources of financing and professional competence and qualifications specified in section 2 of the Guidelines for Applicants;

☐ it undertakes to comply with the obligations foreseen in the partnership statement of the grant application form and with the principles of good partnership practice;

☐ it is directly responsible for the preparation, management and implementation of the action with its partners and is not acting as an intermediary;

☐ it and its partners are not in any of the situations excluding them from participating in contracts which are listed in Section 2.3.3 of the Practical Guide to contract procedures for EU external actions (available from the following Internet address: http://ec.europa.eu/europeaid/work/procedures/implementation/practical_guide/index_en.htm. Furthermore, it recognizes and accepts that if it participates in spite of being in any of these situations, it may be excluded from other procedures in accordance with section 2.3.3 of the Practical Guide;

☐ the applicant and each partner (if any) have submitted the supporting documents as stipulated under section 2.4 of the Guidelines for Applicants;

☐ it and each partner are eligible in accordance with the criteria set out under sections 2.1.1 and 2.1.2 of the Guidelines for Applicants;

☐ if recommended to be awarded a grant, it accepts the contractual conditions as laid down in the Standard Contract annexed to the Guidelines for Applicants (annex F);

☐ it and its partners are aware that, for the purposes of safeguarding the financial interests of the European Union, their personal data may be transferred to internal audit services, to the European Court of Auditors, to the Financial Irregularities Panel or to the European Anti-Fraud Office.

The following grant applications have been submitted (or are about to be submitted) to the European Institutions, the European Development Fund and the EU Member States in the last 12 months.

- <list only actions in the same field as this proposal>

The applicant is fully aware of the obligation to inform without delay the European Commission if the same application for funding made to other European Commission departments or other EU institutions has been approved by them after the submission of this grant application.

If any elements included in the concept note has had to be modified in the full application form please specify and justify below:

The applicant declares that the information provided in the Grant Application form and in this Declaration is correct and does not vary (except for the possible changes specified above) from the one given in the Concept Note form in the first phase of this Call. It understands that any change between the Concept Note and the Full Application not brought to the attention of the European Commission may lead to the rejection of the proposal.

EuropeAid/131792/C/ACT/Multi – Annex A – Grant application form
Signed on behalf of the applicant

<table>
<thead>
<tr>
<th>Name</th>
<th>Dr Julian Fennelly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>[Signature]</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
<tr>
<td>Date</td>
<td>4th June 2012</td>
</tr>
<tr>
<td>Overall objective</td>
<td>Intervention logic</td>
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<tr>
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<td>Contributing to improved food security in the area particularly for women, children and the rural poor through improved fisheries management.</td>
</tr>
<tr>
<td>Specific objective</td>
<td>Establishment of community-based, sustainable management systems for riverine/floodplain fisheries in the river basins of the project area.</td>
</tr>
<tr>
<td>Expected results (1)</td>
<td>Effective communication channels (network platforms) established between all stakeholders, local, national and particularly international.</td>
</tr>
</tbody>
</table>

Annex 1: Description of the action – LOGFRAME. Grant 2012/301055
### Expected results (2)

**Capacity built in fisheries management, particularly at local community level but also at local government level and in fisheries departments at national level**

- Community members collecting fisheries data throughout project.
- Fisheries scientists from the different fisheries departments conducting fisheries and scientific research throughout project.
- Fisheries officers working in collaboration with communities by end-2013.
- Training workshops as required.

- Data collected by community members available.
- Reports produced by fisheries scientists from the different fisheries departments.
- Workshop minutes and reports.
- Fisheries departments’ reports.

**Fisheries staff (scientists and managers) available from the different fisheries departments. Community members appointed as fish monitors.**

### Expected results (3)

**Improved aquatic habitat and fishery resulting from establishment of network of Fish Protection Areas and elimination of environmentally damaging fishing methods.**

- A minimum of ten FPAs established and managed by the communities by end-2016.
- Tourism sector collaborating with fishing communities and full agreement on those FPAs with potential for tourism income generation by end-2015.
- Increase in recreational fishery activities and thus improved income for communities by end-2016.
- No environmentally damaging fishing methods used in FPAs.
- Evidence of decline in use of such gears in key fishery areas by end-2016.
- Stabilisation of fishers’ catches in project fishery areas by end-2015.
- Evidence of beginning of recovery of fish catches in over exploited key fishery areas and thus progress towards optimised yields and income for communities by end-2016.

- Boundaries and rules and regulations of FPAs documented.
- Management plans of FPAs prepared, adopted, implemented.
- Catch data from fisheries.
- Catch records from recreational fisheries.
- Tourism sector reports.
- Project monitoring reports. Patrol reports indicating no illegal fishing methods used in FPAs.
- Catch and income data from fisheries surveys and recognised community structures (e.g. conservancies, trusts).
- Project monitoring reports.

**Governments’ policies of support for community-based management translated into implementation of relevant activities to support policy. Support from communities to establish FPAs. Suitable areas available to establish FPAs. Tourism industry playing a major role in income generating in relevant areas. Willingness between tourism industry, recreational fishery interests and communities to collaborate. Patrolls done by communities. Reports from monitoring surveys available. Support by governments for programme for improved fisheries catch data collection.**

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**Annex 1: Description of the action – LOGFRAME. Grant 2012/301055**
| Expected results (4) | Advocacy for harmonised fisheries legislation empowering local communities to manage own fisheries resources. | Legislation between different fisheries and neighbouring countries harmonised with similar objectives by end-2014. Fully implemented community based fisheries management systems in place by end-2016. Communities fully involved in all decision-making and planning of fishery management activities throughout project area by end-2016. | Documentation available to indicate harmonised rules and regulations. Amendments to fisheries acts & regulations gazetted. Project reports. Documentation available to indicate presence of women playing prominent role in the management process. Minutes of meetings of fishers' committees. | Inputs needed from fisheries departments regarding their legislation. Collaboration of all stakeholders. |

| Expected results (5) | Fish ranching established in existing natural water bodies. | Fish ranching practised by communities in minimum of 80 suitable water bodies throughout the project areas by end-2015. | Communities harvesting fish from water bodies. Project monitoring reports and community reports indicating income through selling of fish from water bodies. | Areas suitable for fish ranching. Communities willing to follow instructions. Availability of rain water. Availability of fingerlings for stocking. |

| 1. Activities | Using lessons learned from current NNF Project in Caprivi, Namibia, to develop similar community based management systems for other fisheries areas in the Zambezi, Chobe and Okavango River Systems by establishing effective communication channels (network platforms) between all stakeholders, local, national and particularly international and by improving cross border collaboration between communities and other stakeholders. | Workshop proceedings. Steering committees ToR. Steering committees meetings minutes and reports. Fisheries areas management plans. Management plans recognition by government. Community training workshop reports. Monitoring reports. Project reports. | All stakeholders in agreement regarding community based approach. Agreements achieved between stakeholders on management processes and the way forward. Agreement by all stakeholders on the functions of the steering committees. |

| 1.1. | Establish detailed project framework through consultation process with all project partners and associates. | In-country consultation workshops held by April 2013. Full project consultative and planning workshop held by June 2013. | | |

| 1.2. | Sensitisation of fisheries stakeholders achieved through cooperation between project, communities, and Fisheries departments. | Meetings held with all fisheries departments to lay the foundation for the establishment of steering committees by end-June 2013. Fishing communities sensitised by project working with fisheries | | |

Annex 1: Description of the action – LOGFRAME. Grant 2012/301055
1.3. Establish cross-border steering committees at different levels (communities, conservancies, local authorities, government departments/ministries, etc.) to enhance communication links and facilitate information exchange contributing to well-managed fisheries.

1.4. ToR developed by each steering committee for its particular situation.

1.5. Identify areas for management interventions.

1.6. Finalise the management structures developed in the project through consultative workshops with all stakeholders.

2. Activities

| Capacity building in fisheries management, particularly at local community level but also at local government level and in fisheries departments at national level for both research (scientific and socio-economic) and management. |
| Workshop held to discuss research and standardisation of research methodology. |
| Workshop held by end-June 2013. |

| 2.1. Workshop held to discuss research and standardisation of research methodology. |
| Workshop held by end-June 2013. |
| Workshop minutes. |
| Appointments of trained scientists in departments and institutes networking through the project. |
| Appointment of fish monitors. |
| Scientific theses, reports and papers. |
| Management plans incorporating research findings. |
| Project reports |

| 2.2. Facilitate and coordinate research programmes on the fish, fisheries, and dependent communities in each country. |
| Publication of minimum of 2 PhD theses, 3 MSc theses, 3 BSc Hons theses, 10 research reports/scientific papers by end-2016. |
| Incorporation of research results into management of fisheries throughout |

| 2.3. Assist with data analysis and |
| Annex 1: Description of the action – LOGFRAME. Grant 2012/301055 |
| 2.4. | Exchange visits carried out with neighbouring communities (local and international) to discuss best practices and lessons learned, and to develop comprehensive management plans and formal agreements. | Community fishing committees successfully established and functioning by end-2014. Community members attend training workshops in fisheries management and CBNRM by end-2015. Community members implementing management plans as and when they are established during the project. Exchange visits successfully carried out at appropriate times during the project, as agreed in planning workshops (Activity 1.1). | Reports on exchange visits. Project reports. | Agreements reached between different stakeholders on time and area for exchange visits. |
| 2.5. | Establish fishery committees at local level for all fishery areas throughout the project area. | | | |

| 3. Activities | Improved aquatic habitat and fishery resulting from establishment of network of Fish Protection Areas and elimination of environmentally damaging fishing methods. | FPA management plans showing boundaries, rules and regulations. Catch statistics, recorded data sheets received from community members. Fisheries committees, government and NGOs meeting minutes. Project reports. Records of destructive fishing gears confiscated and destroyed. Records of destructive fishing gears handed in by fishers. | FPAs established and community members appointed as fish monitors. Equipment available for data collection and data analysis. Fishing communities engage with NGOs and government fisheries departments to remove destructive fishing gears. |
| 3.1. | Identify suitable sites for FPAs based on habitat suitability for key fish species; distribution of sites through the project area to ensure effective network; potential for communities to earn revenue through tourism. | A minimum of ten FPAs established and managed by the communities by end-2016. Community members developing and implementing FPA management plans as and when they are established during the project. Tourism sector collaborating with fishing communities and full agreement on those FPAs with potential for tourism income generation by end-2015. Increase in recreational fishery activities and thus improved income for communities by end-2016. Improved yields and income for communities by end-2016. No environmentally damaging fishing methods used in FPAs, and evidence of decline in use of such gears in key fishery areas by end-2015. | |
| 3.2. | Develop management plans for FPAs. | | | |
| 3.3. | Train community members in implementing FPA management plans and in monitoring and evaluation. Training to be done at pilot FPAs in Caprivi with support from community fish monitors at Sikunga and Impalila. | | | |
| 3.4. | Visit by community members at the two pilot FPAs in Caprivi to the different regions, and community | | | |

Annex 1: Description of the action – LOGFRAME. Grant 2012/301055
3.5. Visits from other potential FPA sites to the two pilot FPAs in Caprivi.
3.6. Evaluate quality of recorded data from the different FPAs.

Engage with communities to halt the use of destructive fishing gears.

4. Activities

4.1. Advocacy for harmonised fisheries legislation empowering local communities to manage own fisheries resources.

- Review legislation in each country.

4.2. Promote harmonisation of legislation by countries with shared fishery areas.

- Consultative workshops held in each country by end-2013. Transboundary consultative workshop(s) held by June 2014. Agreement(s) on harmonised legislation between different fisheries and neighbouring countries with similar objectives agreed by end-2014.
- Agreed amendments to national legislation gazetted by end-2016.
- Agreed community-based bye-laws by end-2016.
- Communities and authorities actively involved in, and fully informed about, the processes and current activities throughout project.

Documentation available to indicate harmonised rules and regulations. Amendments to fisheries acts & regulations gazetted. Minutes of regular meetings held between communities and authorities. Project reports. Documentation available to indicate presence of women playing prominent role in the management process. Target groups such as women, children and rural poor stating benefits received. Fishers’ committees' minutes. Bye-laws recognised by communities and government departments.

4.3. Advocate for gazettement of changes in national legislation to harmonise regulations for shared fishery resources and to empower local communities to manage own fisheries resources.

4.4. Establish close links between authorities and fishing communities.

4.6. Agree local bye-laws to suit characteristics of distinct fishery areas.

5. Activities

5.1. Support for expansion of Namibian fish ranching programme into suitable water bodies in neighbouring countries.

- Promote fish ranching in existing natural (e.g. rain water pans) and artificial (e.g. road construction) At least 50 suitable water bodies identified for stocking in project area by end-2013 and stocked at least

Inventories of suitable water bodies. Inventories of fish stocked across the study area. Harvesting records from communities. Training workshop reports for each stocking site (or group of sites). Fisheries Department reports.

Availability of suitable sites and fish fingerlings. The necessary documentation and approval from government departments to distribute fish.

Annex 1: Description of the action – LOGFRAME. Grant 2012/301055
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<tr>
<td><strong>5.2.</strong></td>
<td>gravel pits) water bodies. Identify suitable sites for the fish ranching programme and whether communities are in support of this programme.</td>
<td>once by end-2014. At least 80 suitable water bodies identified for stocking in project area by end-2014 and stocked at least once by end-2015. Communities trained at each selected site for stocking in advance of stocking taking place. At least 70% of stocked pans and other suitable water bodies continue to function by end-2016.</td>
</tr>
<tr>
<td><strong>5.3.</strong></td>
<td>Identify suitable source of fish fingerlings (endemic tilapiine species) for stocking in each country or river basin.</td>
<td></td>
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<tr>
<td><strong>5.4.</strong></td>
<td>Provide training in fish husbandry to community owning each water body to be stocked.</td>
<td>Project reports.</td>
</tr>
<tr>
<td><strong>5.5.</strong></td>
<td>Stock suitable sites.</td>
<td></td>
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<tr>
<td><strong>5.6.</strong></td>
<td>Monitor activities and yields at each stocked site.</td>
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Annex 1: Description of the action – LOGFRAME. Grant 2012/301055