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

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Evaluation of the Community-Based Fishery Management Approach at Muyako, Lake Liambezi

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1. Introduction

From ancient times fishing has been a major source of human food and a provider of employment and economic benefits to those engaged in it. These resources are, however, finite and most fisheries are fully or over-exploited due to human population growth. Hence they need to be properly managed if their contribution to nutritional, economic and social well-being of the growing world's population is to be maintained.

Conservationists and governments now recognise that top-down approaches to conservation have been insufficient, because they ignored the human and social dimension of natural resource management (Pomeroy, 1995). Together with experiences from rural development and conceptualisation of 'sustainable development', this has spawned a movement in conservation away from reliance on protection and enforcement. The new approaches place more emphasis on sustainable utilisation of resources and the involvement of local people and other stakeholders directly in conservation decision making processes (Jones, 1996).

About 92% of Namibia's surface area is classified as arid (Naesje, 1999) with inland water covering approximately 5,000 km², mainly located in the northern parts of the country (Caprivi and Kavango) with additional fisheries in Owambo, Hardap and more isolated inland lakes. Detailed figures are not available for production of fish from inland sources in Namibia, however, production in Caprivi, Kavango and the Cuvelai system is estimated no to be less than 2000, 800-1000 and 250 tonnes respectively (MFMR, 2009). Tvedten *et al.*, (1994) reported that production of inland fish in Namibia was set at an estimate of 2800 metric tonnes. This is an underestimate, however, as Tweddle and Hay 2011 reported that Lake Liambezi alone produced approximately 1700 tonnes in 2011 and while the Caprivi floodplains as a whole up to 6000 tonnes. Considering the fact that Namibia is an arid country with an area of 826,635 km² and with merely 5,000 km² inundated with fresh water, the potential of sustainable freshwater fisheries management will largely depend on sustainable utilization of the resources and proper water management policies. Inland fisheries in Namibia provided livelihood to 100000 people according to MFMR (1995), and this is increasing.

Because of the importance of freshwater fisheries the government of Namibia developed policies and laws to guide the management of freshwater resources in the country. Those legal instruments are the white paper on the Responsible Management of the Inland Fisheries of Namibia and the Inland Fisheries Resources Act of 2003. The white paper has nine (9) objectives to achieve in managing fresh water fisheries. These are as follows:

- Ensure the sustainable, optimal utilization of fresh water fish resource,
- To ensure that the objective above are based on sound ecological knowledge and principles
- To, in communal resources, favour utilization by subsistence households and fishers rather than commercialisation of the resource,
- To ensure that the responsibility of management of the communal resources is vested at local level rather that at central government,
- To ensure that local subsistence fishers through local community leaders are consulted about the extent the communal resource can be used for competitive and recreational angling by tourists,
- To strive for holistic approach in the management of fish, rivers and flood plain environments,
- To regulate the exploitation of fish in government owned dams,
- To regulate sport fishing in inland waters, and
- To ensure co-ordination and cooperation between countries in the region, sharing inland water bodies and rivers with Namibia.

Fisheries activities in Caprivi are an integral part of the livelihoods of the inhabitants of that region. Fishing is one of the main sources of income and employment. About 30% of the households in the Kabe constituency of the Caprivi region depend primarily on the fishery for subsistence and income purposes. Earned income from the fishery went to meet basic expenses such as food and clothing (MFMR, 2009). Because livelihoods of many people in Caprivi are dependent on fish both for household and income generation, an evaluation of community control of the Lake Liambezi fisheries, particularly at Muyako village, was considered necessary under the Zambezi/Chobe Fisheries Project

The Following Terms of reference were drafted to guide the consultant

1. Consult with the fisheries committee, the local khuta, the fishermen and other stakeholders to determine the reasoning behind establishing a community-based fisheries management initiative and the process to establish this.

- 2. Determine whether any benefits are accruing to the local community from the fishery.
- 3. Determine what section of the community is actively involved in the fishing activities and are benefitting from it.
- 4. Consult with the fisheries committee to establish whether there are any foreigners fishing in the lake and if so, how do they control this.
- 5. Document the regulations as developed by the community and also how this is implemented.
- 6. Provide a list of all stakeholders involved.
- 7. Report on whether the community needs any assistance, and if so, from which institution.
- 8. Report on the post-harvest activities.
- 9. Report on the marketing aspects of the fishery at the lake, especially on the export markets.

2. Study Area

2.1. Muyako village

Muyako village is situated approximately 60km south west of Katima Mulilo (see figure 1& 2). It is a sizeable village where some prominent figures in the Namibian society are from. There are two sub-khutas – one for Subia and another for Mafwe.

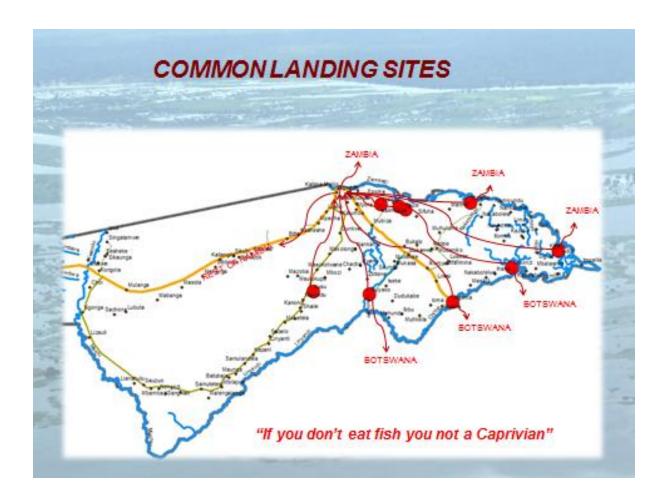


Figure 1: Caprivi Region with Main Villages (MFMR, 2011)

Livelihoods in this community are mainly based on crops and livestock farming, fishing and to a lesser extend small cuca shops. With regard to basic services, there is a combined school and health centre. Muyako village is also part of Salamabala conservancy.

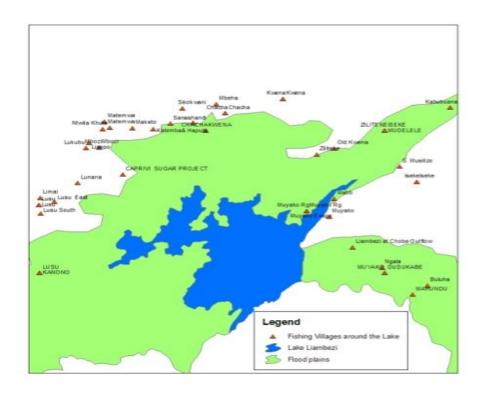


Figure 2: Lake Liambezi showing Fishing Villages(MFMR, 2011)

2.2. Lake Lambezi

Lake Liambezi comprises an area of about 300 km², of which 100 km² is open water when the lake is full. The lake level is highly variable and was dry between 1985 and 2000 when the lake received some inflow. When the lake is dry it is used mainly as crop fields for the villagers and the soil is very fertile especially for maize production.

During 2007 the lake received substantial inflow and then a major flood in 2009 filled the lake. Since then the lake has received an inflow annually with the result than a fishery developed at the lake.

A major fishery developed similar to the one during the 1970s. This resulted in an influx of fishermen from the region, with even fishermen from Zambia taking part in these activities.

With the potential of conflict and overfishing, the community decided to organise themselves and a fisheries committee was established at Muyako. Fisheries regulations were developed and a community-based fishery was initiated.

It is therefore important that this initiative and the process of managing the fishery by a community is documented and lessons learned be made available to other communities in the region.

3. Methods

A study of this nature requires various methods of data collection. Qualitative, group discussion, informal interviews, observation and secondary sources as method of data capturing were employed during data collection.

The fieldwork lasted for four days, 17 - 20 December 2011. The consultant was assisted by a local person Mr. Osbert Simataa who knew the fishers and the community in general. In addition to leading the way he was also translating the interview to the consultant. Prior arrangements with potential interviewee(s) were made before the actual interview.

4. Results

4.1 Muyako Fisheries Committee (MFC)

The committee was established in 2009, after the community realised that there was an influx of people from different places including foreigners coming to harvest the fish resource in the lake. The Traditional Authority called for a community meeting to discuss the issue. The community resolved the issue and constituted a fisheries committee. The committee members were elected by the community. The election process was by show of hands. The committee members decided on the portfolios. The election process was officiated by the Village Development Committee.

The structure of the committee is as follows:

- Chairperson
- Vice Chairperson
- Secretary
- Vice Secretary
- Treasurer
- Vice treasurer
- 4 Additional members

The current committee was elected in February 2011 after the old committee was dissolved due to tribal mistrust. The Mafwe people were not happy as according to them, they were not fully represented on the committee. According to a group discussion meeting with the community members, where the indunas of the two khutas were present, the old committee was dissolved because it was ineffective. It was reported during the same meeting that they thought the new committee was going to be better than the old but to their surprise it is also ineffective.

The current committee, however, dismissed the assertion of the group discussion that the current committee is ineffective. They said that only a few community members were not

happy with their services. This was because the committee had not yet given feedback on money collected from fishers and fish traders.

4.2 Reasons why the MFC was established

According to the committee the MFC establishment was for several reasons. These were:

- To conserve the fish resource from over-exploitation
- To ensure that fishers mush have their gill net registered with the Regional Council
- To generate community income from the levies charged from fishers and fish traders
- Assist poor members of the community

On this last point the committee reported that they helped several families financially where fishers drowned in the lake by covering the burial costs.

4.3 Functions of the MFC

According to the committee their functions were as follows:

- To control the new entrants
- Collect levies from fishers and fish traders
- Control Fishing gears
- Listen to suggestions from different stakeholders including foreigners.

The committee indicated that the chairperson and some members of the committee deal with the collection of money whereas the vice chairperson and some other members of the committee deal with the operational issues. They monitor unlawful fishing practices such as bashing, use of light, shade net and drag net. They also patrol onshore and supervise the two harbours (landing sites). When it comes to effective patrol the committee indicated that they are limited by lack of safe equipment such as boats, life jackets and perhaps guns to use while patrolling as some fishers at times become unruly.

4.4 Money collected from fishers and fish traders

Table 1 shows different levies and fines collected from fishers and fish traders at Muyako and Lusu respectively. Both Muyako and Lusu take the use of unauthorised fishing gears as a serious offence as can be seen from the amount of the fine. Someone committing an offence using unauthorised fishing gear at Lusu pays double the fine than the one who is committing the same offence at Muyako. Interestingly, the fisher at Lusu pays very little levy compared to a fisher at Muyako. Money collected at Lusu is being spent on the building of traditional khuta's office whereas at Muyako there is no tangible community project on the ground apart from helping the families who lost their family members in the lake with funeral/burial cost.

This is no surprise because there is no constitution or any guiding document to guide the committee members at Muyako and Lusu to hold them accountable for the funds collected.

Table 1: Money collected as levies from the fisher and fish traders at Muyako and Lusu

Muyako			Lusu				
	Fisher	Fish Trader	Fisher	Fish Trader	Net ownership	Other business than fish (e.g sale of food stuff)	Khuta Fee (admistr ation fee)
Levy	N\$ 250 p/m	N\$20 p/m	N\$ 10 p/m	N\$50 p/m	N\$ 20 p/m	N\$ 10 p/w	N\$150
Fines							
Unauthoris ed gear	NS500		NS1000				
Illegal Fishing e.g bashing	N\$500		N\$500				
Fighting	N\$250 -N\$500						
Alcohol	-	-	N\$200.00				

4.5 Regulations regarding Accessing fisheries at Muyako

The MFC has put several regulations in place to be followed when one wants to harvest fish in Lake Liambezi. The following are the regulations reported during the survey.

- Every new fisher should report to the committee, thereafter the committee will introduce him to the traditional authority
- The fisher should have only a minimum size of 3.5 inch net and should provide proof of the net's registration with the Regional Council
- Fishers who enter the lake illegal are fined and depending on the attitude of the fisher he may be denied future entry in the lake.
- Only a canoe of at least 6 metre long and over a metre wide allowed into the lake.
- Young people under the age of 18 are not allowed to enter the lake for fishing reasons
- Old and drunken people are not allowed to enter the lake
- Foreign fish traders have to report to the committee before conducting their business.

Both the community and the committee indicated that the above regulations are being followed accordingly.

4.6 Benefits Accrued from Fishing

Livelihoods in Caprivi region depend on three components namely crop farming, livestock farming and fishing (Figure 3).



Figure 3: Various livelihood strategies in Caprivi

The community reported that they were happy with the benefits they were accruing from fish. In a community member's own words; "fish is very important to us, you see many people in this village having cuca shops, where they got the start-up capital from fish. Many people pay their children's school fees from fish. Livestock is also important but one cannot sell livestock every day. So fish is very important to us because everybody who wants fish can access it, both, elders and children, men and women alike". Another community member said "Caprivi region was the number one maize producer in the country but for now the land where we used to get maize is underwater, now one cannot say we get more benefit from maize because where is the land where one should produce, the land is under water?'.

Different cooler box sizes (Fig. 4) are used as the measurement for the price of fish.



Figure 4: Different coolers used as measurement of fish per unit price

A large cooler of fish sells at N\$400 and N\$350 at Muyako and Lusu landing sites respectively. The same cooler sells between N\$500 – N\$600 at the Katima Mulilo fish market. The price fluctuates based on the supply of fish. If fish is plenty at the market fishers usually lower the price so that it can be sold quickly before the fish get spoiled. The medium cooler sells at N\$200 and N\$150 at Muyako and Lusu respectively. The same cooler sells for N\$300 at the Katima Mulilo market, while the smaller cooler sells for N\$100 at both landing sites and N\$150 at the Katima Mulilo market.

Table 2 presents a simple 26 days a month calculation of income per cooler (assuming Sundays are off days) both at the landing sites and at the Katima Mulilo fish market. This may be for one person and only if he or she sells one cooler per day.

Table 2: Monthly income per cooler at Katima Mulilo market and landing sites

	Muyako	Lusu	KM Market	Profit of selling at KM market from Muyako	Profit of selling at KM market from Lusu
Coolers' Size	Price in N\$	Price in N\$	Price in N\$	N\$	N\$
Large	10400	9100	13000	2600	3900
Medium	5200	3900	7800	2600	3900
Small	2600	2600	3900	1300	1300

KM = Katima Mulilo

Further analysis based on kg/coolers show that fish in smaller coolers are more expensive than in large and medium coolers. On average a customer pays N\$ 7.50/kg for a large cooler, N\$8.10 for medium and N\$9.10 for the smaller cooler. Although the community is satisfied with the benefits from the fish, their price is very low compared to fish harvested from aquaculture by the Ministry of Fisheries and Marine Resources. The Ministry sells at N\$20/kg. The difference in price is the result of the following: (a) harvesting by MFMR is planned in advance and they usually sell to workers or community members. (b) there is a cold storage facility thus no hurry for sale; and (c) the harvest is not large. Subsistence fishers, however, are in immediate need of money and have no cooling facilities to keep the product. Supply and demand is the key factor in determining price.

Another aspect one needs to keep in mind is the cost involved to farm with fish, compared to the very little capital input when harvesting natural water bodies.

With regard to benefits accruing from fishing, Namibians are able to do business with neighbouring Zambians and thus the fishery at Muyako not only benefit Namibians, but also our neighbouring countries.

4.7 Most Section of the Community involved in Fishing

Fisheries are integral to the livelihoods of the Caprivians both men and women are involved in this business at Muyako. Men mainly play their role in fish harvesting whereas women are more involved in the sales thereof. There are also, however, women who owns net and hire men to fish for them, thus they are also involved in the harvesting process. Most of the fish traders at the open market are women. Children under 18 years especially boys are not allowed to go fishing, but girls and young women are allowed to sell fish at the Katima Mulilo market.

4.8 Nationality of Fishers

According to the Inland Fisheries Resources Act of 2003, only Namibian citizens or permanent residents over 18 can register gill nets in Namibia, thus if one does not meet the above requirement fishing in Namibian fresh waters is not allowed.

Figure 5 shows the status or nationality of fishers at the two harbours at Muyako village. The trend is similar irrespective of landing sites, with one third of fishers non-Namibians.

Namibians are reported to hire foreigners to fish for them, especially Zambians, because of their fishing knowledge and skills. Usually an agreement reached between a non-Namibian fisher and Namibian fisher or Namibian net owner whereby he fishes four days for the Namibian and three days for himself. The situation was different at Lusu; according to people we spoke to it was claimed that virtually all fishers there were non-Namibians.

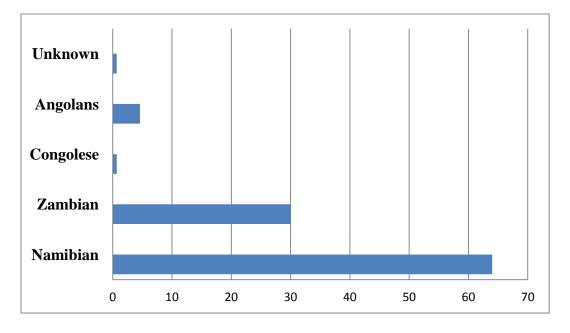


Figure 5: Nationality of fishers at both at Shamahuka and MFMR office harbour at Muyako.

Ninety percent of fish traders are of foreign origin (Figure 5), but about 10% of fish traders are Namibians and are selling fish outside Namibia.

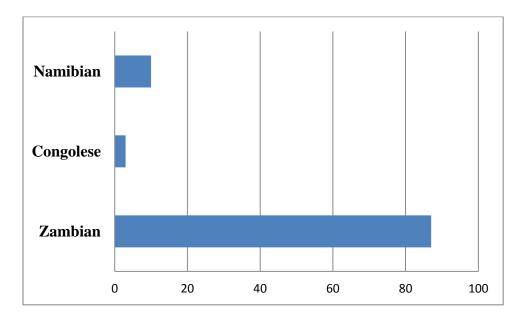


Figure 5: Nationality of fish traders at Shamahuka harbor

4.9 Selective Fishing

The author's observations indicate that there is no selective fishing apart from size control. No unused or spoiled fish were seen at the harbour although there were some discarded guts and abundant scales. Observations suggest that the committee, with the support of MFMR fisheries inspectors enforces the required mesh size of the gill nets of 3.5 inch as very few undersize fish were seen.

4.10 Marketing of Fish

Most fish from Lake Liambezi is being sold at Kasumbelesa on the Zambian border with DRC (Figure 6). These fish are split, salted and dried at the landing sites by non-Namibian traders or at home by Namibian fish traders and loaded in the trucks (Figure 7). The customers at Kasumbelasa border are Congolese and prefer dried and salted fish. They come from Luvumbashe in Katanga province and after buying the fish at the border they go to sell at the Njenya local maket, in Katanga province. Some go to sell their fish at the Kasai province in DRC.

Zambia seems to be the biggest market for fish but there is also substantial sale of fish locally at Katima Mulilo open market, where many locals buy fish for relish daily. There is potential to target other Namibian markets, especially Windhoek, if cold storage facilities were available.

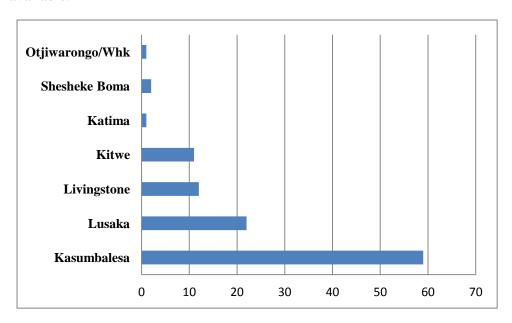
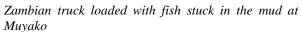


Figure 6: Places where fish are sold







Namibian bakkie ready to take the fish to Zambia through Sesheke border post

Figure 7: Fish in transit to Zambia.

4.11 Community Needs

Young institutions such as the Muyako Fisheries Committee need suport. The community and the committee was asked to indicate what kind of support they need to help them fulfill their resource control and management needs. Their responses were as follows:

- Full authority from the government to manage their fisheries
- Life Jackets
- Boats
- Gill Nets
- Improved Market facilities (cold storage)
- Scale

The community felt that it would be in their interest to be given full control of their resource because it is what their livelihoods depend upon.

According to the community, the Ministry of Fisheries and Marine Resources should make nets available for people to buy. At present people buy nets in Zambia. The community felt that other institutions such as NGOs and government agencies could help them with their needs.

4.12 Community collaboration with regard to resource management

There are several communities along the lake under different khutas hence collaboration is needed with regard to resource management. The major fishing villages are Muyako, Masokotwane, Lusu and Kwena. At present there is no organised collaboration between the different communities and this is needed especially if they want some areas to be declared protected areas. One of the fundamental aspects that needs to be addressed when it comes to collaborative management is, in the case of Muyako, the issue of tribal politics. This issue needs to be dealt with thoroughly head-on, because it is essential that all community members have the same understanding why it is important to manage their resource.

At present, only the Muyako and to a lesser extent Lusu areas of Lake Liambezi are under organised management.

4.13. Stakeholders

There are several stakeholders in the fisheries at the Muyako villages. These includes

- Traditional Authority
- Muyako Fishing Committee
- Community
- Ministry of Fisheries and Marine Resources
- Fishers (both local and foreign)
- Fish Traders (both local and foreign)
- Salambala Conservancy

- Ministry Home Affairs and Immigration
- Caprivi Regional Council

4.14. Stakeholders' Representation on the MFC

On the above list, there are some stakeholders that are not represented on the committee. These include the following:

- Ministry of Fisheries and Marine Resources
- Ministry of Home Affairs and Immigration
- Foreign Fish Traders
- Caprivi Regional Council

Although there is no representative of MFMR on the MFC, however, the committee emphasised that they do work very closely with the fishery ministry. Though this might be the case it is crucial for the MFMR to have a representative with observer status on the committee. The MHA&I should also have "observer" status to advise on cross border trade issues. The other institution of importance to be available to advise the MFC when necessary is the Caprivi Regional Council, which issues fishing net licences. Fish traders are strong business partners and it will be good to have them on board so that they articulate their concerns. Stakeholders such as TA, conservancy, local fishers and fish traders and women in general are well represented on the committee.

5. Conclusion

The MFC was established in 2009 with the purpose of controlling and managing the fish harvest around the Muyako Village along Lake Liambezi. The current committee is a new committee elected in February 2011, after claims by the community members that the old committee was ineffective. However, concerns are also surfacing that the new committee is also ineffective.

Fishing is integral to the communities of Caprivi Region and communities are willing to manage their own resources. One third of the fishers at Muyako are foreigners and 90% of fish traders are non-Namibians. Although fish are being consumed locally there is a substantial amount of fish being exported especially to Zambia with a small levy charged by the Traditional Authority.

With regard to needs, the communities are in need of full ownership from the government to control their resources as well as some equipment such as life jackets and boats to ensure their effective monitoring of fishing activities along the lake. There is no collaborative management between the communities living along the lake.

There are several stakeholders involved in the management of fisheries in Caprivi and it might be a challenge to include all of them in the committee.

6. Recommendation

- Namibia is noted for its Community Based Natural Resources Management model, especially the conservancies. It is against this background that the committee needs to learn from the Salambala conservancy within which Muyako falls as to how they manage their affairs. The committee particularly needs advice on the drafting of its own constitution to indicate the terms of office bearers, committee meetings and community feedback meetings.
- Although there seems to be some problems between the committee and some community members it is pleasing to note that the community started itself to complement government effort to control and manage their resources. Therefore, this effort needs to be encouraged and the community needs support to realise its goal. Government and its development partners are urged to help this initiative where possible.
- There is a need to have a proper recording system to record all fish leaving the country. Namibia Nature Foundation and the Ministry of Fisheries and Marine Resources started a recording system that needs to be developed further.
- There is a need to have a standard levy charged to non-Namibian fishers agreed by TA and MFMR. The community through its committee can decide on fines.
- The MFMR should emulate the Ministry of Agriculture Water and Forestry and create cold storages facilities. The provision of cold storage may help to reduce over harvesting of fish as no spoiled fish will be thrown away and thus fishers may not fish every day.
- Some of the stakeholders regarded crucial in the management of the fish resource should have "observer" status at committee meetings, e.g Regional Council, Ministry of Fisheries and Marine resources and Ministry of Home Affairs and Immigration.

7. References

- **1. FAO, 2000**. State of world fisheries and aquaculture, Rome, FAO. (WWW document). URL: http://www.fao.org/DOCREP/003/x8002e
- **2. Jones, T.B. 1996**. Institutional relationships, capacity and sustainability: lessons learned from a community-based conservation project eastern Tsumkwe District, Namibia. Windhoek, Ministry of Environment and Tourism, Research discussion paper No. 11: 43 pp.
- **3. Ministry of Fisheries and Marine Resources, 1995.** White paper on Responsible Management of Inland Fisheries of Namibia. Windhoek, Ministry of Fisheries and Marine Resource 52 pp.
- **4. Ministry of Fisheries and Marine Resources, 2003.** Commencement of the inland fisheries Resources Act, 2003 (Act No. 1 of 2003) Windhoek, Ministry of Fisheries and Marine Resource, 16 pp.
- **5. Ministry of Fisheries and Marine Resources, 2004.** Designation of persons to perform certain functions in terms of the inland fisheries resources Act 2003 Windhoek, Ministry of Fisheries and Marine Resource, 14 pp
- **6. Ministry of Fisheries and Marine Resources, 2009.** Annual Report 1999. Windhoek, Ministry of Fisheries and Marine Resource, 41 pp
- Naesje, T.F 1999. Scientific and management Advisor in developing countries.
 Trondheim, NINA. (WWW document).
- **8. Pomeroy, R.S. 1995.** Community-based and co-management institutions for sustainable coastal fishery management in Southeast Asia, Ocean and Coastal Management, Vol. 27, No. 3, Pp. 143 162.
- **9. Shapi, M.K. 2002.** Local perspectives on inland fisheries in Kavango: A socioeconomic and ecological approach, MSc. Thesis, Agricultural University of Norway, Aas.
- 10. **Tvedten, I.** *et al.*, **1995.** Freshwater fisheries and fish management in Namibia. Windhoek, Social Sciences Division of the University of Namibia, 163 pp.

8. Appendix

Appendix 1: List of participants at the community meeting 17 December 2011

Name	Capacity	
Henry Sinvula	Honourable 1 st Induna of Muyako	
B. Sitali	Honourable Induna of Muyako	
R.B. Matiti	Chairperson, Muyako VDC	
David Saul	Community Member	
Daniel Shavilo	Community Member	
Dominic Rutanzi	Community Member	
George Mukonga	Induna	
Davison Mahundu	Induna	
MaibaSaisai	Senior Fishery Research Technician	
TrodewellMwiti	Induna	
SimwanzaChristoph	MuyakoSubKhuta - Secretary	
PettrosLukubwe	Induna	
MekiMeki	Induna	
Patrick Matengu	Muyako VDC tracty	
Jameson Lwamukwabala	Community Member	
Tebuflo Frances	Community Member	
Mrs TebuhoJoice	Muyako VDC Secretary	
GeofferySimasiku	MuyakoLiambezi Fishing Committee-	
	Secretary	
Matengu Denes	Community Member	
SimasikuKabuna	MuyakoLiambezi Fishing Committee- C.	
	Member	
Lubembo Regina	MuyakoLiambezi Fishing Committee- C.	
	Member	
Mahoshi Esther	Community Member	
Osbert Simataa		
Sibitwani Chuma	Community Member	
Roda	Community Member	
KolokweDigo	Community Member	
Simasiku Charles	Community Member	
ChrispenSitali	Community Member	

Appendix 2: Attendants of MuyakoLiambezi Fishing Committee Meeting December 2011

Name	Capacity	
BornwellSinvula	Chairperson	
GeofferySimasiku	Secretary	
Regina Sifu	Ordinary member	
SimasikuKabuna	Ordinary member	
Frances Sitwala	Vice secretary	
AdellSibitwane	Vice Treasurer	
Moses Kabuku	MuyakoLiambezi Fishing Committee-	
	Former Chairperson	

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Appendix 3: Individual persons contacted

Name	Capacity
Morgan Saisai	Senior Fishery Research Technician
Bernard Lilungwe	Acting Chief - Customs
Sandra SikopoSimalumba	Fish net owner and fish trader
LikezoTheya	Fish packer
Edward Mataba	Chairperson – Lusu Fishing committee
Ben Mwendako	Fisher