

PROJECT REPORT | 1970

Assessing Migration and Mobility Patterns, Access to Health Services and Vulnerabilities of Female Fish Traders in the Kafue Flats, Zambia

December 2008 • Research Design Report

Lungu, A. • Hüsken, S.M.C.



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Fisheries and HIV/AIDS in Africa: Investing in Sustainable Solutions



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1. PROJECT SUMMARY

The WorldFish Center in Lusaka is implementing a regional collaborative programme entitled “Fisheries and HIV&AIDS in Africa; investing in sustainable solutions”. The programme is funded by the Swedish International Development Cooperation Agency (Sida) and the Norwegian Ministry of Foreign Affairs. Under the Zambia component, the technical focus area “Options for reducing vulnerability along the fish marketing chain” focuses on the Kafue Flats fishery in Zambia. This study aims to identify vulnerability factors affecting fisher folk and fish traders in the Kafue Flats, especially those that make them susceptible and vulnerable to HIV&AIDS. The study will provide the analytical basis for pilot interventions to reduce specific vulnerability factors and enhance livelihoods for fisher folk and fish traders in the Kafue Flats fishery. This report describes the methodologies and approaches used for the study in the Kafue Flats fishery, and how the findings and analyses will be used for the further implementation and learning of the programme.

2. DESCRIPTION OF THE STUDY AREA

2.1 Background of the Kafue Flats

The Kafue Flats are located in the Southern part of Zambia along the Kafue River, which is one of the main tributaries of the Zambezi River flowing through Copperbelt, Central, Southern and Lusaka Provinces. Leaving the Copperbelt Province flowing south, the river enters low-lying savannah wetlands, covering a wide area of 6,500 square kilometres forming a floodplain called the Kafue Flats (WWF, 2004)¹. The natural ecosystem has been heavily influenced by cycles of floods and droughts, and the unique wetland landscape of grasslands, lagoons and reed beds supports a diversity of wildlife. The vast open floodplain of the Kafue River covers four districts of Southern Province, namely; Itezhi-tezhi, Namwala, Monze and Mazabuka, as well as part of Kafue district in Lusaka Province. The Kafue Flats have a total population of 801,796 people, with approximately 111,992 housing units. Mazabuka has the highest population of 203,219 people, followed by Monze with 163,578 people and Kafue with 150,217 people. Namwala and Itezhi-tezhi districts have the lowest populations with 82,810 and 43,111 respectively (CSO, 2003)².

Transport and road infrastructure are very poor over much of the area, resulting in geographical isolation of people in many areas within the Kafue Flats, especially in terms of basic service provision including health and education. Many of the fishing camps in the Kafue Flats are officially classified by government departments as ‘hard-to-reach’ areas. The Kafue Flats area includes protected areas – a system of National Parks and Game Management Areas; there are three main National Parks in the Kafue Flats namely: Lochinvar, Blue Lagoon and the Kafue Flats National Park. Much of the current fishing activities in the area are concentrated within or just outside the Lochinvar National Park, bordering with Chunga lagoon (see Map 1: Kafue Flats). The Department of Fisheries (DoF) regulates fishing activities in all fisheries in Zambia through legislation and activities implemented by staff at national, provincial and district levels.

2.2 The economy and fishing activities in the Kafue Flats

The Kafue Flats are important to Zambia because of the valuable commercial and agricultural production activities taking place in the area. Part of Zambia’s electricity is generated from the dams along the Kafue River, and the river is also a major source of

¹ World Wildlife Fund (WWF) 2004. Study report on the role of the Kafue Flats fishery in sustaining the socio-economic livelihoods of the local communities. Kafue River Basin Dialogue on Water, Food and Environment Project. WWF Zambia / University of Zambia (UNZA).

² Zambia Central Statistical Office, Summary Report: 2000 Census of Population and Housing, Lusaka, Zambia, Nov 2003.

drinking water for both humans and animals. The vastness of the floodplains makes it an essential area for commercial farming and industrial production. Many industries are located in Mazabuka and Kafue districts. Traditionally, the majority of people of the Kafue Flats earn a living from nature through cattle herding, fishing and small-scale agriculture. In recent years, many have been employed in the sugar plantations in Mazabuka as seasonal cane cutters. The sugar plantations rely to a large extent on the regular flooding of the plains that also improves the quality of grass for grazing cattle.

The current population movements into the area follow the increase in fishing and the improved markets for fish and fish products. When the rainy season starts, the tributaries that are dry in the dry season get water from their catchment areas and from the Kafue river with its rising levels resulting in flooding. This is the period marked by government intervention of a three months temporary fish-ban from 1st December to the end of February every year. For those who depend on fishing alone, many find it difficult to survive during the period of the fish ban. While many fisher folk resorts to small-scale subsistence farming, the area often experiences severe floods during the rainy season, when a lot of agricultural produce is washed away, resulting in severe hunger during and after the rainy season. Around March - April the water recedes and the flats become dry again. During this period, fishing is characterised by migration of fishermen and fish traders into temporary shelters forming temporary fishing camps. Other fishing camps are permanent, depending on the floods and water recessions. Concentration of fish camps also depends on locations where fish catches are most plentiful. However, the movement of fish mostly determines the movement of fishers from one place to the other. For example, immediately after the closed season when water recedes, fish move from shallow grounds to deeper waters where they can find safety. By its nature, small-scale fishing involves mobility by both fishermen and fish traders. As fishermen have to chase the fish, this often compels them to move to other parts of the fishery or landing sites. Similarly, traders have to go to various fishing camps in order to obtain their supplies of fish from the fishermen.

Health service delivery in the Kafue Flats is very poor; people from permanent and temporary fishing communities have to travel several kilometres by boat and on foot to the nearest clinic. Drinking water and sanitation infrastructures are very poor, if not lacking, in most of the fishing camps. Poor health and sanitation coupled with mobility and easy availability of cash puts both fishers and fish traders at high risk of contracting diseases including HIV&AIDS, diarrhoea, dysentery, cholera and malaria.

2.3 HIV susceptibility and vulnerability among fisher folk

Little is currently known about the impacts of HIV and AIDS on the fisheries sector in Zambia, but growing evidence from other countries in Africa suggests that fisher folk and fish traders are being severely affected by the disease. Several case studies have documented that fisher folk are highly susceptible and vulnerable to HIV&AIDS³. Factors that make fisher folk vulnerable to HIV include high levels of mobility and migration, access to cash incomes within a broader context of poverty, long periods of time spent away from home, demographic profiles of fisher folk, availability of commercial and transactional sex in fishing ports and lakes, and high levels of drug and alcohol abuse.⁴ Women who earn their living directly and indirectly from fisheries, and who often move into fishing communities for economic reasons, are particularly at risk of HIV infection due to their social and economic vulnerability.

Most of these risk factors are likely to be relevant in the Kafue Flats, but the question is: which factors are most important in the Kafue Flats, how exactly do these factors manifest themselves, and which segments of the population are affected in which ways. These

³ Kissling, E., Allison, E.H., Seeley, J.A., Russell, S., Bachmann, M., Musgrave, S.D., Heck, S., (2005), *Fisherfolk are among those most at risk to HIV: a cross-country comparison of estimated prevalence and numbers infected among groups at risk*. *AIDS* 19: 1939-1946.

⁴ Gordon, A., (2005). *HIV/AIDS in the fisheries sector in Africa*. WorldFish Center, Cairo.

specific conditions have not yet been examined in the Kafue Flats, apart from some studies on transactional sex⁵. Moving beyond generalizations and understanding the specifics of HIV&AIDS vulnerability is essential for isolating risk factors and devising responses that reduce their impact.

3. RESEARCH DESIGN

3.1 Technical focus

The overall aim of this study is to understand migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats, Zambia. To tackle this research subject, the following research questions are central to this study:

- What are the migration and mobility patterns of people residing and trading in the Kafue Flats?
- How do migration and mobility affect people's access to health services in the Kafue Flats?
- What are the key HIV&AIDS risk factors for female fish traders in the Kafue Flats?
- What business based innovations might reduce their vulnerability to some of these risk factors?

Through literature review, Focus Group Discussions (FGDs), interviews, questionnaires, informal discussions and observations, this study is documenting and analyzing the variety of factors contributing to fisher folk and fish traders' vulnerability to HIV&AIDS in the Kafue Flats in Zambia. Insights into these factors of influence will inform sustainable business-based interventions to reduce vulnerability and enhance fish traders' livelihoods.

3.2 Site selection criteria

The common language spoken in the Kafue Flats is Tonga, one of the seven official local languages in Zambia. The Kafue Flats are home to a variety of ethnic groups, some of whom, including the Tonga, Ila, Batwa and Balundwe people, are known to have inhabited the Kafue Flats for centuries, practicing mainly fishing and small-scale agriculture. The Tonga are considered the earliest settlers in this area, although other ethnic groups, including the Bemba and Lozi from Western and Northern Zambia, as well as people from Zimbabwe and DRC, have flocked to the Kafue Flats in search of settlement and employment. These migrants, especially the Bemba and Lozi, increased fishing and trading activities in the Kafue Flats. However, this study does not use ethnicity as differentiating factor; the majority of respondents from both Namalyo and Nyimba fishing camps have been selected based on their profession and livelihood.

There are at least 21 chieftaincies in the Kafue Flats. The study focuses partly on the Southern part of the Kafue Flats, specifically the Chiefdoms of Mwanachingwala, Choongo, Nalubamba and Hamusonde. Across the Kafue River in the North, the study is purposively focusing on the extremely remote Nyimba fishing camp for its unique demographic set-up and various businesses besides fishing and fish trade. In the southern part of the Kafue River the study is focusing on the more accessible Namalyo fishing community.

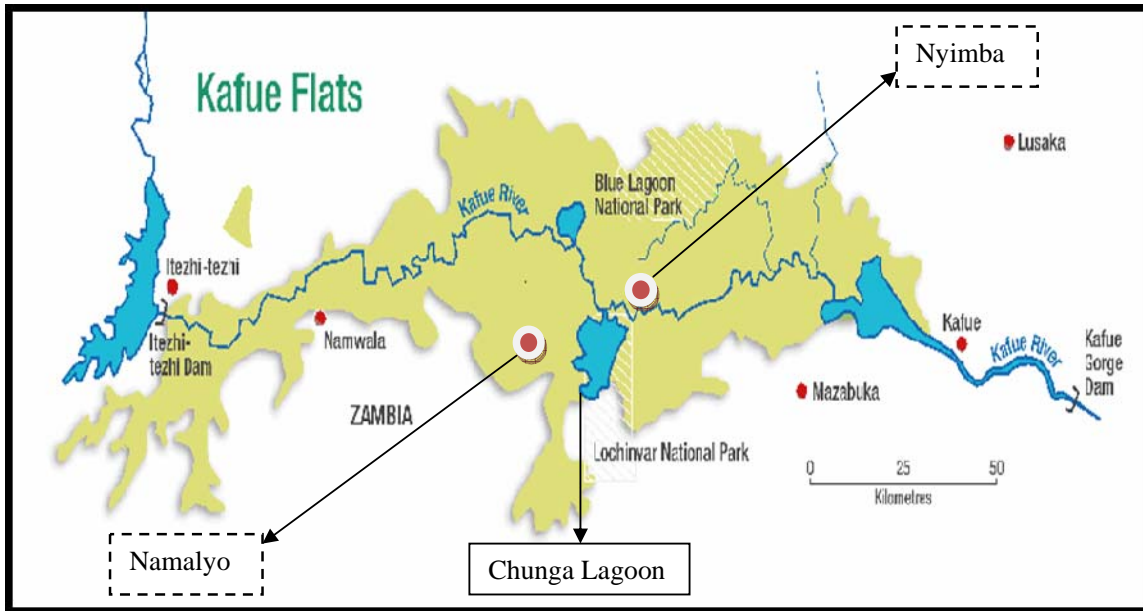
The study sites, Nyimba and Namalyo fishing communities, were selected through comprehensive discussions with the Chiefs and other key stakeholders, and based on WorldFish Center research experience in the area. Most importantly, the Kafue Flats are a fishery that is relatively close to Lusaka, thus attractive to fish traders. Criteria for selection include location, economy, scale of fishing activities and proximity to services (see Annex 1 for detailed selection criteria).

⁵ Béné, C., & Merten, S., (2008). *Women and Fish-for-Sex: Transactional sex, HIV/AIDS and gender in African fisheries. World Development.* 36 (5): 875-899.

Both Nyimba and Namalyo fishing community are inhabited mostly by the Tonga and Ila, the dominant ethnic groups, as well as the Batwa, Balundwe, Lozi and Bemba. These sites represent two main types of settlement in the Zambian fisheries: a highly concentrated and permanent fishing community (Nyimba), and a seasonal flood plain fishing community (Namalyo) where high levels of migration and mobility occur. Lessons and findings from these two types of fishing communities can thus be applied in most fisheries contexts in Zambia.

Nyimba fishing camp has quickly expanded over the last few years and has developed into a permanent fishing settlement, receiving many migrant fishers and fish traders, up to approximately 3000 people⁶. Fish traders in Nyimba fishing camp come from different places within and outside Zambia and spend most of the year in the camp. This area is close to the Lochinvar National Park and the Chunga Lagoon, in the frontier zones of the Chiefdoms Mwanachingwala, Choongo, Hamusonde and Nalubamba. Nyimba fishing camp is situated on the Northern side of the Kafue River (see also Map 1 below), comprising a long stretch of linear housing units made up of a variety of building materials ranging from blocks, mud, sticks and dry stalks covered by thatched and corrugated iron sheets. There are a few smaller fishing camps around Nyimba (including Nakachele, Banachiwembwe, Chitakataka, and Mafubu camp) that are depending on the market and trade function of Nyimba. Migrant fish traders usually settle in Nyimba, but frequent the smaller camps to purchase fish. The processing of this fish is done in Nyimba, from where the fish is being transported to markets outside the Kafue Flats.

Map 1: Kafue Flats.



Namalyo fishing camp, like Nyimba, offers a good and central location for the field study. From March to November, when water recedes, the camp receives a lot of migrant fishers and fish traders (female as well as some male fish traders) from different places in Zambia, as well as from neighbouring countries Zimbabwe, Botswana and the Democratic Republic of Congo (DRC). Fishers from surrounding fishing camps (including Manga, Nswilile, Likeng'a, Nakasale and Nankumba camp) find their way to the larger Namalyo fishing camp for trade and other economic activities. However, Namalyo fishing community is temporal and seasonal due to flooding.

⁶ Source: From informal discussion with Chief Hamusonde, key informant (17 Nov. 2008), and physical observation by the consultant (25 Nov 2008).

When flooding begins at the onset of the rainy season around December, people go back to their places of origin or permanent settlements. Local fishers, many with their families, stay within the game management areas where they have established two small permanent settlements situated on small upland areas at least one and half kilometres away from Namalyo. These permanent settlements are characterised by ethnic composition; the Tonga, Ila, Batwa and the Balundwe, along with their tribal cousins the Lozi, live in one community, separated from the Bemba and the Nyanja speaking community in the other. Both settlements are surrounded by water when flooding peaks during the rainy season. Since it is illegal to farm in the game management areas, many local villagers return to the main villages during the period of flooding or make temporary shelters outside the game management areas where they practice subsistence farming for household food security.

4. RESEARCH METHODOLOGY

4.1 Rationale for adopting a quantitative – qualitative approach

The methodology in this study is a combination of quantitative and qualitative methods of data collection to enable triangulation of findings and thus provide more reliable data in understanding the risk factors influencing female fish traders' vulnerability to HIV&AIDS in the Kafue Flats fishery. In order to address the specific research questions mentioned above, quantitative research methodologies will focus on the mobility and migration patterns and access to health care and other services influencing fisher folk vulnerability to HIV&AIDS. However, in order to capture the more difficult to measure aspects of HIV&AIDS vulnerabilities such as perceived knowledge base, HIV risks, and behaviour of fisher folk, qualitative methods are applied additionally. The combination of methods used in this study include:

- Direct observations (narratives and field notes);
- Semi-structured and open interviews with key informants;
- Focus Group Discussions (FGDs) with selected target groups;
- Questionnaires.

For each research question, thematic areas have been identified, with specific interview questions, to be asked during open or semi-structured interviews and FGDs. Quantitative data on the same thematic areas will be gathered through structured questionnaires. Through in-depth qualitative data collection, a deeper sense of the participants' "life experiences" can be established; the emphasis in this data collection method is based on experiences of the participants and on their opinions and perceptions about themselves, other people, and their environment. The research team conducted interviews with various people from the target fishing communities (female fish traders, fishermen and fish processors) and individual key informants, including Chiefs, headmen, fish camp chairmen and their assistants, and government officials from Health and Fisheries.

The designed interview and FGD questions were piloted in the target communities, using a sample of local female fish traders, and adapted where necessary. Additionally, informal interviews, field notes and observations made by the researchers and data collectors are included to contribute to a complete analysis of the situation of the selected target groups in the Kafue Flats. The primary data collected will be supplemented by secondary data from institutions such as the Zambia Central Statistical Office and relevant line ministries. This data includes fisheries frame surveys, demographic and social economic surveys, and household surveys of the districts comprising the Kafue Flats fishery.

4.2 Sampling Design

To meet the ethical obligations for research, the study size must be adequate and appropriate; large enough to be able to reflect a generalized picture of the findings. A total of

400 people has been targeted for this study; from each of the two selected study sites (Nyimba and Namalyo) the researcher draws a sample of 200 people, both men and women. The sample distribution for the two selected sites is illustrated in Annex 2. An equal number of women and men in the FGDs and interviews has been aimed at where possible, to ensure gender balance.

Participants of the FGDs in the preliminary research for 2008 were selected with the help of the fishing camp chairman and his deputy and included fish traders (male and female), fishermen and a few community members who reside in the fishing camp. Informed consent was obtained from all participants and the discussions were held in a neutral place without any interference from outsiders. People with authority such as chiefs, headmen and camp chairmen were not allowed to participate in the FGDs to avoid them to influence the discussions or views of the FGD participants (fishers, fish traders and community members). Participants were willing to talk to the research team and the mixed FGD did not involve people who had already taken part in the other two FGDs. The purpose of the mixed FGD was to capture gender differences in the responses, to facilitate dialogue between the sexes and to get a different dimension of responses from people who would hear the questions for the first time in the discussion rather than repeating questions with people who had already participated in a FGD. As a matter of confidentiality, all FGD participants were asked not to share with outsiders what was discussed.

4.3 Research team and research time table

The research team conducting the field study constitutes experienced local data collectors. This team is led and managed by a research team leader from WorldFish Center Zambia, Mr. Alphart Lungu, with specialist inputs from Mrs. Saskia Husken and Dr. Simon Heck, as shown in the table below.

Project research team

| Areas of research focus | Research team | | | | | Specialist inputs | |
|------------------------------------|---------------|----------------|-------------------|----------------|----------------------|-----------------------|-----------------------|
| | Full name/s | Winnie Kazoka | Defent Shikapande | Cosmus Holo | Alphart Lungu | Saskia Husken | Simon Heck |
| | Role | Data collector | Data collector | Data collector | Research team leader | Programme Coordinator | Senior Policy Advisor |
| Mobility & migration | | x | x | x | x | x | x |
| Health access and other services | | x | x | x | x | x | x |
| Vulnerability assessment | | x | x | x | x | x | x |
| Options for reducing vulnerability | | | | | x | x | x |
| Policy | | | | | | x | x |

The first phase of data collection (end 2008) comprised of three local data collectors and their roles included; to facilitate the FGDs, to observe and to take notes during the FGDs, and to manage the recording equipment while the team leader was interviewing. The three data collectors reside in or near the Kafue Flats fishery, have previous research experience, are competent in English and the local languages spoken in the Kafue Flats, and have a

sound understanding of the culture of the people interviewed. The data collectors' team for 2009 will include an additional female data collector, so that the team will constitute of two males and two females, whose roles will vary depending on the respondents' sex. For FGDs involving women, both female data collectors will participate as note-taker, interviewer, or translator. The research team leader will be in charge of conducting the FGDs if capable of speaking the language of the respondents. Otherwise, one of the data collectors will translate. For the mixed FGDs involving males and females, a male and a female data collector will assist as interviewer and note-taker.

Terms of references were drawn up for the data collectors, outlining the scope of the project and their expected roles and outputs (see Annex 3). Besides assisting in the FGDs, the data collectors will be administering structured questionnaires and hold one-on-one interviews with other purposively selected informants. Bicycles have been provided to the data collectors to facilitate their transport for the purpose of the study, which involves reaching fisher folk and fish traders in remote fishing communities. The bicycles remain the property of the WorldFish Center, based on a signed agreement with each data collector.

Timetable of the study

| Activity | Date | Status of the study | Output |
|---|---|------------------------------------|---|
| Literature review on migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats Fishery | Feb '09 | Desk based literature review | Overview from literature of the dynamics and different risk factors influencing female fish trader's vulnerability to HIV&AIDS in the Kafue Flats fishery in Zambia |
| Preliminary field trip to the Kafue Floodplains and recruitment of data collectors | 11 th - 12 th Sep '08 | Field work assessment and Planning | Confirmed research plan and selected data collectors. |
| Data collection phase I: (Qualitative data collection: Three (3) FGDs Namalyo fish camp) | 24 th - 27 th Nov '08 | Field work | Initial overview of migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats fishery |
| Data collection phase II: (Qualitative & quantitative data collection: Nyimba & Namalyo fishing communities) | April-May '09 | Field work | Further insights into migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats fishery |
| Data analysis and report writing | May-June '09 | Analysis | Analysis of vulnerability and risk factors for female fish traders in selected fishing camps in the Kafue Flats. |
| Inputs into the design of the pilot intervention. Document the pilot intervention. | May - July '09 | Analysis + monitoring | Using data from field-work and analysis to inform the design and implementation of the pilot intervention. |

Phase 2 of data collection will take place from April 2009 onwards, when the roads in the floodplains will be passable again. The main purpose of phase 1 was to pre-test the research tools and to collect initial qualitative data. Annex 2 outlines the phases of the research plan. In phase 2, the research team will hold additional interviews and focus group

discussions with a range of informants from the fishing communities, especially women fish mongers.

5. DATA ANALYSIS

5.1 Quantitative data analysis

Quantitative data collected through questionnaires and field notes will be coded and analysed using several combined methods of data analysis. The quantitative data gathered from questionnaires and from coded field notes will first be checked on credibility and accuracy. This requires carefully reviewing data points, such as questionnaire responses, checking for unintentional or un-useful responses. Methods for verification and analysis of the quantitative data include frequency tables, cross tabulation and measures of variability. The analysis process will utilise the statistical package SPSS, as well as Spreadsheet and Excel. Of great significance in the analysis is to quantify the different variables (e.g., mobility, migration, access to services), identifying factors of female fish traders' vulnerability to HIV through statistical description of results in order to understand patterns and relationships between specific factors of vulnerability.

5.2 Qualitative data analysis

The collected qualitative data, captured through a tape recorder, note taking and observation, will be analysed using content and grounded analysis methods. The two primary goals of FGD analysis are to: (a) reveal the important themes and their degree of emphasis that underlie participants' comments with regard to the research questions, and (b) to compare themes cutting across different types of participants. The recordings will be transcribed verbatim, providing referential adequacy. To ensure reliability of the transcription phase, a method of credibility checking will be adopted. This will involve the researcher to listen to and type the recordings as text. Therefore, to maximise the clarity of emerging themes, but without altering the verbatim text, square brackets will be used to provide meaning to any ambiguous phrases.

A model of data analysis recommended by both Thomas and Nelson (2001)⁷ and Biddle et al (2001)⁸ will be followed, involving all the researchers reading and re-reading the transcriptions and identifying phrases that exhibited insightful meaning as "raw data themes". Raw data themes will then be compared and contrasted into themes to tease out meaning from the vast amount of information collected. Common themes cutting across all the responses will be identified, compared, contrasted and triangulated among the interviews in order to distil patterns of ideas. The first groupings of themes will be referred to as "first-order themes". Next, the first-order themes will be thoroughly reviewed and grouped to provide the "Second-order themes". This process will continue until themes can no longer be grouped further. All data captured through semi-structured interviews will be thoroughly analysed to identify patterns and trends in responses to the research questions. The remaining themes will be labelled the "general dimension". The general dimension reflects the highest order themes that could be achieved from the data set. The final analysis will consist of the amalgamation of the major ideas and themes supported by verbatim extracts, some of which will be included in the text for the report as part of the narrative.

⁷ Thomas, J. R., & Nelson, J. K. (2001). *Research methods in physical activity (Fourth Edition)*. Champaign, IL: Human Kinetics.

⁸ Biddle, S. J. H., Markland, D., Gilbourne, D., Chatzisarantis, N. L. D. & Sparkes, A. (2001). *Research methods in sport and exercise psychology: Quantitative and qualitative issues*. *Journal of Sports Sciences*, 19, 777-809.

Throughout the course of qualitative analysis, the analyst will be asking the following questions:

- What patterns and common themes emerge from the responses? How do these patterns help to answer the broader research question/s?
- What interesting life stories emerge from the responses? How can these stories be analysed in light of the research?
- Do any of the patterns or findings suggest that additional data may need to be collected?
- Do the patterns that emerge corroborate the findings of any corresponding qualitative analyses that have been conducted in the Kafue Flats before? If not, what might explain these discrepancies?

6. USE OF STUDY FINDINGS

The analysis of qualitative and quantitative data will be done separately and results collated. It is envisaged that a combination of both qualitative and quantitative methods of data collection and analysis will help to triangulate results, uncover and explain inconsistencies and discrepancies that may arise from the raw data. Findings from both qualitative and quantitative analysis will eventually be combined to present a complete picture of the study sites.

This analysis, supported by a literature review on general vulnerability factors of fisher folk and fish traders, will result in recommendations for a business-based pilot intervention to address selected vulnerability factors among female fish traders and consequently enhance their livelihoods. The research team will play a role in the monitoring and documentation of this pilot intervention in the Kafue Flats, to be implemented by a selected NGO. The documented approach and impact will be used for policy influence and serve as an intervention model for up scaling to other fishing camps in the Kafue Flats and other fisheries in Zambia.

ANNEX 1: Site selection criteria

| SELECTION CRITERIA: | | | | | | | |
|-------------------------------------|---|-----------------------------|--|---|--|---|--|
| | Location: Rural or Urban | Scale of fishing | Economy: Fisheries/ Agriculture | Proximity to schools, health services and infrastructure | Ethnic composition of community | Fisher folk availability | Characteristics of community infrastructure |
| NYIMBA FISHING CAMP | Rural & Remote | Small & medium | Mainly fishing & Partly agriculture | <ul style="list-style-type: none"> • Schools: Very far • Hospital & Clinics: Very far • Major roads & Transport networks: Very far | Diverse | Available throughout the year but fishing activities come to a halt from December to March. | Permanent |
| NAMALYO FISHING CAMP | Rural | Small | Mainly fishing & Partly agriculture | <ul style="list-style-type: none"> • Schools: far • Hospital & Clinics: far • Major roads & Transport networks: far | Diverse | Unavailable from December to March | Temporal and seasonal |

ANNEX 2: Sample distribution in selected sites.

| Activity | Site | Participants | Interviewer | Duration for discussion |
|--|--|---|--|--|
| 3 FGDs (1 male FGD, 1 female FGD, 1 mixed FGD) | Nyimba fishing camp [Reserved for 2009 phase II schedule] | <ol style="list-style-type: none"> 1. At least 12 women (at least 75% should be migrant fish traders while 25% can be community members living in a fishing community). 2. At least 12 men (of these 75% should be fishermen while 25% may constitute migrant male fish mongers). 3. A combination of men and women. At least 12 participants (both fishers and women fish traders). | Researcher + Data Collector (note taking and interpretation of interview questions to the participants). | Each FGD is assigned between 45 and 60 minutes |
| 3 FGDs (1 male FGD, 1 female FGD, 1 mixed FGD) | Namalyo fishing camp [FGDs were conducted successfully as part of phase I schedule. For 2009 phase II: Structured, informal and individual interviews with key informants will be undertaken. Additionally, where there are gaps, follow up data will be commissioned in 2009] | <ol style="list-style-type: none"> 1. At least 12 women (at least 75% should be migrant fish traders while 25% can be community members living in a fishing community). 2. At least 12 men (of these 75% should be fishermen while 25% may constitute migrant male fish mongers). 3. A combination of men and women. At least 12 participants (both fishers and women fish traders). | Researcher + Data Collector (note taking and interpretation of interview questions to the participants). | Each FGD is assigned between 45 and 60 minutes |
| Structured interviews through questionnaires | Nyimba fishing camp and Namalyo fishing camp. | At least 164 people from each site are expected to complete the self administered questionnaire | Data collectors (monitored by the researcher) | Flexible depending on the interview |
| Interviews with key informants | (a). Nyimba fishing camp (b). Namalyo fishing camp | These include: Chiefs, headmen, fish camp chairmen and their deputy and other relevant stakeholders at local / district level. Additionally, key informants at provincial / national level will be interviewed. | Researcher | Flexible depending on the interview |

Lusaka, 14th November 2008.

Dear Mr. xxx ,

We are pleased to be working with you as data collector for the research and development activities in the Kafue Flats fishery in Zambia. This work is part of the Zambia component of the regional programme entitled “Fisheries and HIV&AIDS in Africa: Investing in Sustainable Solutions”, funded by the Swedish International Development Cooperation Agency (Sida) and Norwegian Ministry of Foreign Affairs. Your involvement in this project will be with the following terms and conditions.

Scope of work

You will be required to:

1. Assist in organizing and facilitating meetings with local communities in the selected research areas;
2. Translate and assist at the planned focus group discussions in the selected fishing camps;
3. Assist in the piloting of the questionnaires;
4. Perform any other duties that may be assigned to you by the research supervisor.

Fees and Expenses

You will be paid ZK xxx per full working day, which includes your fee and lunch allowance. During the period xxx, 2008, the research supervisor will agree with you on the number of days that your services are needed for the assigned tasks. Payment shall be made in cash upon timely and satisfactorily completion of assigned tasks for this period. For accounting purpose, you will fill and sign a time sheet with the research supervisor to keep track of your time spent on the assigned activities.

Insurance and Taxes

You will be required to arrange your own medical- and life insurance. The WorldFish Center will not assume responsibility for any insurance liability. This agreement is based on the understanding that The WorldFish Center will not withhold any taxes; therefore, you will be responsible for all applicable withholding and taxes.

Allowances and Perquisites

Under this agreement you will not be entitled to any other allowances, perquisites and benefits other than those stated in this letter.

OFFICE: WorldFish Center – Zambia Office- 8098 Dunduza Chisidza Crescent, Longacres, Lusaka, Zambia •
MAIL : PO Box 51287, Ridgeway, Lusaka, Zambia PHONE: + 260 211 257941/43 • EMAIL: i.malasha@cgiar.org





Reporting Responsibilities

Under the overall guidance of the Programme Coordinator of the Fisheries and HIV&AIDS programme, you will report directly to the research supervisor, Mr. Alphart Lungu.

Intellectual Property

All material and information provided to you by the WorldFish Center, and all information created in the course of your work in the Kafue Flats fishery is the intellectual property of The WorldFish Center and must be treated as confidential.

If you agree with the terms and conditions of this agreement, please sign in the space below and return a signed duplicate to us.

Yours sincerely,

Mrs. Saskia Hüsken

Programme Coordinator Fisheries and HIV&AIDS, WorldFish Center.

CC: Dr. Simon Heck, WorldFish Center.

In agreement to the above terms: _____

Date: _____

Name:

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