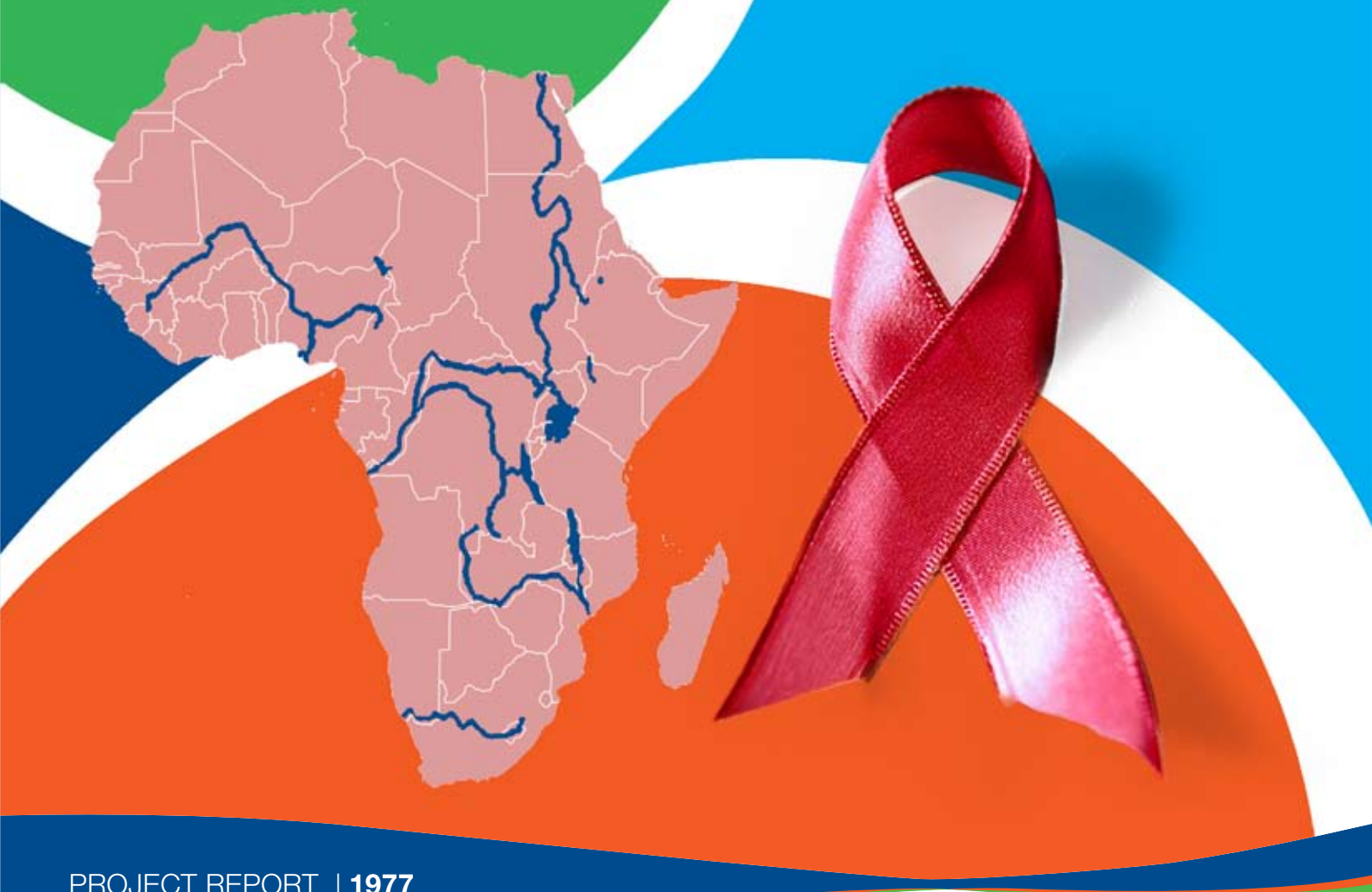

PROJECT REPORT | **1977**

Profiles of Project Activities by Technical Partners Under the Regional Programme *"Fisheries and HIV/AIDS: Investing in Sustainable Solutions"*.

Compilation Document Prepared for the First Policy Advisory Group Meeting in Lilongwe, Malawi • March 2009

Hüsken, S.M.C.

Sida
NORWEGIAN MINISTRY OF FOREIGN AFFAIRS
FAO FIAT PANIS
WorldFish CENTER

Profiles of project activities by technical partners under the regional programme "*Fisheries and HIV/AIDS: Investing in Sustainable Solutions*".

Compilation document prepared for the First Policy Advisory Group meeting, 24-26 March 2009, Lilongwe, Malawi.

Hüsken, S.M.C.

March 2009

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

This report was produced under the Regional Programme *"Fisheries and HIV/AIDS in Africa: Investing in Sustainable Solutions"* by the WorldFish Center and the Food and Agriculture Organization of the United Nations (FAO), with financial assistance from the Swedish International Development Cooperation Agency (Sida) and the Norwegian Ministry of Foreign Affairs.

This publication should be cited as:

Hüsken, S.M.C. (2009). Profiles of project activities by technical partners under the regional programme "*Fisheries and HIV/AIDS: Investing in Sustainable Solutions*". Compilation document prepared for the First Policy Advisory Group meeting, 24-26 March 2009, Lilongwe, Malawi. Regional Programme Fisheries and HIV/AIDS in Africa: Investing in Sustainable Solutions. The WorldFish Center. Project Report 1977.

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Cover design: Vizual Solution

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Introduction

In the response to poverty and HIV/AIDS in Africa there is an important role for fish and fisheries that support the livelihoods of millions of poor people on the continent. Small-scale fisheries in particular provide food and nutrition security, and generate economic opportunities for the poor throughout society, including those living with HIV/AIDS. In turn, good health among fisherfolk is a basic pillar of productive and sustainable fisheries that will deliver lasting development outcomes. On both sides of this equation, benefits are severely at risk, as per capita fish supply in sub-Saharan Africa is declining, and fisherfolk are among the populations most vulnerable to HIV/AIDS.

The WorldFish Center and the UN Food and Agriculture Organization (FAO) are currently implementing a regional programme entitled *Fisheries and HIV/AIDS in Africa: Investing in Sustainable Solutions*, to strengthen the capacity in the region to develop sustainable solutions to enhance the contributions of fish and fisheries to economic and human development. In particular, the programme is building a strategic response to HIV/AIDS in the fisheries sector that will generate benefits for vulnerable groups in wider society.

With financial support from the Swedish-Norwegian Regional Programme on HIV/AIDS in Africa, this programme is conducting research-for-development activities and implementing pilot interventions in selected fishing communities in eight countries in sub-Saharan Africa, namely Benin, Democratic Republic of Congo (DRC), Cameroon, Nigeria, Malawi, Mozambique, Uganda and Zambia. In all eight countries, three technical focus areas have been identified through national consultations:

1. Options for reducing vulnerability along the fish marketing chain;
2. Enhancing nutrition benefits from small scale aquaculture and fisheries;
3. Institutional change to increase investment in viable support options;

1. Options for reducing vulnerability along the fish marketing chain

By working through national and local partners, the programme is assessing key risk factors among highly vulnerable target groups, including female fish traders, migrant fisherfolk and youth, through surveys and participatory qualitative research. Based on insights from this research, programme partners are piloting business-based interventions that will address some of these risk factors such as lack of services in remote fishing camps and transactional sex in the context of fish marketing. These pilot interventions will generate viable business models and options for wider support to the fisheries sector. Cross-regional comparison and learning will enhance the synthesis of research findings and models, to inform policy and planning processes in fisheries and HIV/AIDS at local, national and regional level.

2. Enhancing nutrition benefits from small scale aquaculture and fisheries

In partnership with national nutrition research institutions and NGOs engaged in improving nutrition support and food security among People Living with HIV (PLHIV), the programme is identifying ways to enhance access to fish among PLHIV and to assess the specific health impact of fish consumption in the context of HIV/AIDS care and treatment. The objective is to develop recommendations for integrating fish into

targeted nutrition support to PLHIV, and to identify options for improving access to fish among small-holder farmers and urban poor vulnerable to HIV/AIDS.

3. Institutional change to increase investment in viable support options

The programme is working with regional, national and local institutions to improve the policy environment for up-take of technical recommendations that can reduce the impact of HIV/AIDS in and through the fisheries sector. This component includes analyses of institutional linkages between fisheries and health at various levels and policy dialogues and roundtables.

Policy Advisory Group (PAG)

The Programme has established a regional Policy Advisory Group to provide guidance on policy up-take of technical outcomes from programme activities. The First Meeting of the PAG will be held in Lilongwe, Malawi (24-26 March 2009) and will focus in particular on the socio-economic and institutional components. The Second Meeting of the PAG, focusing on food and nutrition security aspects and long-term benefits of the fisheries sector in HIV responses, is planned for early 2010.

Overview table: Activities in East and Southern Africa (coordinated by the WorldFish Center)

Technical focus area	Research-for-development activities	Geographical focus	Partners
Options for reducing vulnerability along the fish marketing chain	**A. Socio-economic assessments**		
	Assessment of vulnerabilities of female fish traders along fish marketing chain.	South East Arm of Lake Malawi (Malawi) and Cahora Bassa (Mozambique)	Chancellor College, University of Malawi - *Malawi*
	Assessment of mobility/migration and vulnerabilities of female fish traders along the fish marketing chain.	Kasenga, Katanga Province (DR Congo)	Centre Interdisciplinaire Pour Le Développement Et Education Permanente (CIDEP), Université Ouverte de Lubumbashi – *DRC*
		Mukono District, Lake Victoria (Uganda)	Department of Social Sciences, Makerere University – *Uganda*
	Assessment of mobility/migration, vulnerabilities of female fish traders along the fish marketing chain and health services provisioning.	Kafue Flats fishery (Zambia)	WorldFish Center - *Zambia*.
	B. Business-based innovations		
	"Fish Trader+": Business-based innovations by female fish traders to reduce vulnerability.	Mangochi (Malawi) and Cahora Bassa (Mozambique)	World Vision International – *Malawi and Mozambique*
		Kasenga, Katanga Province (DR Congo)	World Vision International - *DRC*
		Kafue Flats fishery (Zambia)	WorldFish Center and NGO (TBI) - *Zambia*
		Mukono District, Lake Victoria (Uganda)	NGO (TBI) – *Uganda*

Technical focus area	Research-for-development activities	Geographical focus	Partners
Enhancing nutrition benefits from small scale aquaculture and fisheries	Assessment of nutrition security impact of aquaculture among small-holder farmers affected by HIV/AIDS.	Ntchisi and Chingale farming communities (Malawi)	Bunda College, University of Malawi - *Malawi*
	Analysis of nutritional value of fish and fish products accessible to urban poor.	Urban markets in Lubumbashi (DR Congo)	Clinique Universitaire, Université de Lubumbashi – *DRC*
	Analysis of the effects of a fish diet on the nutritional status of People Living with HIV (PLHIV) and their response to ART.	PLHIV and urban poor in Lusaka (Zambia)	Kenneth Kaunda Children of Africa Foundation, and School of Agricultural Science, University of Zambia – *Zambia*
	Analysis of nutritive quality and post-harvest activities in 'low value' fish marketing chains.	Mukono District, Lake Victoria (Uganda)	Department of Food Science and Technology, Makerere University – *Uganda*
Institutional change to increase investment in viable support options	Development of monitoring indicators and alignment of fish data in national food security monitoring system.	National (Malawi)	Ministry of Agriculture and WorldFish Center - *Malawi*
	Development of by-laws by fishing communities and uptake at district and national policy level.	Kafue Flats fishery and national policy (Zambia)	WorldFish Center - *Zambia*
	Institutional analysis of capacity, opportunities and constraints for collaboration among key national agencies working on fisheries, HIV/AIDS and food security.	National (Uganda)	Uganda AIDS Commission - *Uganda*

Migration and Mobility of fisherfolk and fish traders in Kasenga region – Katanga Province, DRC.

1. Title of the project

Analysis of socio-economic characteristics and mobility of fisher folk and female fish traders in Kasenga region, Democratic Republic of Congo (DRC).

2. Implementing institution

Provincial Faculty of the Interdisciplinary Center for Development and Permanent Education (CIDEP), Open University, Lubumbashi, DRC.

3. Contact person

Professor Bienvenu Kalunga (*Provincial Dean of the Open University, Lubumbashi).*

4. Purpose of the project

The present project is aiming to:

- Analyse the socio-economic characteristics and mobility of fisher folk and female fish traders.
- Identify the vulnerability factors and causes of HIV-prevalence among fisherfolk and female fish traders.
- Propose entry points for a pilot project to reduce fisher folk and female fish traders' vulnerability to HIV/AIDS.

This research project is very important as Kasenga – Luapula – Mweru region is nowadays the most important supplier of fish to Lubumbashi markets. Ninety percent of fish traded in Lubumbashi comes from that region and fish represent 80% of nutritive consumption of Lubumbashi people, especially the urban poor.

5. Research questions

- What are the most important socio-economic characteristics of fisher folk and fish traders in Kasenga region?
- What are the mobility and migration patterns of fisherfolk and fish traders?
- What are the factors which influence the fisherfolk and fish traders' vulnerability to HIV/AIDS?

Based on the above research questions, recommendations will be made on how some of the vulnerability factors of fisher folk and fish traders can be reduced and how targeted interventions can improve the lives and the productivity of fisherfolk in Kasenga region.

6. Location of the study

This study is being implemented in Kasenga region, Katanga Province, DRC, and indirectly includes Mweru region in Luapula Province, Zambia.

The target groups include fisher folk, female fish traders, and local authorities involved in fisheries management and/or HIV/AIDS response.

7. Undertaken/ planned activities

The project is divided into two phases:

* Phase one : Lubumbashi
  - Literature review on fisheries and HIV/AIDS vulnerability in Katanga Province.
  - Inventory / mapping of fish markets in Lubumbashi;
  - Interviews with fish traders on their origin, the provenance of fish, the species and the process of procurement.
* Phase two: Kasenga – Lubumbashi fish market route
  - Analysis of the main fishing camps surrounding Kasenga (Kashobwe, Puiti, Nkole).
  - Interviews and focus group discussions with 380 fisher folk and 240 fish traders at Kasenga fish depots.
  - Interviews with truck drivers, shop owners, commercial sex workers, local authorities in Kasenga and surrounding fishing camps.

8. Methods used

For this study, methods used include review of literature and secondary data, structured interviews, informal questions to key informants, questionnaires, focus group discussions, sampling and observations.

9. Findings so far

Initial findings of the studies:

- 97% of fish traded in Lubumbashi markets are from Kasenga – Luapula – Mweru region.
- People recognize that fish traders (female) and fishers are among the groups as highest risk to HIV infection.
- 95% of fish traders in Lubumbashi markets and Kasenga region are female.
- 96% of fishers in Kashobwe, Puiti and Nkole fishing camps are single.
- There are no structures or institutions in Kasenga region working on HIV/AIDS sensitisation in fishing communities and female fish traders.

10. List of outputs

- *Report 1*: description of the fisheries sector in Katanga region (including production and commercialization of fish) and analysis of socio-economic characteristics of female fish traders in Kasenga (draft submitted January 2009).
- *Report 2*: analysis of socio-economic status of female fish traders in fishing camps around Kasenga, including insights into their relationships, motivation, perceptions, and access to health services (by end March 2009).
- *Final report and recommendations* for pilot intervention to reduce vulnerability of female fish traders along Kasenga – Lubumbashi fish market route (by end March 2009).

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Nutritional value of fish and fish products marketed at Lubumbashi fish markets, DRC.

1. Title of the project
Analyse de la valeur nutritionnelle des produits de pêche commercialisés aux marchés des poissons à Lubumbashi (République Démocratique du Congo - RDC).

2. Implementing institution
Clinique Universitaire, Université de Lubumbashi, Lubumbashi, RDC.

3. Contact person
Dr. Winnie Mujinga Ilunga (Nutritionniste, MPh).

4. Purpose of the project
- Déterminer les différents types des produits de pêches à Lubumbashi, et les catégoriser selon les classes sociales;
- Analyser les produits de pêches pour connaitre leurs valeurs nutritionnelles;
- Proposer différentes sortes des recettes pour une alimentation variée à base des produits de pêche.

De quoi s'agit-il :
Dresser la liste des poissons trouvés et vendus;
Ressortir la liste des poissons par ordre croissant d'importance économique (low values);
Classer les poissons par ordre décroissent de consommation et de disponibilité (les plus répandus, vendus et consommer);
Liste des poissons par ordre d'importance quantitative sur les marchés;
Présenter une carte avec localisation des marchés;
Présenter un guide photographique des différents types des poissons;
Présenter les résultats des analyses de laboratoire sur les valeurs nutritionnelles des types des poissons, et les discuter;
Présenter un guide des différentes sortes des recettes à base des produits de pêche pour une alimentation variée a proposé aux Personnes Vivantes avec le VIH/SIDA (PVV).

Pourquoi ce projet est important pour donner toute sa place aux produits des pêches, voir si oui ou non sur le plan nutritionnel les poissons se différent, ainsi nous allons avoir de projet de repeuplement des lacs et rivières.

5. Research questions
- Quelles sont les différentes catégories (pour pauvre et pour riches) de produits de pêche trouvés à Lubumbashi ?
- Quels sont les valeurs nutritionnelles des différents produits de pêche (par technique de conservation, transformation de poissons) sur les marchés de

poisson ? Comment les différentes techniques de transformation affectent la valeur nutritionnelle des produits de pêches ?

- Quelle alimentation à base de produit de pêche à la portée de toutes les bourses peut-on recommandée aux pauvres et spécialement aux PVV ?

6. Location of the study

Les marches des pêches et communes de Lubumbashi.

Les groupes cibles: vendeurs dans les marchés des poissons (place de choix aux vendeurs des poissons).

Les critères de sélection / caractéristiques, pour les marchés:

- Avoir 15 stands des poissons et 15 vendeurs présents au moins.
- Avoir une grande fréquence d'acheteurs (le renom d'un marché au prix convenable à toutes les bourses).

7. Undertaken / planned activities

- Revue documentaire,
- Visite des marchés,
- Enquête nutritionnelle
- Cartographie de Lubumbashi avec l'emplacement des marchés
- Photographie des types des poissons
- Analyse au laboratoire
- Elaboration d'un guide des recettes à base des poissons.

8. Methods used

Lecture, observation, interview, dessin digital, prise de photos, analyse au laboratoire, rédaction des recettes.

9. Findings so far

Liste des poissons par ordre croissant (du moins couteux au plus couteux):

N°	**Noms des poissons**	
	Noms vernaculaires	**Noms scientifiques**
1	Kashikisha	*Pellicotrissa*
2	Mapapa	*Pellanovlla miodon*
3	Malawi	*Pellanovlla miodon*
4	Kashobwe	*Pellanovlla miodon*
5	Kisense	*Pellicotrissa ou Pellanulacuneria*
6	Sardine	*Pellanula miodon*
7	Petit fumé	
8	Tukenge	*Tilapia sparmannii*
9	Kapolowe (frais)	*Tilapia macrochir*

10	Milonge (Mfutu)	*Ophiocephalus*
11	Ya tshuvi	*Pellanovlla miodon*
12	Misumari	*Stolotrissa tanganicae*
13	Makobo	*Serranochromis*
14	Tembwa	*Tylochromis*

10. List of outputs

- *Rapport* inclus une liste des espèces disponibles sur les marches urbains de Lubumbashi, différents types de poisson, indiquant les poissons les plus répandus, cartographie des marchés de poisson à Lubumbashi, guide photographique des différentes types de poisson / produits de pêche systématisé par ordre d'importance quantitatif sur les marchés de Lubumbashi.
- *Rapport* d'analyse et table de valeur bromatologique de catégorie des poissons trouvés sur le marché de Lubumbashi.
- *Rapport final de la présentation* durant l'atelier par World Vision - DRC, inclus les recommandations des autres partenaires.

***

Pilot intervention: Understanding and reducing vulnerability of women fish traders in Kasenga region, DRC.

Project title
Understanding and reducing vulnerability of women fish traders in Kasenga, DR Congo.

Implementing institution and contact person
World Vision International – DRC.
Contact person is Dr Flory Mononi, the National HIV&Public Health Coordinator.

World Vision is a Christian humanitarian organization dedicated to working with children, families, and their communities worldwide to reach their full potential by tackling the causes of poverty and injustice.

Brief description of the purpose of the activity
The project is located in Kasenga city, Katanga province in the South-East of the DRC near the border with Zambia. The aim of the project is to determine the vulnerability to HIV of women along the fish market chains and then to develop a pilot intervention that addresses the causes of these vulnerability factors.

Main research questions

- What business innovations can reduce key vulnerability factors among women fish traders?
- How can business interactions between women fish traders, fishers, wholesalers and other stakeholders be improved to reduce vulnerability?
- What further business opportunities can women fish traders realize to improve to improve access to HIV/AIDS related services and technologies?

Brief description of the project site
The project has two phases. During the first phase, WV contracted two consultants who conducted studies:

- The first consultant, Professor Kalunga Mawazo, the Dean of the CIDEP. CIDEP is a private university specialized in Social sciences. Professor Kalunga was responsible to carry out social studies in Kasenga and surrounding fish camps to determine:
  - The social and economic characteristics of fish traders in Kasenga;
  - The mobility modes of fish folks and the main roads of fish trade;
  - The factors that influence the vulnerability to HIV of women fish traders in Kasenga.
- The second consultant was Dr. Winnie Mujinga, Nutritionist and Master in Public Health, working for the School of Medicine, Lubumbashi University. She was responsible of carrying out a study on the fish market in Lubumbashi. Her role was to determine:

- The categories of fish consumed by the poor and those consumed by the rich;
- The nutrient values of fish the most consumed by the poor and those consumed by the rich, and how different processing techniques can affect the nutrient values;
- The categories of fish that can be recommended to the poor and specially those living with HIV and AIDS.

Target groups

The target groups for this study are women involved in fish marketing from the fish camps around Kasenga to the fish markets in Kasenga and Lubumbashi. The study will seek to understand what the main causes of the vulnerability to HIV are for these women and the way the project can address these vulnerabilities.

Activities undertaken and /or planned.

So far, following activities have been already undertaken:

- Literature review and key informants interviews;
- Fish markets map and physical inventory both in Lubumbashi and Kasenga;
- Rapid appraisal among women fish traders in Lubumbashi and in Kasenga;
- Determination of the social and demographic characteristics of fisher folk and their access to basic social services;
- Determination of the categories of fish sold at different markets in Lubumbashi and their provenance;
- Laboratory contracted for fish nutrient analysis.

In process:

- Collection and analysis of the nutrient values of various fish samples (of the most consumed fish types in Lubumbashi).

Planned activities:

- Submission of final reports on the mobility and the nutrition studies;
- Design of a pilot project that addresses the vulnerability of women fish traders, based on the studies.
- Planning workshop in Kasenga to share the findings of different studies with relevant stakeholders and plan for the pilot project.
- Implement the pilot project in Kasenga.

Methods used

The main methods used for this study are literature review, observations, social surveys, interviews, institutional mapping and laboratory fish nutrient analysis.

Initial findings from the studies

- 97% of fish sold in Lubumbashi market places are from Kasenga – Luapula – Mweru Region.
- Women fish traders are among the highest-risk group to HIV/AIDS.

- 95% of fish traders in Lubumbashi markets and Kasenga – Luapula – Mweru are women.
- 96% of fishers in fish camps around Kasenga are men and single.
- There is neither structure nor institution at Kasenga region working on the sensitization on HIV/AIDS for people involved in fisheries.

List of outputs

- Pilot intervention and monitoring plan (April ’09).
- Technical progress reports on pilot intervention (June’09, Sept.’09, Nov.’09)
- Final report on project implementation, including lesson learnt (Feb.’10).

***

Impact of mobility and migration on vulnerability in Uganda fisheries.

Title of the project
Analysis of the impacts of mobility and migration on vulnerability to HIV/AIDS of fishing communities in Mukono District, Uganda (Lake Victoria).

Implementing institution / contact person
Dr. Nite Tanzarn, Makerere University, Kampala, Uganda.

Overview of the project
The growing body of knowledge on fisheries shows that mobility is inherent amongst fisher folk and fish traders. Not only is mobility a potential driver of risky behaviour amongst fishing communities but it is also a major determinant of their vulnerability to the impacts of AIDS. In addition, it has a great bearing on the dynamics of HIV/AIDS in the wider population. The purpose of the project is to improve the knowledge base on the patterns of mobility in fisheries in order to influence HIV/AIDS policy responses to accommodate these mobile communities.

Main research questions
a) What are the mobility and migration patterns of fishers and fish traders?
b) How do existing HIV/AIDS health and social services respond to the needs of fishers and fish traders?
c) How can HIV/AIDS services delivery effectively respond to migration and mobility of fishers and fish traders?

Location of the project
The research is being undertaken in Kiyindi fishing community at Lake Victoria, Mukono district. Complementary data has been collected from Ndotwe Island which is one of the main suppliers of fish to Kiyindi. Kiyindi was selected, in part, because it is a permanent nucleated settlement at a landing site. It has a total population of 532, of whom 21 percent are women.

Activities undertaken / planned
- Literature search on mobility and migration in Uganda in general, and in Mukono district in particular.
- Analysis of Kiyindi beach management unit records to establish mobility and migration patterns of the fishers and fish traders over the past years.
- Structured interviews to assess dynamics and motivating factors of mobility.
- Inventory of HIV/AIDS-related services in Ndotwe and Kiyindi.
- Public hearing and focus group discussions with female and male community members in Ndotwe and Kiyindi to assess their needs as well as the potential of social networks to deliver HIV/AIDS services.

The second stage of the research will look at the supply side specifically assessing how service providers respond to identified mobility patterns and dynamics. The findings of

the study will inform the development of advocacy material to be used for engaging policy makers.

(Initial) findings

a) The majority (permanent) of the residents in both Ndotwe and Kiyindi (77%) are immigrants from Kenya, Tanzania and other parts of Uganda. More than half of them have been residents for at least 10 years. 90 percent live away from their spouses and most travel to their natal homes at least once a month. Once they become aware that they are infected with HIV, they either return to their natal homes or move to another landing site.
b) The levels of in-migration fell from 25 percent in 2005 to 20 percent in 2007. This is due to restrictions on movement associated with the need for people to register with the BMU when they migrate (long-term) to or move out of a community.
a) The levels of in-migration are higher than out-migration: a ratio of 1.7:1. The most mobile population is the boat owners followed by fish traders and fishers.
b) Men constitute the biggest proportion of registered people migrating into (90%) and moving out (88%) of the community. Most move in search of more lucrative fishing sites.
c) Kiyindi is characterized by a high level of (unregistered) daily and bi-weekly flows of people, of largely fish traders: fish mongers, fish processors, auctioneers and agents for the private export-oriented firms. These mobile populations secure their livelihoods from the lake but do not reside in the community. They travel from as far as Arua in north western Uganda and Rwanda.
d) While some (43%) women migrate to take up business opportunities within the island, others are “forced” (57%) into accompanying their mostly female relatives to the fishing community. Many live in very difficult circumstances and end up being sexually exploited.
e) Only very few (10%) members of the community see mobility in itself as a major cause of HIV infection. However, the dynamics associated with mobility and migration are perceived to be key drivers of risk and vulnerability i.e. i) women trading sex for food, shelter, transportation or fish (35%) in the fishing communities; ii) many commercial sex workers (10%) attracted by the daily disposable income of fishers (25%); iii) long periods away from spouses (12%) promote temporary relationships usually with several partners…at places of origin, many spouses of migrants engage in transactional sex to supplement their income; and iv) lack of HIV services and information (5%).

List of outputs

- Technical paper on mobility and migration in Mukono district.
- Situation analysis/Mapping study: Responses of HIV/AIDS health and social service providers in fishing communities.
- Policy brief on the significance of HIV/AIDS services delivery to fishing communities and fish traders.

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Assessing options for reducing vulnerability along the fish market chain, Uganda case study.

Title of the project
Vulnerability of women fish processors and traders along the fish market chain reduced and fish supply enhanced through business innovation in Mukono District, Uganda (Lake Victoria).

Implementing institution / contact person
Dr. Nite Tanzarn
Makerere University, Kampala, Uganda.

Overview of the project
Empirical evidence shows that HIV prevalence in fishing communities is more than three times higher than the national average. Various underlying social and economic factors foster the spread of HIV and worsen its impact in fishing communities. For all socio-economic groupings, women are more disadvantaged largely because of unequal power relations that make them socially and economically dependent on men.

The purpose of the project is to reduce the vulnerability of women fish traders along the market chain and enhance fish supply to wider society. The project is expected to empower women fish processors and traders at many fronts. The women will be equipped with entrepreneurship skills which will improve their leverage in the fish market chain. In addition, they will have access to seed capital which will help them either diversify or consolidate their existing business interests. The entrepreneurship development and the seed money will facilitate value addition along the fish market chain and improve women's access to input and commodity markets. This will in turn strengthen their competitiveness in the domestic and export fish markets.

Main research questions
a) What are the key economic and social vulnerability factors for women fish traders?
b) What business innovation can address women fish traders' vulnerability to HIV/AIDS?
c) How can the good practices from the business innovation be replicated in order to enhance fish supply chains?

Project implementation
The project is being implemented in Kiyindi fishing community at Lake Victoria, Mukono district. The project targets women traders because they: i) are disproportionately affected by the liberalization of the fish market; ii) experience the greatest difficulties in accessing productive assets and commodity markets; and iii) are more vulnerable to HIV/AIDS due to negative socio-cultural factors, including gender inequalities.

The project consists of two components: research-for-development and pilot intervention. The research component involved a socio-economic study which was

conducted using both qualitative and quantitative methods. A review of existing data and knowledge of factors that predispose women processors and traders to HIV infection and make it difficult to cope with its impact was undertaken. Six focus group discussions (FGDs) were conducted separately for female and male members of the fishing community along all the key levels of the fish market chain: production, processing and marketing. The findings of the FGDs directed the design of a questionnaire which was administered to 108 women and 86 men.

A pilot intervention to respond to the key vulnerability factors identified in the socio-economic study will be subsequently designed. The intervention will benefit women fish traders from the study site. The intervention will involve: i) entrepreneurship development training (incorporating a module on gender) for female fish traders targeted at facilitating their participation in business; and ii) micro-financing to trained female fish traders. The lead researcher will provide technical support during implementation and she will closely monitor the progress of implementation.

(Initial) findings

a) All the female and 95 percent of the male respondents believe that fishing communities are more at risk of HIV/AIDS than other communities. While 81 percent of the female respondents say that women are the most likely to be affected by HIV in their community, men think that both sexes are almost equally at risk (men – 53% and women – 47%).
b) The majority (54%) of women interviewed associate HIV infection in their fishing community to (women engaging in) transactional sex. Most (40%) of the men interviewed believe that the major cause of HIV infection in Kiyindi landing site is the daily disposable income of the fishermen.
c) Both women and men agree that female fish traders are the category that is most at risk of HIV infection. This, according to the female fish traders themselves, is because female fish traders:
    - Cannot negotiate safe sex (98%). *"Men use condoms whenever they like, especially when having sex with a stranger. But it is almost impossible for a woman to demand that a man uses a condom."*
    - Drink a lot (95%) and end up engaging in unprotected sex.
    - Have many sexual partners (86%) out of necessity. Many exchange sex for fish or for means of transport because their businesses are undercapitalized (75%, 61%). *"As a female fish trader, you have to be friends with the fishermen in order to be guaranteed access to fish. If you do not have a 'friend', you do not get fish and therefore, run out of business*."
d) Female fish traders are more vulnerable to the impact of HIV/AIDS than men because once they become infected:
    - Many are abandoned by their partners and yet they do not belong to social support groups. *"The trend here is that when a woman gets infected, the husband/lover abandons her. If a woman is the first one to fall sick, she is accused of being the 'loose' one, the one who brought the infection into the family."*

- Their incomes go down. "*Women fish traders, especially those who deal in fresh fish, are more vulnerable because as soon as signs of AIDS show, their customers stop dealing with them."*

List of outputs

- Technical paper: Economic and social factors of vulnerability for women fish traders.
- Technical report: Project document on business innovation to respond to key vulnerability factors.
- Technical/project implementation reports on business innovation.
- Technical report documenting the experiences of addressing the key vulnerability factors for women fish traders through a business innovation.
- Guidelines for business innovations to respond to vulnerability for women fish traders.
- Policy brief.

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Analysis of the nutritive quality and post-harvest handling of 'low-value' fish products marketed in Mukono District, Uganda.

Title of the project
Analysis of the nutritive quality and post-harvest handling of 'low-value' fish products marketed in Mukono District, Uganda (Lake Victoria region).

Implementing organisation / contact person
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Description of Research Project and its importance
The declines in catches of fish from Lake Victoria coupled with increased demand for fish at local, regional, and international levels has lead to increased consumption of fish species and products that used to be considered low-value. At the moment, the bulk of Nile perch from the region is filleted and exported and the waste products from filleting operations have become lucrative business and major source of fish for local (poor) populations. The locals have also turned to consuming mukene (also called dagaa or omena) which is a sardine-type fish that used to be considered 'poor man's food'. Hence this study strives to determine how these low products are being processed and consumed. This information will help us determine practices that need to be improved in order to safeguard the quality of these fish products. This is very important because low-value fish products are mainly consumed by poor people who are either living with HIV and/or at high risk of malnutrition.

Research questions
Main research question:
How can post-harvest handling activities be improved to ensure good quality low-value products reaching individuals affected by HIV/AIDS and those at risk of malnutrition?
Contributing questions:
(i) What is the detailed range of 'low value' fish products marketed in the Lake Victoria region, especially in Mukono District?
(ii) What are the common practices in handling and processing the 'low-value' fish products identified in (i) above?
(iii) What is the effect of post-harvest handling activities on nutrient content of the commonly consumed 'low-value' fish products?

Research Activities
(i) Reviewing of literature to determine the 'low value' fish products marketed from Lake Victoria region. This involved identifying the types of products, their source, and potential consumers. For each product, it was determined how it is handled and processed, who consumes it, value-added products generated, and how the

product can be improved. Much information came from the library of the National Fisheries Resources Research Institute at Jinja (Uganda).

(ii) Focus group discussions and key informant interviews were conducted with artisanal fish processors, fish traders, fisherfolk (*R. argentea* only) and representatives of Beach Management Units (BMUs) at Kiyindi landing site, Mukono District. These helped us to substantiate information from literature review and in most cases provided us with key information on which products to look at and where to obtain the products. This was crucial since there was not much literature on processing and utilization of the low value products.

(iii) We visited a filleting plant in Kampala to gain understanding on how the products are generated and handled. Kiyindi landing site (our primary research site) only processed dagaa, all other fish was taken to factories. We had to go to Ggaba landing site (Uganda) to observe artisanal processing activities. This was important for us to see firsthand the range of products and how they are processed.

(iv) We are currently conducting proximate analyses of samples of key low-value fish products to determine threats to nutritive value of these products. We are in the process of acquiring reagents and supplies to do these analyses. From the review of literature and key informant interviews, it seems that the products that we need to study are *Rastreaneobola argentea*, Nile perch eggs, and skins of both Nile perch and tilapia.

(v) After the analyses, we will be holding a workshop to disseminate results to stakeholders. The targeted participants are fisherfolk, artisanal processors, traders, street food vendors that deal in deep fried fish products, representatives from BMUs, the District Fisheries Office, and filleting factories. This workshop is planned for April 2009.

Research findings

- We have found that the key low-value fish products consumed in the Lake Victoria region are dagaa, juveniles of tilapia and Nile perch, spoiled fish (second grade), and by-products from filleting factories (frames, skins, eggs, heads, fillet trimming, and oil from perch).
- Smoking and sun-drying were the two major methods for preserving fish sold to regional markets. Deep frying was the most common method for processing products consumed locally. The common practices in handling and processing low-value products are associated with both physical and quality losses which translate to loss of nutrients essential to human health.
- The regional demand for by-products (especially dagaa, frames, heads, trimmings, and juveniles) is already causing gaps in fish products demanded at local level.
- Many of the low-value products are being diverted to processing fish meal for animal feed and export – further threatening food security of local populations.

Recommendations

- Fisherfolk, artisanal processors, and factory workers should be sensitized to minimize both physical and quality losses. This entails training these groups on best practices and, where possible, provide support. Both *dagaa* and by-product

processors need support with drying facilities and appropriate packaging and storage for dried products.

- There should be controls in place to regulate exportation of low-value products or diversion of these products into animal feed because this is threatening the food and nutrition security of low-income groups that depend on these products, including people living with HIV.
- Studies should be conducted to map threats to nutrient losses for all low value products. This should involve conducting proximate analyses of key nutrients for low-value products collected at different nodes along the market chain i.e. fresh from fisherfolk, prepared for processing from artisanal processor (e.g. drip dried products), processed products (smoked, sun-dried, and deep fried), at market, and possibly after being prepared by different methods (frying, boiling, or even deep fried).

Outputs

- Two draft technical papers have been produced, entitled: "*A review of patterns in utilization of low-value fish products marketed from Lake Victoria region*" and "*Post-harvest handling of low-value fish products and threats to nutritional quality: A review of practices in the Lake Victoria region*" . They are currently both under review.
- A report on the effects of processing methods on nutritional quality of fish products is due by end March 2009.
- Technical synthesis paper will be written by mid April 2009.
- Policy Brief by end of April 2009.
- Scientific paper submitted by April 30, 2009.

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Stakeholder awareness and inputs into research projects in Mukono District, Uganda.

Title of the project
Building stakeholders awareness of fisheries and HIV/AIDS in Mukono District, Uganda (Lake Victoria Region Component).

Implementing institution and contact person
The Department of Fisheries Resources (DFR), under the Ministry of Agriculture Animal Industry and Fisheries, Entebbe, Uganda.
Contact person: Mr. Aventino Bakunda (DFR).

Purpose of the activity
DFR is providing the institutional support required to successfully implement the research-for-development activities by Makerere University, through organizing three stakeholder meetings to raise stakeholders' awareness, obtain stakeholder's inputs and disseminate the research results.
The purpose of stakeholders meetings is to generate a shared understanding of the programme objectives and processes. It is important that stakeholders are brought on board and they own the project. Through the meetings, stakeholders are being enabled to suggest sustainable solutions and contribute to the final output.

Main research questions
For the first stakeholder meeting (June 2008), the following objectives were set:

a) To ensure that relevant stakeholders at district, local and national levels are fully aware of project objectives and activities.
b) To obtain relevant stakeholders comments on the proposed research project activities.

For the second and third stakeholder meeting (planned for mid 2009 and early 2010), the objectives are:

- To ensure that research findings are reviewed with relevant stakeholders.
- To agree upon follow-up actions by means of agreed action plan.
- To review research findings to date with relevant stakeholders and address any gaps remaining.
- To identify opportunities for take-up and dissemination of research findings.

Brief description of the project
Lake Victoria component of the project focuses on analyzing low value fish products, by looking at who is consuming fish products and how these products are being processed. The other part of the project analyzes the impact of mobility and migration on vulnerability to HIV/AIDS of fisher folk, and assesses how the vulnerability of women fish processors and traders along the fish market chain can be reduced and fish supply enhanced through business innovation.

The study site is located in Mukono district, along Lake Victoria, and is targeting island and mainland fishing communities, specifically fishers, artisanal fish processors, fish traders with emphasis on women fish traders. Vulnerability to HIV/AIDS, remoteness or poor accessibility to HIV/AIDS care services and regular mobility of these groups were among the key criteria of choice.

Activities undertaken and planned

The first Stakeholder Start-up Meeting was held on 6th June 2008 at Kiyindi landing site in Mukono district. The objectives of the meeting were to:

- Ensure that relevant stakeholders at national, district, and community level were fully aware of the project objectives, activities and processes.
- Obtain relevant stakeholders comments/inputs in the proposed research project activities.
- Agree and understand the next steps of the project implementation.

The planned activities are in accordance with the signed protocols i.e. a second stakeholder meeting to review preliminary research results, and a final stakeholder meeting to discuss the final research reports and project intervention.

Methods used

A one-day stakeholder awareness meeting was held. Prior to the meeting, fishing community participants were contacted through district and sub-county fisheries staff. The staff identified the target fisher groups through their respective Beach Management Units (BMUs). Participants at national level were contacted through official communication. During the meeting, participatory approaches were used to generate stakeholders' views about the research project.

Initial findings

The meeting generated many discussion points, the key ones being;

- The need for improving people's risky behaviour and practices like cross generational sex through sensitization.
- Empowering HIV/AIDS widows who migrate to islands engage in commercial sex.
- Improving HIV/ADS service delivery e.g. involving BMUs in the distribution of condoms, HIV/AIDS education, etc.
- Support institutions like DFR, Local Governments and BMUs to implement the HIV/AIDS Strategy in fishing communities.

Recommendations based on findings

Research should be conducted along with sensitization about HIV/AIDS.

Research should look at how to improve behavior of the people (incl. cross generational sex).

Research project should culminate into tangible deliverables like; health infrastructure, care services.

List of outputs

- Report on First Stakeholder Meeting (submitted and cleared)
- Two Stakeholder Meeting Reports expected mid 2009 (second meeting) and January 2010 (final meeting).
- A shared understanding of the impacts of HIV/AIDS on mobile fishing communities
- Overview of stakeholders' expectations/inputs. Key ones being:
    - Sick people are skeptical about testing. There is need for counseling.
    - Use of Condoms as a preventive measure against HIV infection is not reliable.
    - Women tend to flock to landing sites when fish catches are high and are often heard asking whether there are good catches.
    - BMUs should develop by-laws on how to solve the problem of cross-generational sex.
    - The most workable solution is to improve incomes of women to stop them engaging in transactional sex for survival.

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Analyzing institutional capacity, opportunities and constraints for collaboration among national agencies working on fisheries, HIV/AIDS and food security in Uganda.

Implementing Institution / contact person
Uganda AIDS Commission (UAC), Kampala, Uganda.
Ms. Rose Nalwadda, Director Planning and Monitoring, UAC.

Purpose of the Activity
The Uganda AIDS Commission will contribute to the regional programme by providing an analysis of institutional capacity and collaboration mechanisms among institutions and agencies working with fisheries, HIV/AIDS and food security in Uganda. This will entail institutional assessment of key organizations at national and sub-national level (in Mukono district).

Main Research Questions:

a. What are the key national agencies working on fisheries, HIV/AIDS and food security and how do they relate to each other?
b. What institutional collaboration exists and what changes are needed to improve integration of food security and fisheries issues in HIV/AIDS response and vice versa?
c. What good practices can be scaled up?

Planned Activities / Outputs

- Terms of reference to guide data collection, analysis and preparation of a technical report have been developed. Data collection is yet to be done and has UAC faced the challenge of finding a suitable consultant. UAC is currently arranging to undertake the exercise using its own staff. Other planned activities include to develop/adapt/agree on criteria for deciding best practices on integration of HIV/AIDS and fisheries and food security and criteria for good practice on institutional collaboration. A technical report will be developed based on the findings of the data collection and analysis.
- A stakeholder meeting will be organized by UAC to validate and have consensus on the findings in the draft report and to fill in any information gaps that may exist. A workshop report will be written on this.
- A policy brief will be prepared by UAC.
- A representative from UAC will attend a regional meeting to share the research findings. A report will be written on this participation.

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Migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats, Zambia.

Title of the project
Understanding migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats fishery, Zambia.

Implementing institution
WorldFish Center, Zambia.
Contact persons: Mr. Alphart Lungu and Mrs. Saskia Hüsken.

Purpose
The overall aim of the project is to understand migration and mobility patterns, access to health services and vulnerabilities of female fish traders in the Kafue Flats fishery in Zambia. This research-for-development will inform a business-based pilot intervention to reduce vulnerability to HIV of female fish traders.
The vulnerability of fishing communities to HIV/AIDS has been overlooked in Zambia and fisherfolk have been left largely outside the reach of prevention, care and mitigation programmes. The general remoteness and isolation of most fishing communities in the Kafue Flats (a large seasonal flood plain area in the South of Zambia), combined with fisher folk's mobility makes it difficult for government services to reach out to them and hampers fisher folks access to basic services such as safe water, latrines and health care. It is envisaged that the findings of this project will provide the analytical basis for a business-based pilot intervention to reduce specific vulnerability factors and safeguard livelihoods for female fish traders in the Kafue Flats fishery.

Main research questions to be addressed are:
- 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 can reduce their vulnerability to some of these risk factors?
- How can female fish traders actively participate in improving access to HIV/AIDS related services and technologies in remote fishing camps?

Location
The project focuses on two study sites in the Kafue Flats fishery; Nyimba and Namalyo fishing communities. Nyimba is a permanent fishing community; Namalyo is a temporary and seasonal fishing camp. Both fishing communities have high population densities during fishing seasons and yearly receive a lot of immigrant fishers and fish traders from March to November, from different parts of Zambia and from neighbouring countries (DRC, Botswana, Zimbabwe).

Implementation / methods

Primary target groups include female fish traders, fishers and fish processors.
Targeted key informants include traditional local authorities (Chiefs, headmen, fish camp chairmen and their assistants), and relevant stakeholders at district and national levels (e.g. district fisheries authorities, health management boards).

The selection criterion for the research in the Kafue Flats is based on the following characteristics contributing to fisherfolk vulnerability to HIV/AIDS:

- ❖ Proximity to services which is attributed to the general isolation and remoteness of fishing communities.
  Both study sites are primarily located in rural and very remote places with limited access to / lack of government Health and HIV services (e.g., clinics, VCT services), clean water and sanitation, recreational facilities (contributing to high-risk behaviour, illicit beer brewing and alcohol abuse), education, HIV information, and infrastructure (incl. road networks, transport facilities, market infrastructures).
- ❖ The economy and scale of fishing; in both study sites, fishing is the main economy and source of employment, both on small and medium-scale.
- ❖ High levels of "fish-for-sex" deals (= transactional sex).
- ❖ Increasing levels of migrant fish traders (mostly female fish traders) from different localities in Zambia and outside Zambia including the Democratic Republic of Congo (DRC), Botswana and Zimbabwe.
- ❖ Diverse ethnic composition with different cultural beliefs and practices.

Activities undertaken / planned at field level

- Phase 1 of data collection; 3 Focus Group Discussions in Namalyo fishing community conducted in November 2008. Participants included: fisherfolk and female fish traders.
  Objective: Understand the general risk factors influencing fisherfolk vulnerability to HIV/AIDS in the Kafue Flats fisheries with particular emphasis on women.
- Phase 2 of data collection (from April 2009 onwards);
  - o Focus Group Discussions in Nyimba fishing camp (fisherfolk and female fish traders).
  - o Structured interviews through questionnaires in both Namalyo and Nyimba fishing communities (fisher folk, fish traders, chiefs).
  - o Interviews with key informants (traditional local authorities, district and provincial authorities).

  Objective: To understand specific manifestations of vulnerability and risk factors in selected fishing camps, and the role of relevant authorities in supporting fishing communities in the Kafue Flats.

Outputs

1. Literature Review on likely factors of vulnerability of fisher folk and fish traders in the Kafue Flats (February 2009).
2. Research Design report (February 2009).

3. Overview of secondary data on Kafue Flats fishery (March 2009).
4. Technical report on the field studies: Identification of specific HIV vulnerability factors among female fish traders (June 2009).
5. Guidelines for pilot intervention (May 2009) and technical guidance to identified local NGO during planning and implementation of business-based pilot intervention.
6. Draft Publication on Vulnerability (August 2009).
7. Quarterly technical analysis papers on pilot intervention, and final paper (January 2010).
8. Draft publication on pilot intervention (January 2010).
9. Stakeholder workshop and report (February 2010).

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Analyzing the effects of a fish diet on the nutritional status of People Living with HIV and their response to ART, Lusaka, Zambia.

Title of the project
Analyzing the effects of a fish diet on the nutritional status of People Living with HIV and their response to ART, Lusaka, Zambia.

Implementing institution and contact person
Kenneth Kaunda Children of Africa Foundation (KKCAF)
Contact Person: Dr. Waza Kaunda, St Clare's Center of Applied Nutrition, Lusaka. Tel: +260 211-294863.
&
University of Zambia, School of Agricultural Sciences.
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The main purpose of the project
The main purpose of the project is to strengthen the capacity of People Living with HIV and AIDS (PLHIV) and agencies (KKCAF, clinics, Universities, policy makers) to build strategic responses to HIV/AIDS in the fisheries sector that will contribute to economic and human development in Zambia.
This project entails a statistically designed scientific clinical research on the impact of nutrient dense fish to supplement the diets of People Living with HIV (PLHIV) and their response to ART.

In mitigation efforts against HIV/AIDS, the promotion of good nutrition and fisheries development is essential. This study will provide statistical results to substantiate importance of good nutrition and fish supplementation in diets of PLHIV. In the long-term this will contribute to national economic development, attainment of the MDGs, improvement in National HDI and attainment of Zambia's 2030 Vision: " Becoming a middle income economy by 2030".

Main research questions
a. What is the current knowledge on the impact of nutrition, especially fish, on People Living with HIV/AIDS and their response to ART?
b. What effect does a fish diet have on patients' response to ART (in-patients and home-based care patients)?

Location and selection criteria
The project is being conducted in Lusaka province (Lusaka, Chawama and Kafue district, Nansenga area) and Central Province (Chibombo district). The project targets community HIV/AIDS health care centers operated under the KKCAF for vulnerable and

poor people. These health centers are linked to rural clinics where people are referred to for counselling and testing. These patients, once enrolled at KKCAF, are provided with free drugs and food supplements.
The selection criteria for the project sites were based on:

- Accessibility of the area by the clients
- Of the two sites, one is in a fishing area along the Kafue river ("clients have more access to fish in their diets") and other is far from a fishing area, where access to fish in the diet would be lower and hence any benefit from fish supplement to the diet might be more visible.
- Households from which the clients come from are poor and food insecure.

Activities undertaken and methods used

- Literature review on the impact of nutrition and response to ART. This involved searching journals both in libraries and on internet and review of reviews on nutrition and HIV/AIDS.
- The preparatory phase for clinical nutrition research undertaken, which involved:
    - Developing a semi-structured questionnaire for one-on-one interviews with the clients to assist in the selection of clients suitable for enrolling in the clinical study;
    - Training of field assistants to administer the questionnaires;
    - Pre-testing of the questionnaire for clarity, completeness and compliance in effective selection of clients for the clinical study (for exclusion of excessive beer drinkers, smokers, and no-fixed abode persons).

Initial findings

The literature showed that:

i. While malnutrition and hunger in both children and adults particularly in rural areas in Zambia has been devastating, HIV/AIDS has exacerbated the situation. The debilitating disease of HIV/AIDS leads to rapid loss of weight through the opportunistic infections such as diarrhoea, fever, flue and loss of appetite, exerting a heavy toll on an already weak and immune reduced body. The efficacy of drugs on such challenged bodies is lowered and may even be detrimental to the survival of the patient. Supplementing HIV/AIDS patient with nutrient dense foods such as RUTF (CRS, 2007) and fish (KKCAF, 2008) showed positive response to antiretroviral drugs leading to improved health and return to more useful life by hospitalized patients.

ii. Although nutrition is acknowledged as important in preventive care and management of HIV/AIDS, most health practitioners and care givers do not use nutritional guidelines for the management of HIV/AIDS.

iii. PLHIV need early and effective nutrition education to decrease their potential for malnutrition. Little is yet known about affected household food consumption in general and the role of fresh and processed fish in food consumption baskets, and the intra-household allocation of food to individual members and its effect on survival of patients, especially PLHIV.

iv. There is need for scientific research on the impact of nutrition and specific foods such as fish on HIV/AIDS patient response to antiretroviral drugs, and the dietary requirements and reflected minimal body nutrient pools in the survival of patients need to be established.

Recommendations based on findings

- Good nutrition and food security are key in preventive and early intervention, as it improves response to drugs and delays the full development of AIDS. It moreover reduces episodes and severity of opportunistic infections, and reduces the length and frequency of hospitalization.
- There is urgent need to emphasize the importance of the use of Nutrition guidelines which provide information on nutritional care component practices, wasting management, HIV care standards based on different regions, treatment philosophy and patient population. In addition people living with HIV/AIDS will benefit from early nutrition education and intervention.
- There is need for increased scientific research on the impact of nutrition and high quality nutrient dense foods such as fish supplementation in the diets of PLHIV. Such research will inform recommendations on nutrition and fish supplementation in particular, and provide technical guidelines on the importance of fish in the diets of PLHIV for policy development.

Planned activities

- Administration of the questionnaire in the selected project sites and selection of clients for the clinical nutrition study.
- Selection and establishment of baseline nutrition and clinical indicators.
- Start of the fish supplementation study Design of experiment based on enrolled numbers of clients and the available fish stocks.
- Clinical Nutrition Study: delivery of fish and other food supplements and recording of data for the duration of the clinical trial period. Statistical analysis of the data and report writing.

Outputs

- Literature Review: "*The Impact of General Nutrition and Fish Supplementation on the Response to HIV/AIDS Treatment*". Currently under review. Draft paper submitted (Jan '09, under review).
- Patient Baseline Semi-structured Questionnaire developed (Jan 2009, under review).
- Research plan, including detailed methodology for clinical nutrition research (March '09).
- Report on the baseline food security and nutrition status of the clients in the research area (April '09).
- Report of the statistical analysed results of the clinical nutrition research carried out and its recommendations for policy (December '09).
- Stakeholder Workshop to disseminate the results and policy brief (January '10).
- Research paper(s) published in a refereed journal (2010).

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Understanding vulnerabilities among women fish traders in South-Eastern Arm of Lake Malawi and Cahora Bassa, Mozambique.

Project title
Understanding and developing business innovations to reduce vulnerability among women fish traders in South-Eastern Arm of Lake Malawi and Cahora Bassa, Mozambique.

Implementing institution / contact person
Department of Economics, University of Malawi, Chancellor College.
Dr. Patrick Kambewa (Principal investigator).

Collaborating institutions:
- World Vision Malawi (Mr. E. Mwendo)
- World Vision Mozambique (Mr. Antonio Mazive)
- University of Eduardo Mondlane
- WorldFish Center Malawi

Description of the project
The fisheries sector is a group that is vulnerable to the HIV and AIDS pandemic. Oftentimes, they are not recognized as being vulnerable yet recent studies have revealed that fishers are a group at high risk of HIV infection. The nature of activities surrounding the fishery sector (catching, mobility of fishers and mobility of traders) tends to predispose fisherfolk to contracting the virus. It has been observed that among the various players, women play an important role in the fishery. It was hypothesized that to better understand the vulnerability of these, a market chain approach would best unlock the nature and extent of the vulnerabilities facing these women fish traders.

The purpose of this study therefore is to identify risk factors for vulnerability to HIV and AIDS in the fishery subsector, along the fish market chains in Lakes Malawi and Cahora Bassa, focusing on women fish traders. A market chain analysis was conducted in fish and fish products marketed, from actors and activities involved in catching and harvesting, to processing of fish, transportation and storage of fish, trading and consumers. Thus at each stage along the chain, factors have been identified that expose various actors to vulnerability of contracting HIV and AIDS. After analysis of the vulnerability factors affecting women fish traders, this study will inform the design of innovative business interventions to reduce identified vulnerabilities of women fish traders. Eventually, policy recommendations will be made on possible intervention models to mitigate the impact of HIV and AIDS on fisher folk, and women fish traders specifically.

Research questions
1. What are the risk factors for vulnerability to HIV and AIDS among women fish traders along the fish value chain?

2. What business-based innovations can reduce women fish trader's vulnerability to key factors along the fish value chain?

The main questions in this study were aimed at identifying factors along the value chain that would lead to the women engaging in behaviour that is considered to be of high risk of contracting HIV. Other questions asked were on how they started a business, who they buy fish from, to whom do they sell fish, how do they transport fish to the market, how long they stay out of the market. The questions were micro in nature in that we wanted to establish the nature of transactions along the chain.

Location and selection criteria
The study is being conducted in the South-Eastern Arm of Lake Malawi and Lake Cahora Bassa. The main target group is women fish traders, who normally buy fish, process it (mainly by drying) and transport it to wholesale markets.

Activities undertaken
So far rapid appraisals have been conducted both in Malawi as well as Mozambique in which potential stakeholders have been briefed about the project and initial visits to the sites made.
In Malawi, the main field study has been carried out and the draft report is submitted. Main fieldwork for Mozambique will be carried out starting April 2009.

Methods used
A market chain approach is being used. Individual household questionnaires are used to interview women fish traders. This is being complemented by focus group discussions and key informant interviews of other fishers. Observations are also used.

Initial findings
Findings from Malawi show that indeed there are several factors that can predispose women fish traders to HIV infection. Starting from the Lake itself, there are some women will buy fish through sexual relations with the fishermen, so that they are favoured when supply is low. The same was observed for women who go to the lake from distant areas who want to save their operating capital. Another source of vulnerability is that capital for starting a business is low, with organization giving loans charging exorbitant interest rates and requiring the beneficiaries to start repaying immediately. When women go to markets to sell their fish, they can also engage in risky behaviour in an attempt to save their operating capital. Another source of vulnerability is through marriage to migrant fishers who move from one beach to another in search for good fishing grounds.

Recommendations based on findings
The main recommendation we can make at this stage is that issues of capital need to be seriously looked at. Also, there is a need to empower women with information on business skills. The wish to have their businesses grow quickly can result in their indulging in risky behaviour.

Outputs

- Rapid assessment report (submitted February ’09, under review).
- Value chain analysis report on vulnerability factors among women fish traders along the fish market chain (March ’09)
- Draft publication on value chain analysis (April ’09)
- Technical analysis papers on pilot business interventions (June ‘09, Oct ’09, Dec. ’09)
- Draft publication on pilot business interventions (Dec. ’09)
- Proceedings of dissemination workshop (Feb. ’10).

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Pilot intervention: Business innovations to reduce vulnerability of women fish traders – Cahora Bassa, Mozambique.

Project Title
Business innovations to reduce vulnerability of women fish traders – Cahora Bassa, Mozambique.

Implementing institution and contact person
World Vision International – Mozambique
Mr. Joaquim Antonio Mazive, antonio_mazive@wvi.org Tel: (+258) 825666766
Mr. Bonifacio Marizane, bonifacio_marizane@wvi.org Tel: (+258) 825744590

Purpose of the activity
This particular project component seeks to identify the underlying risk factors affecting the fisher folks, making them vulnerable to HIV&AIDS. Following the problem identification, it is expected that business innovations will be developed in order to respond to the community needs averting the prevailing situation.

Research questions
- What business innovations can reduce key vulnerability factors among women fish traders?
- How can business interactions between women fish traders, fishers, wholesalers and other stakeholders be improved to reduce vulnerability?
- What further business opportunities can women fish traders realise to improve access to HIV/AIDS related services and technologies?

Project site
This project component will address the risk factors pertaining to women fish traders and business innovations to reduce their vulnerability to HIV&AIDS. The field research will be implemented in Cahora Bassa Dam, in Tete Province, Mozambique, following the qualitative study on vulnerabilities by Chancellor College, Malawi. Cahora Bassa Dam has a very rich biodiversity with various fish species and aquatic plants, however the study will concentrate on the fish market chain. Given the complex nature of this market chain and lack of health services along the market chain, fish traders, especially women fish traders are vulnerable, and it is believed that business innovation will lead to reduction of some of the key risk factors. Moreover, the research findings and good practices will be compiled into scientific documents and publications that will be presented to different stakeholders in a bid to influence policy.

Methods to be used
(i) Meetings with local leaders and focus group discussions at selected project sites
(ii) Design and implement pilot intervention
(iii) Plan & Monitor intervention & development skills
(iv) Document business activities agreed by the group
(v) Preparation of technical paper on the pilot intervention

Planned activities
Sensitization of local leaders, fish traders and fisher folk about the project (May ’09).
Participatory design of pilot intervention with project partners (May ’09).
Implementation of pilot intervention (+ ongoing monitoring) (June ’09).
Final evaluation meeting of pilot intervention (Dec.’09).
Report on pilot intervention and contribution to dissemination workshop (Jan ’10).

Outputs
Pilot intervention and monitoring plan (31 May ’09)
Technical progress reports on pilot intervention (July ’09, Oct. ’09, Dec. ’09)
Final Report on project intervention, including lessons learnt (Jan. ’10)
Paper and presentation for Dissemination Workshop (Jan. ’10).

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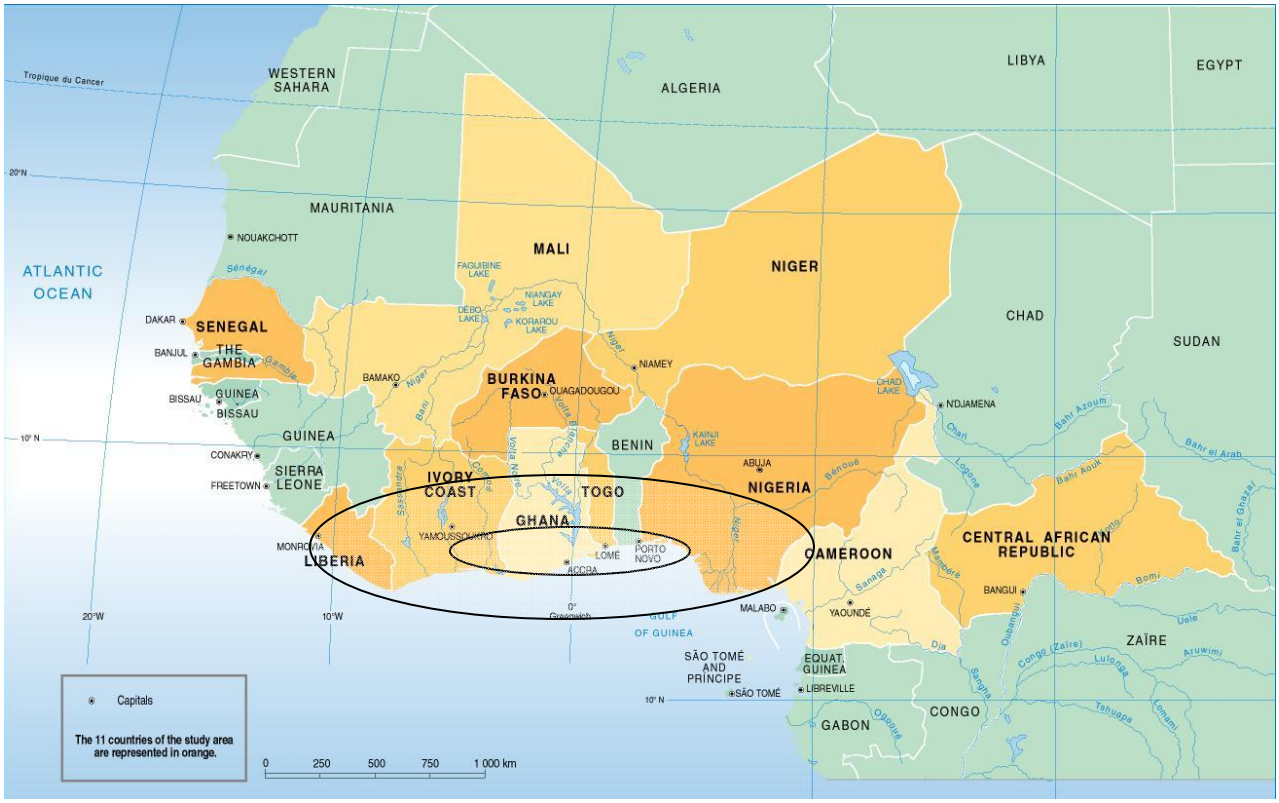
West and Central Africa Component

Compiled by:
Ms. Katrien Holvoet
Food and Agriculture Organization (FAO)
Cotonou, Benin



Map of intervention zone and partners
source: http://maps.grida.no/library/files/storage/poverty_mapping_study_area.jpg

Intervention zones: Benin, Nigeria, Cameroon

- Coastal and continental fishing communities in Benin
- Corridor Lagos-Abidjan
- Coastal fishing communities in Cameroon
- Lake Chad basin fishing communities in Nigeria (Borno state)
- Coastal communities in Lagos state Nigeria

Partners:

HIV/AIDS control

- PPSAC: Chad, Cameroon, CAR, + Congo, Gabon, Equatorial Guinea
- Lake Chad Basin Initiative: Chad, Niger, Nigeria, Cameroon, CAR
- ECOWAS/ WAHO- Nutrition

Fisheries regional organisation

- CCPO: Liberia, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria

Regional Economic organisations and other international agencies:

- ECOWAS
- FAO AIDS PAIA

Technical partners:

Benin:

Unité de Coordination Nationale (UCN)/ Département de pêche **:**

- Mme Hounkpé, Cathérine
- Mr Galo, Pierre

Cartography:

Consultants:

- Aziable, Amélie
- Legonou, Solange
- Nkouton, Narcisse

PSI Benin (USAID/IMPACT):

- Léger, Foyet
- Cyprien, Zinsou

Cameroon:

INRA Limbé

- Mr Chiambeng Youngbi, George

Nigeria:

National Institute for Freshwater Fisheries Research

- Dr Ovie, Solomon

University of Maiduguri

- Dr Pate
- Dr Dunli

Nigerian Institute for Oceanography and Marine Research

- Abohweyere, Parcy
- Solarin, Bolu

SACA Borno:

- Dr Liman, Musa

A. Options for reducing vulnerability along the fish marketing chain

Benin: (i) Production support and livelihoods diversification

1. Production support and livelihoods diversification: Unité de Coordination Nationale (UCN)/ Département de pêche

A. Projet d'appui aux AGR /options pour réduire la vulnérabilité

Problématique:
- Tendances de baisse de production et saisonnalité des activités de pêche qui touchent les groupes les plus vulnérables et les plus pauvres et les rendent plus susceptible au VIH & SIDA.
- Un plan d'action communautaire de lutte contre le VIH & SIDA sensibilise, augmente la résistance par la prévention et améliore l'accès aux soins pour des PVVIH mais n'arrive pas à mitiger tous les impacts du VIH & SIDA.

Réponse:
- Mobiliser et responsabiliser les communautés de pêche pour une «réponse productive» de réduction de la vulnérabilité au VIH & SIDA viennent compléter les efforts des services de santé et ouvre les actions du PACLS aux autres secteurs.
- Centrer l'approche sur les savoirs et savoirs faire de la communauté en mettant en valeur leurs pratiques de diversification des ME et en renforçant les liens avec des partenaires stratégiques.

Objectif du projet : Appuyer une dynamique de réponse communautaire productive
- Analyser les pratiques de diversification et leurs contributions à la réduction de la vulnérabilité de la communauté au VIH & SIDA.
- Appuyer la mise en ouvre des micro-projets de diversification par les ménages les plus vulnérables entre autres les ménages affectés et/ou avec un PVVIH (veuves, orphelins).
- Renforcer les liens entre les communautés et avec les services agricoles, des institutions de micro finance
- Renforcer la capacité des communautés en gestion.
- Suivre l'impact des micro-projets sur (i) la réduction de la vulnérabilité, (ii) l'impact du VIH & SIDA et (iii) la sécurité alimentaire.

Quatre communautés de pêches lagunaire et côtière ont des actions en cours
Les quatre villages totalisent une population de près de 18.000 habitants. Les deux groupes socio culturels dominants sont les Toffin, Xwédah et les Xwlah. A ceux, s'ajoutent des groupes allogènes surtout des Ghanéens (villages côtiers).
Hio se situe à 15 Km de Cotonou sur la route des pêcheurs. Le village compte 1391 habitants.
Ayiguinnou est traversé par la route inter état Cotonou-Lomé-Accra. Il existe une forte tendance à l'émigration au niveau des jeunes. Plusieurs personnes ont une partie de leurs parents au Gabon, en Côte d'Ivoire, au Congo Brazzaville et au Cameroun pour la pêche et la post capture. Aiyiguinou compte 1304 d'habitants.
Kétonou est un village situé à 28 Km de Cotonou et 14 Km de Porto Novo. La pêche est continentale.
So-Zounko est situé sur la partie Est du vaste bassin du lac Nokoué entre Cotonou et Porto Novo et compte 7739 habitants. Il n'y a qu'un accès par la voie fluviale.

Matériel et méthodes:
- Une analyse participative des pratiques de diversification et de la vulnérabilité est réalisée avec des sous groupes identifiés par et au sein de la communauté. De l'analyse des pratiques de diversification il résulte une classification des activités de diversification priorisées par chaque sous groupe sur la base des critères de contribution de l'AGR à la réduction de la vulnérabilité.
- Restitution et validation des résultats d'analyse des AGR clôturent la séance participative d'analyse.
- Ensuite interviennent l'identification et l'analyse des ménages en vue de la sélection des ménages
  vulnérables, l'élaboration des micro-projets par ménage et une analyse technique desdits projets.
- Les micro-projets sont approuvés et un comité de gestion communautaire est mise en place.
- Les partenaires sont informés et participent à l'exécution (formation, visite technique). Une assistance technique est fournie par les IMF.

Résultat:
- Un fonds de roulement est fonctionnel dans la communauté; une dynamique d'appui à la réponse productive est gérée par la communauté avec une diminution de la vulnérabilité des ménages les plus vulnérables.
- L'interaction entre la communauté et le centre de santé, le comité local de VIH & SIDA (CLVIH) avec assistance aux PVVIH ; l'IMF et les services techniques du CeRPA et d'autres partenaires est renforcée.
- Le revenu des ménages vulnérables est amélioré et contribue à la sécurité alimentaire, l'éducation des enfants et l'état de santé des membres du ménage.

Stratégie de durabilité:
- Renforcement des capacités de la communauté à bien comprendre la vulnérabilité et à organiser une réponse productive et dynamique.
- Différents partenaires sont associés au processus (niveau méso).

- Rapprochement entre production agricole et les aspects de santé dans la lutte contre le VIH & SIDA.

B. Etude d'impact des actions de réduction de vulnérabilité à l'infection au VIH/SIDA par l'initiative d'appui aux Activités Génératrices de Revenus

Unité de Coordination Nationale (UCN)/ Département de pêche / consultante Gnimadi, Chantal et Frédérique, Asoghban.

Objectifs de l'étude

- Analyser les résultats des activités (qualitatif et quantitatif) de diversification dans les communautés de pêche auprès des ménages très vulnérables (dont certaines affectées et infectées par le VIH/SIDA).
- Mettre en évidence et documenter les impacts des activités génératrices de revenu sur les moyens d'existence des ménages (réduction de la vulnérabilité) et documenter l'influence de l'initiative sur le comportement à risque des bénéficiaires (ménages très vulnérables) et les membres du ménage.
- Identifier selon le genre, les groupes les plus dynamiques ayant tiré plus de bénéfice/profit des opportunités de l'initiative.
- Identifier les faiblesses dans l'approche en terme de (i) rendre disponible aux PVVIH un appui au développement des activités génératrices de revenus, (ii) interaction entre le comité de gestion (AGR), le comité locale de lutte contre le VIH/SIDA et le centre de santé et de dépistage, (iii) interaction entre la communauté et les micro-finances de proximité.
- Dégager les leçons apprises.
- Formuler des recommandations sur comment (i) l'intensification (nombre de communauté bénéficiaire) pourra être accompagnée (le rôle de l'épargne; choix des bénéficiaires, mécanisme d'appui à l'élaboration de micro projets), (ii) arriver à une meilleure intégration dans la lutte contre le VIH/SIDA (mitigation d'impact et prévention auprès des groupes très vulnérables) et liens à établir avec des projets/bailleurs, (iii) partenaires potentiels et institutions pour améliorer la durabilité (iv) arriver à une meilleure prise en compte du genre et (v) réduction de la stigmatisation des PVVIH et dynamique communautaire en faveur de la prise en charge.

Résultats attendus

- Le mécanisme et l'organisation du fond renouvelable de financement des activités génératrices de revenu pour les ménages très vulnérables sont analysés,
- La contribution des activités génératrices de revenu à la réduction de la vulnérabilité est mise en évidence,
- La contribution des activités génératrices de revenu à la diminution des risques à l'infection du VIH/SIDA auprès des ménages très vulnérables est documenté (mécanisme de choix de ménages appuyés, interaction avec le centre de santé, fonctionnalité du comité de gestion, analyse technique des AGR) ; (quantitatif et qualitatif)

- Les contraintes particulières en terme de genre (par sexe, âge, ethnie (pêcheurs migrants (allochtones et étrangères)) sont analysées.

Approche
L'étude sera conduite sur la base de questionnaire, de discussion individuelle (ménages) ou par focus groupe, d'échanges avec les services techniques d'appui (CerPA agent de pêche, UCN) et avec les institutions de microfinance et des services de santé, le comité local de lutte contre le VIH/SIDA et l'ONG d'accompagnement. L'analyse devra se faire à partir d'échantillons comparatifs incluant les hommes et les femmes (avec et sans activités diversifiées) dans les communautés de pêche de Hio ; Ayiguinnou, So-Zounko et Kétonou. Les documents d'analyse de micro projets et le profil du ménage pourront servir comme document de référence.

Contact person
Mme Hounkpé, Cathérine.
Directrice des Pêches du Bénin ; Mr Galo Pierre, Unité de Coordination National Direction des pêches du Bénin.

2. Chain Actors support

Benin and Nigeria:
Unité de Coordination Nationale (UCN)/ Département de pêche(Benin).

Nigerian Institute for Oceanography and Marine Research (Nigeria)
- Solarin, Bolu.

A. Crab value chain analysis and analysis of HIV/AIDS vulnerability of the actors in the chain.
B. Stratégies d'appui (upgrading) et plan d'action pour la filière crabes
C. Processus de réduction de vulnérabilité des acteurs de la chaîne valeur crabe au VIH/SIDA : approche chaîne et approche communautaire : (i) diagnostic participatif VIH/SIDA et (ii) Etude de cas acteurs de la chaîne valeur (Etude socio anthropologie groupe mobile femmes et sexe transactionnelle et prostitution) / éducation des pairs

A et B ont déjà été réalisés, C sera lancé en cours du mois de Mars (période de haute capture) et ci-dessous le TdR.

C. Etude socio-anthropologie avec groupes cible spécifiques : jeunes et ceux dans le transport et mobilité liés à la collecte et la commercialisation, pratiques à risques dans la transaction sexuelle et prostitution de la chaîne valeur crabe.

Unité de Coordination Nationale (UCN)/ Département de pêche/ consultants : Légonou, Solange et Pades, Jonas.

Méthodologie
La méthodologie pour cette étude serait qualitative et construirait sur l'information qui est rendue disponible à partir des études KAP et la cartographie et à partir des aspects sociaux et de l'analyse de la chaîne valeur pour compléter les données avec des informations anthropologiques qualitatifs.

Etude de cas socio-anthropologique visant un certain nombre de groupes spécifiques pour obtenir des informations sur les causes déterminantes culturelles (les attitudes, croyance, culture, des valeurs et des normes) et les facteurs économiques qui caractérise la susceptibilité et la vulnérabilité à l'infection et l'impact de la maladie.

Groupes cibles
- Groupes mobiles (hommes et femmes) groupes mobiles : désagrégé accordant à la position dans la chaîne valeurs ou dans la production ; migrant (hommes et femmes): type et durée de migration.
- Personnes avoir des partenaires sexuelle privilégiés / transaction de sexe et des professionnels de sexe.
- Jeunes.
- Veuves et femmes séparées, Enfant ayant perdu ses parents et enfants vulnérables.

Objectifs
- Comprendre les facteurs de risque principaux pour chaque groupe lié à différents composants des moyens d'existence.
- Comprendre les différentes stratégies individuelles de prévention.
- Comprendre les stratégies de niveau communautaire de prévention.
- Indiquer les implications pour des politiques et des programmes.
- Comprendre la dynamique économique qui soutient les transactions de sexe et des professionnelles de sexe (ouvriers de bordel ; travailleuse dans les bars).
- Comprendre la construction de la masculinité (jeune homme) et les facteurs de risque liés aux jeunes hommes et à l'infection de VIH/SIDA.
- Suggérer d'approche qui pourrait être appliquée au travail dans une perspective de genre avec des jeunes et les femmes à haut risque.
- Suggérer les voies pour changer et les facteurs qui favorisent équité, perception de santé et soins de santé et non violence.

Méthodologie
Méthode anthropologique (éventuellement biographique narrative et questionnaires pré codés.
Observations et discussions.
Analyse statistique et analyse comparative par groupe des récits biographiques.

Résultats attendus
Approche décrit et manuel de formation des pairs pour intervention dans la logique chaîne valeur disponible.

B. Enhancing nutrition benefits from small scale fisheries and aquaculture

1. Benin:

Base line on food security and diversity, HIV/AIDS affected households and diversification assistance.

Unité de Coordination Nationale (UCN)/ Département de pêche.

Le Projet Pêche et VIH/SIDA en Afrique a en collaboration avec l'Unité de Coordination Nationale de la Direction des Pêches et avec l'Université d'Abomey Calavi initié une recherche sur la situation de sécurité alimentaire et la diversité nutritionnelle dans quatre communes côtières et lagunaires du Sud du Bénin en Avril 2008. L'initiative cadre dans l'objectif de promouvoir un accompagnement approprié des ménages affectés par le VIH/SIDA et des maladies chroniques en matière de nutrition et promouvoir auprès des communes l'élaboration des plans d'actions d'amélioration de la sécurité alimentaire.

La recherche, se déroulant en saison de la bonne pêche et en saison de mauvaise pêche (au cours de laquelle les zones lagunaires connaissent les crues), a été couverte par ce protocole d'accord.

Les éléments de la recherche de l'analyse de la situation de la sécurité alimentaire et la diversité nutritionnelle sont listés ci-dessous :

- Comparaison des résultats entre communes.
- Comparaison des résultats entre communautés rurale (non pêche) et communautés de pêche.
- Comparaison communautés appuyées par PMEDP et non appuyées (impact action de réduction de vulnérabilité).
- En plus avec le questionnaire socio économique il serait utile d'identifier sur la base des données socio économiques les différences significatives entre groupes socio professionnels (statut économique).

D'autres activités du programme concerne les villages de Hio, Ayiguinnou, So Zounko et Ketonou et ces villages ont été sujet à l'échantillonnage spécifique selon les ménages très vulnérables et/ou affectés par le VIH/SIDA dans le cadre de vérifier l'impact des actions de diversification des ME sur les indicateurs mesurés.

Le contexte de l'étude est que La Direction de l'Alimentation et de la Nutrition Appliquée (DANA), sur la base des données d'une étude menée en 2000, a distingué quatre zones à risque d'insécurité alimentaire en fonction de la couverture des besoins énergétiques par les productions alimentaires. Dans le Mono/Coufo, l'Atlantique/Littoral et le Ouémé/Plateau des communes où de nombreuses communautés de pêche se trouvent, sont des zones à risque majeur. Il s'agit entre autre des communes de Grand Popo, Ouidah, So-Ava et Sémé Podji.

Peu d'appui est donné aux communautés de pêche pour organiser une réponse à leur vulnérabilité au VIH/SIDA. Le PMEDP/UCN a, depuis 2003, été actif dans quelques

communautés de pêche et voudrait documenter l'impact de ses actions en vue de mobiliser d'autres ressources. Le PMEDP/UCN n'a pas encore pu documenter l'impact de ses activités sur la sécurité alimentaire. Aucune analyse n'a été faite pour comprendre la contribution de la pêche à la sécurité alimentaire et l'état nutritionnel.

La mise en œuvre des activités en collaboration avec l'Université est très importante. Le travail avec l'Université pourrait inclure la mesure de la prévalence de la malnutrition chez les femmes et les enfants, ainsi que l'étude des effets de saison sur la diversité alimentaire et l'insécurité alimentaire des ménages. Il a été proposé de faire travailler un ou deux stagiaires de l'Université sur l'enquête, en collaboration avec la consultante FAO et la consultante CILSS.

En ce qui concerne le rôle de la Direction de l'Alimentation et de la Nutrition Appliquée (DANA) pour les activités futures, les agents DANA devront être mobilisés pour la conduite de l'enquête. La DANA pourra utiliser les résultats obtenus pour amener les populations à changer leurs habitudes alimentaires si cela est nécessaire. L'enquête va en effet permettre à la DANA de mieux définir les actions à mettre en œuvre. Cependant, pour cela, il sera essentiel de renforcer la formation des agents de santé en nutrition afin qu'ils puissent conseiller les personnes sur leur alimentation et éventuellement les orienter vers des centre de réhabilitation nutritionnelle. Le DANA doit être surtout actif dans l'accompagnement des communes à formuler des plans d'actions de réponses sur les résultats d'enquête et aussi suivre pour que le PNSA puisse appuyer le DANA et la commune à financer les actions identifiés comme nécessaires. Les communautés de pêche ont des problèmes d'accès aux soins. Il serait utile de comprendre les causes de la malnutrition, causes immédiates qui pourront être situées dans (i) les apports alimentaires (accès à l'alimentation et pratiques de soins (femmes et enfants) ou (ii) des maladies (hygiène et services de santé) au niveau des communautés de pêche.

La recherche a abordé les thématiques de:
i) la sécurité alimentaire ;
ii) la diversité alimentaire;
iii) l'état comparatif des deux indicateurs au niveau des communautés de pêche et communautés rurales ayant leur moyen d'existence hors de la pêche et
(iv) l'impact des interventions auprès des ménages très vulnérables entre autres affectés par le VIH/SIDA.

Les travaux de terrain se sont déroulés dans la période de bonnes captures entre mars 2008 et avril 2008.
La recherche en période de bonne capture (financé par le protocole) a été exécuté en deux phases : (i) une phase préparatoire et (ii) la mise en œuvre. La phase préparatoire a démarré avec la formation des enquêteurs en utilisant le guide qui présente une explication détaillée de chaque question du questionnaire HFIAS (en insistant sur le fait que les questions se réfèrent à l'ensemble du ménage et aux 30 jours précédant l'enquête). La partie sur l'enquête DA donnait une description des principaux plats et aliments locaux avec leur composition.

L'échantillonnage a été confié à un consultant qui a suivi les directives du poids de l'échantillonnage ci-dessous. Afin d'observer des différences entre les deux types de communautés (pêche et non pêche) ainsi que l'impact des activités du Programme, le schéma suivant pour l'échantillonnage a été suivi. La taille initiale de l'échantillon est de 3000 ménages. Pour tenir compte des non-réponses éventuelles dues aux refus ou à l'indisponibilité des ménages à répondre aux questionnaires, l'échantillon a été surestimé de 10% soit 300 ménages en plus. La répartition de l'échantillon selon la commune et le groupe cible se présenté dans le tableau ci-après.

Tableau 1: Structure de l'échantillon des ménages par commune et par groupe cible.

	Ménages pêcheurs des villages bénéficiaires des activités de diversification pour réduire susceptibilité et vulnérabilité au VIH/SIDA	Ménages pêcheurs non bénéficiaires	Ménages agricoles	Total
Grand-Popo	330 dont 31 directement bénéficiaires	330	330	990
Ouidah	330 dont 39 directement bénéficiaires	330	330	990
Sèmè-Kpodji		330	330	660
Sô-Ava		330	330	660
Ensemble 4 communes	660	1320	1320	3300

Cet échantillonnage permettra de montrer une différence significative de 4 points pour HFIAS et 1,5 groupe pour DA. Les données anthropométrique sur l'état nutritionnel des enfants (taille-âge, poids-taille) et les données sur les femmes en âge de procréation qui ont été faites permettront l'étude du retard de croissance qui pourrait montrer des différences dans les habitudes alimentaires entre les deux types de communautés (ceux ayant leurs activités principaux dans (i) la pêche et (ii) non dans la pêche mais dans l'agriculture/ élevage ou autres.

Le contexte démographique permet de situer l'espace d'étude à travers ses caractéristiques démographiques et de décrire la population-mère sur laquelle se pratique l'échantillonnage. Les données démographiques issues du Recensement Général de la Population et de l'Habitation de février 2002 (RGPH3) indiquent que la commune de Grand-Popo est la moins peuplée parmi les quatre communes alors que celle de Sèmè-Kpodji se classe comme la plus peuplée. La commune de Sô-Ava comprend les ménages de taille plus élevée que les autres communes. La taille moyenne des ménages au niveau de cette dernière commune est de 5,2 contre 4,5 pour la moyenne des quatre communes.

Tableau 2 : Caractéristiques démographiques des communes de la zone d'étude

Communes	Population en 2002	Nombre de ménage	Taille moyenne	Nombre d'arrondissements
Grand-Popo	40 335	9 633	4,2	7
Ouidah	76 555	18 953	4,0	10
Sèmè-Kpodji	115 238	25 420	4,5	6
Sô-Ava	76 315	14 594	5,2	7

Ensemble 4 communes	308 443	68 600	4,5	30

INSAE. RGPH3

Tableau 3 : Répartition géographique de la population des quatre communes et de leurs ménages par catégorie socioéconomique.

COMMUNES	*ARRONDISSEMENTS*	Total population	*Nombre de ménages*	*Ménages agricoles*	*% Ménages agricoles*
GRAND POPO		**40335**	**9633**	**3855**	**40.02%**
	Adjaha	5787	1469	1003	68.28%
	Agoué	9589	2252	428	19.01%
	Avlo	3416	886	68	7.67%
	Djanglanmey	5200	1069	841	78.67%
	Gbéhoué	4453	1000	439	43.90%
	Sazué	3422	752	638	84.84%
	Grand Popo	8468	2205	438	19.86%
OUIDAH		**76555**	**18953**	**1917**	**10.11%**
	Avlékété	5636	1337	183	13.69%
	Djègbadji	4170	1266	41	3.24%
	Gakpé	4776	1091	586	53.71%
	Ouakpé Daho	2941	772	64	8.29%
	Pahou	14436	3244	210	6.47%
	Savi	6949	1781	589	33.07%
	Ouidah I	8188	1911	83	4.34%
	Ouidah II	12856	3289	111	3.37%
	Ouidah III	9880	2479	108	4.36%
	Ouidah IV	6723	1788	42	2.35%
SEME-PODJI		**115238**	**25420**	**3662**	**14.41%**
	Agblangandan	*30716*	*5963*	*313*	5.25%
	Aholouyeme	*8844*	*2058*	*637*	30.95%
	Djregbe	*10527*	*2202*	*432*	19.62%
	Ekpe	*34917*	*7653*	*948*	12.39%
	Tohoue	*17652*	*4022*	*542*	13.48%
	Seme Podji	*12582*	*2722*	*790*	29.02%
SO-AVA		**76315**	**14594**	**2636**	**18.06%**
	Ahomey Lokpo	*8760*	*1902*	*1454*	76.45%
	Dékanmé	*4241*	*834*	*59*	7.07%
	Ganvié I	*10280*	*1906*	*5*	0.26%
	Ganvié II	*10288*	*1615*	*3*	0.19%
	Houédo-Aguékon	*10607*	*2010*	*105*	5.22%
	Vekky	*22165*	*4217*	*20*	0.47%
	So-Ava	*9961*	*2150*	*945*	43.95%

Source : INSAE - RGPH3 (2002)

Tableau 4 : Arrondissements échantillonnées

Commune	Arrondissement	Charactéristiques d'arrondissement
Grand-Popo	Adjaha	68,28% des ménages agricoles
	Agoué	19,1% des ménages agricoles
Ouidah	Avlékété	13,69% des ménages agricoles
	Savi	33,07% des ménages agricoles
Sèmè-Kpodji	Aholouyèmè	30% des ménages agricoles
	Ekpe	12,39% des ménages agricoles
Sô-Ava	Ahomey Lokpo	76,45% des ménages agricoles
	Houédo-Aguékon	5,22% des ménages agricoles

La méthode du bouteille a été utilisé pour prendre de façon aléatoire les ménages à enquêtés. L'échantillonnage ne permettant pas dans certains villages d'arriver au nombre voulu a du être élargi à trois autres arrondissements.

Après l'échantillonnage les deux équipes de terrain ont commencé le travail dans une des communes. La zone du Littoral (Grand Popo et Ouidah) a été prise en compte pour une équipe et la zone lagunaire (Sémé Kpodji et Sô-Ava) par l'autre. Deux superviseurs ont assisté entre autres les équipes avec la mobilisation (crieur publique et chef de village) de la population. Les données ont été saisies en Epi-info pour permettre une auto contrôle. Les analyses ont été faites en utilisant le programme Excel. Pour les analyses des données anthropométriques et le programme anthropo a été utilisé.

Les mesures anthropométriques prises au cours de cette étude sont la taille ou la longueur et le poids. Les enfants et leurs mères ont été mesurés par des enquêteurs bien formés.

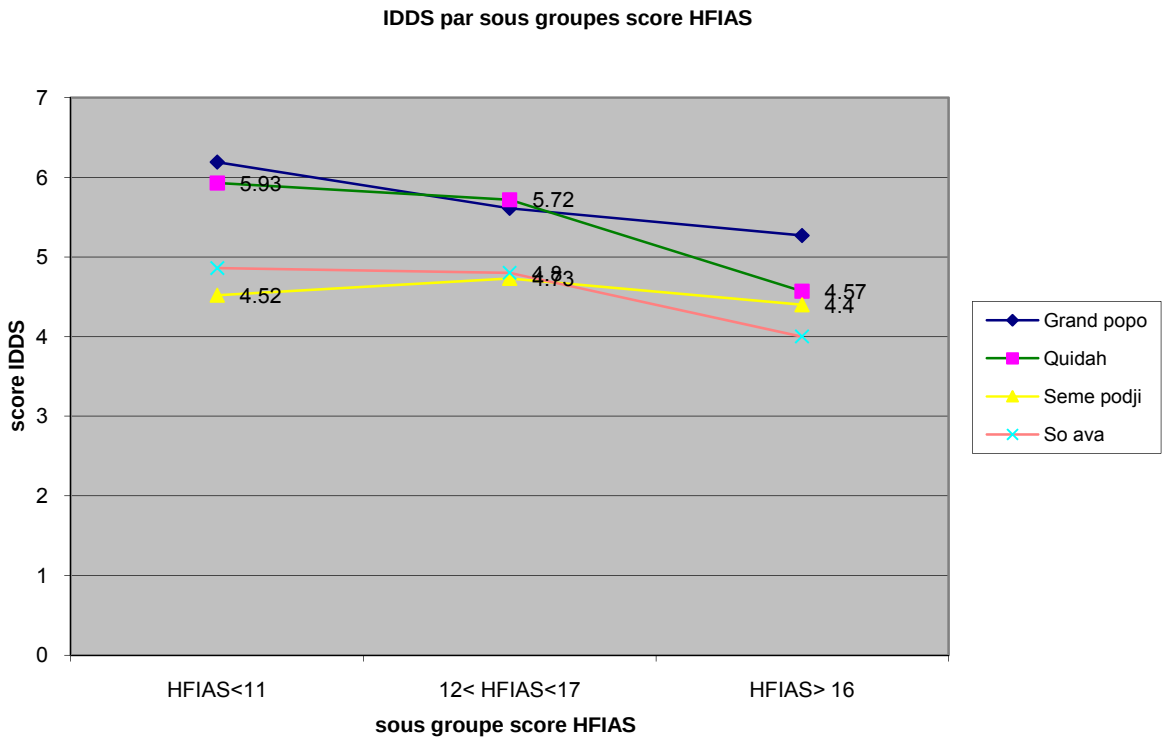
Taille/longueur : La taille a été prise sur les enfants de plus de 2 ans et sur leurs mères à l´aide d´une microtoise de type STANLEY (mabo 04-116, 2 mètres). La microtoise est fixée à un mur vertical et plat à 2 mètres au-dessus du sol. La longueur a été prise sur les enfants de moins de 2 ans à l´aide d´un infantomètre. Les mesures ont été faites à 0,1 cm près.

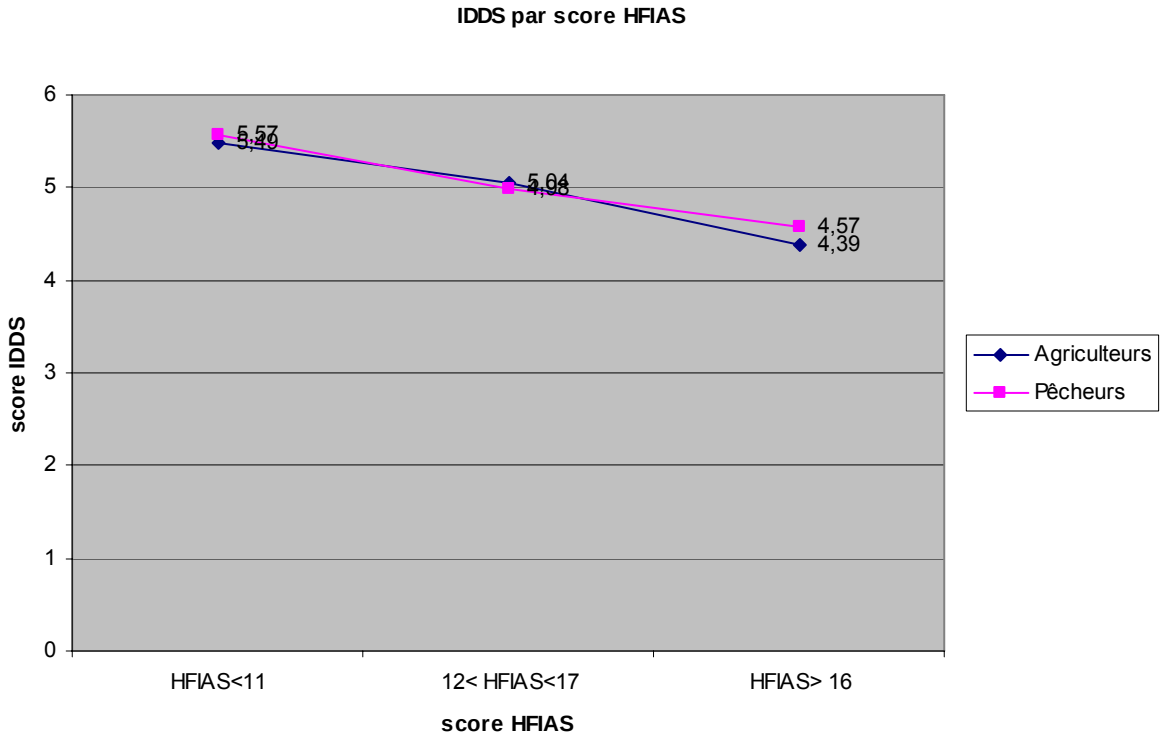
Poids : Le poids a été mesuré a l'aide d'une balance pèse personne portable de type SECA de charge maximale 150kg et de poids minimal 10kg. La lecture a été faite à 0,5kg près. Les enfants de plus de deux ans et les mères on été mesurés en position debout avec un minimum de vêtements. La balance a été étalonnée pour chaque séance de mesure à l'aide d'un poids standard de 20kg pour les enfants de plus de 2 ans et de 40 kg pour les mères. Le poids a été mesuré sur les enfants de moins de deux ans a l´aide d´une balance pour bébé de charge maximale 25kg et de précision 5g.

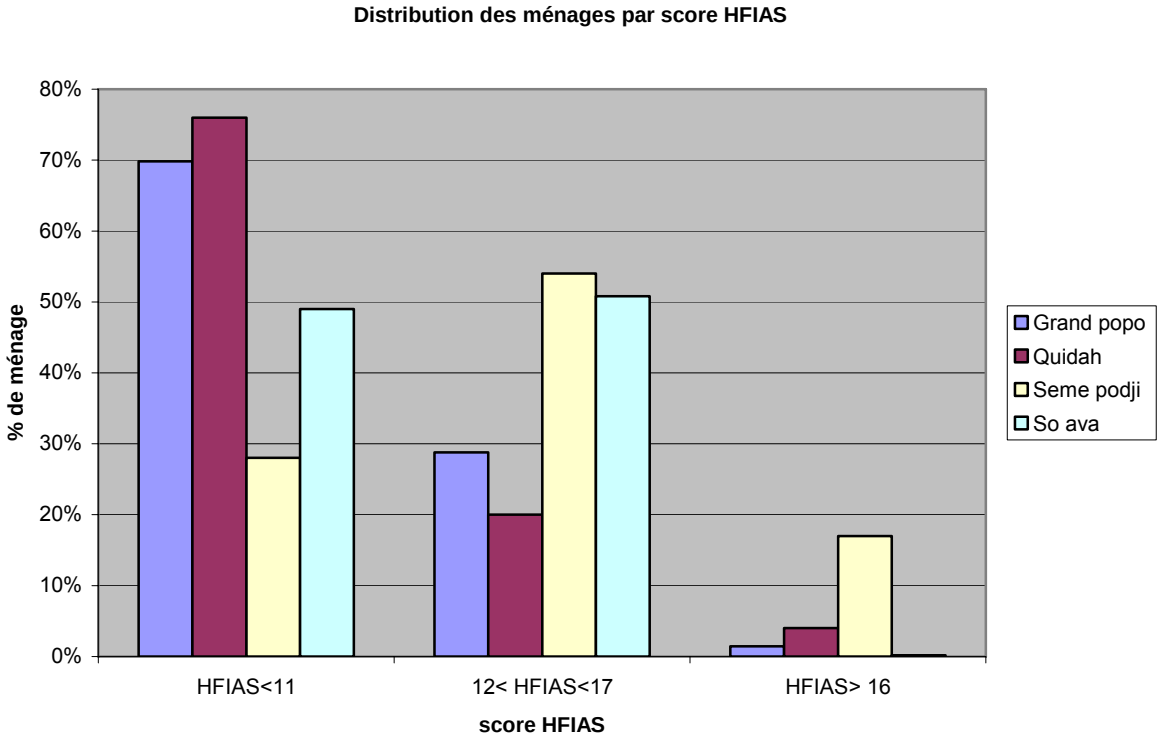
Les mesures anthropométriques ont servi à calculer les prévalences de l'émaciation et du retard de croissance chez les enfants et les prévalences de la malnutrition chronique et de l'obésité chez les femmes en âge de procréer.
Après entrée des données en epi info et auto contrôle des entrées nous avons transféré les données en Excel pour vérifier les fiches avec les nombres d'entrés par commune et arrondissement. Un nombre d'entrée ont été éliminé et l'échantillon sur laquelle des analyses statistique ont été faites en SPSS est de 2917.

Quelques résultats préliminaires d'analyse d'une saison *(analyses sur les deux saisons sont en cours).*

Les graphiques suivantes présentes les résultats de la comparaison par commune et par groupe socio économique des score IDDS par catégorie de moindre, moyenne ou plus de sécurité alimentaire. Le nombre de ménage dans chaque groupe de sécurité alimentaire sont présentés dans le tableau ci-dessous.




IDDS par score HFIAS
score IDDS
6
5
4
3
2
1
0
5,57
5,49
5,04
4,98
4,57
4,39
HFIAS<11
12< HFIAS<17
HFIAS> 16
score HFIAS
Agriculteurs
Pêcheurs


Distribution des ménages par score HFIAS
% de ménage
80%
70%
60%
50%
40%
30%
20%
10%
0%
HFIAS<11
12< HFIAS<17
HFIAS> 16
score HFIAS
Grand popo
Quidah
Seme podji
So ava

	Grand popo	Quidah	Seme podji	So ava
HFIAS<11	70%	76%	28%	49%
12< HFIAS<17	29%	20%	54%	50,8%
HFIAS> 16	1%	4%	17%	0,2%

Communautés et ménages appuyés par le projet de réduction de la vulnérabilité au VIH/SIDA.

Deux communautés ont été appuyées depuis plus d'un an. Les activités d'appui sont : (i) actions de lutte contre le VIH/SIDA, (ii) actions d'appui à la mise en place d'un fonds auto renouvelable pour la promotion de la diversification des Moyens d'Existence aux ménages très vulnérables au VIH/SIDA.

Il s'agit de deux communautés sur la façade maritime : la communauté de HIO dans la commune de Quidah, arrondissement d'Avlékété et la communauté de Ayiguinnou dans la commune de Grand Popo, arrondissement d'Agoué.

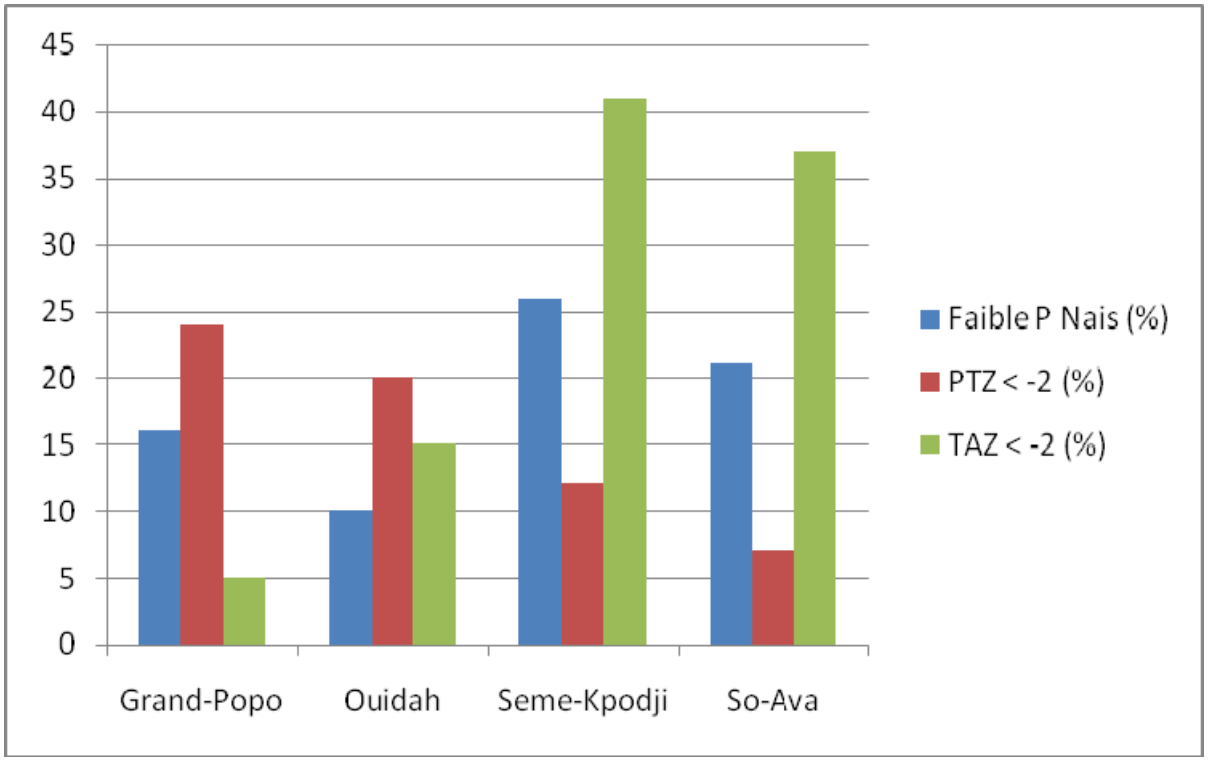
Tableau 5: Scores pour les bénéficiaires et non bénéficiaires de Hio et Ayiguinnou

Commune	Arrondissement	Village	
Quidah N= 785 HFIAS= 7,71 IDDS= 5,83 Moyenne Taille ménage= 5,30 Moyenne Nombre enfants= 1,61	**Avlékété** N= 437 HFIAS= 8,01 IDDS= 5,58	**Hio** N= 162 HFIAS= 8,95 IDDS= 5,53	**Bénéficiaires N= 30** M taille ménage= 6,00 M Nombre enfants= 2,90 HFIAS= 7,77 IDDS= 5,67 **Non Bénéficiaires N= 132** M taille ménage= 5,00 M Nombre enfants= 1,45 HFIAS= 9,16 IDDS= 5,49
Grand Popo N= 759 HFIAS= 7,68 IDDS= 6,03 Moyenne Taille ménage= 5,41 Moyenne Nombre enfants= 1,84	**Agoué** N= 404 HFIAS= 7,21 IDDS= 5,78	**Ayiguinnou** N= 142 HFIAS= 8,90 IDDS= 6,03	**Bénéficiaires N= 24** M taille ménage= 5,08 M Nombre enfants= 2,08 HFIAS = 4,76 IDDS= 5,82 **Non Bénéficiaires N= 118** M taille ménage= 4,98 M Nombre enfants= 1,70 HFIAS= 7,89 IDDS= 6,03

Les ménages appuyés, comparés à ceux non directement appuyés ont des scores HFIAS qui sont significativement différent et meilleures : le score HFIAS est meilleur que la moyenne de l'arrondissement et un peu plus élevé que la moyenne de la commune pour Hio. Le cas d'Ayiguinnou, les bénéficiaires ont un score HFIAS meilleur de la moyenne de l'arrondissement et de la commune. La diversité alimentaire ne diffère presque pas. Les scores des ménages dans la période de basse production devraient permettre confirmer le constat. Il est aussi suggéré de faire l'interprétation sur les deux saisons et sur un nombre d'indicateur de bien être pour interpréter avec plus de précisions ces résultats.

Données anthropométriques
Enfants de moins de 3 ans.
Le tableau 6 ci dessous résume les données anthropométriques mesurées sur les enfants de moins de 3 ans dans les différentes communes. L'analyse de ce tableau montre que l'âge moyen des enfants varie entre 15,6 (Sô-Ava) et 17,9 mois (Sèmè-Kpodji). Dans les 4 communes, le poids moyen à la naissance des enfants est de 3 kg. Les résultats montrent également que la prévalence du faible poids à la naissance varie entre 10 et 26 %, celle de l´émaciation entre 7 et 24 % et celle du retard de croissance entre 5 et 41 %. Ces résultats sont en conformité avec ceux de l'Enquête Démographique et de Santé (EDSB, 2006). Les prévalences du faible poids à la naissance, de l´émaciation et du retard de croissance par commune sont résumées dans la figure. Prévalence du faible poids à la naissance (Faible P Nais), de l´émaciation (PTZ < -2) et du retard de croissance (TAZ < -2) par commune.

Tableau 6: Enfants de moins de 3 ans.



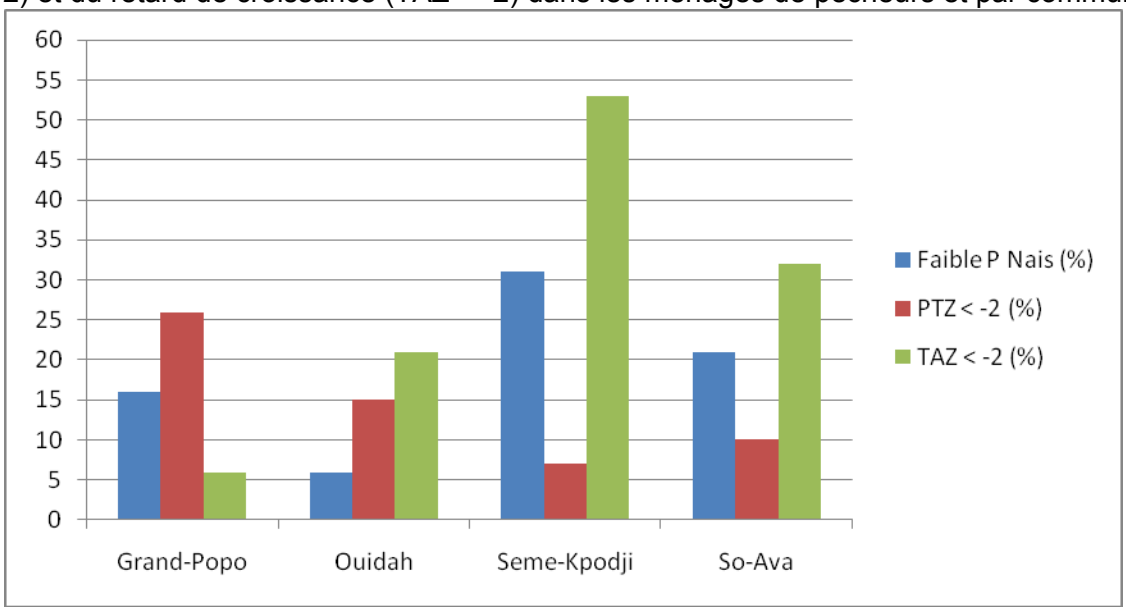
Faible P Nais (%) = Prévalence du faible poids a la naissance
PTZ (%) = Prévalence de l'émaciation
TAZ (%) = Prévalence du retard de croissance

Ce graphe montre que les communes de Sèmè-Kpodji et de Sô-Ava où se pratique uniquement la pêche lagunaire ont les plus forts taux de faible poids à la naissance et de retard de croissance. L´analyse de variance montre que le poids à la naissance des enfants dans la commune de Ouidah est très supérieur à celui des enfants dans la commune de Sèmè-Kpodji avec une différence presque significative (p=0,06) (Tableau N…). Quand aux communes de Grand/Popo, Sèmè-Kpodji et So-Ava, la différence entre les poids à la naissance n´est pas significative.

Pour ce qui concerne le retard de croissance, il n´y a pas de différence significative entre Sèmè-Kpodji et So-Ava tandis que la différence entre Grand-Popo et Ouidah d´une part, et entre Grand-Popo, Ouidah et les deux autres communes d´autre part est très significative (p<0,05).

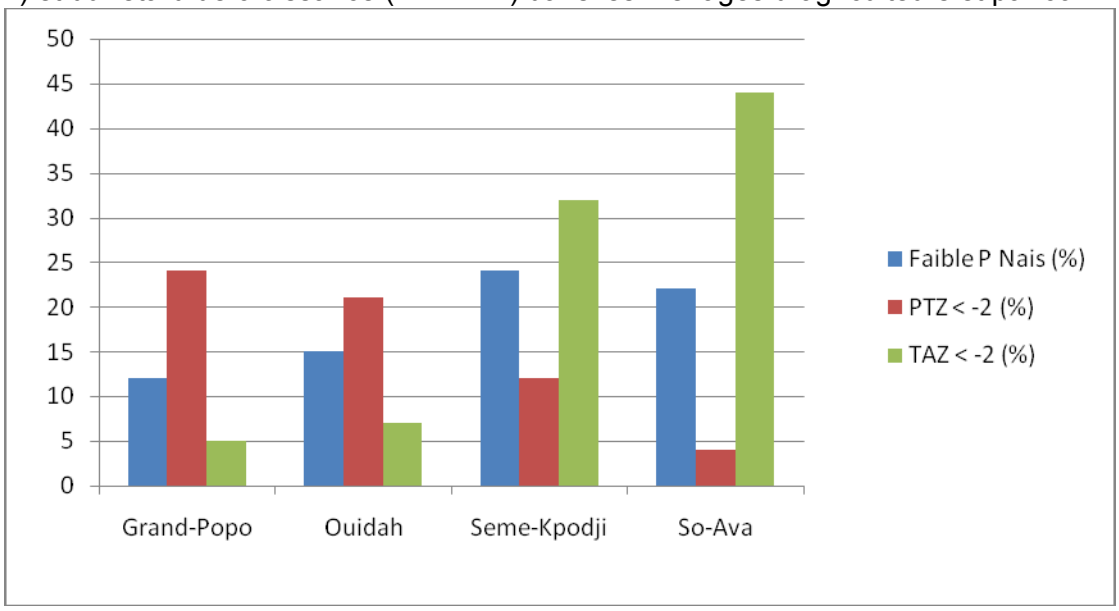
Les figures suivantes montrent les prévalences des différentes formes de malnutrition selon les catégories socio-économiques.

Tableau 7: Prévalence du faible poids à la naissance (Faible P Nais), de l´émaciation (PTZ < -2) et du retard de croissance (TAZ < -2) dans les ménages de pêcheurs et par commune.



Faible P Nais (%) = Prévalence du faible poids a la naissance
PTZ (%) = Prévalence de l'émaciation
TAZ (%) = Prévalence du retard de croissance

Tableau 8: Prévalence du faible poids à la naissance (Faible P Nais), de l´émaciation (PTZ < -2) et du retard de croissance (TAZ < -2) dans les ménages d´agriculteurs et par commune.

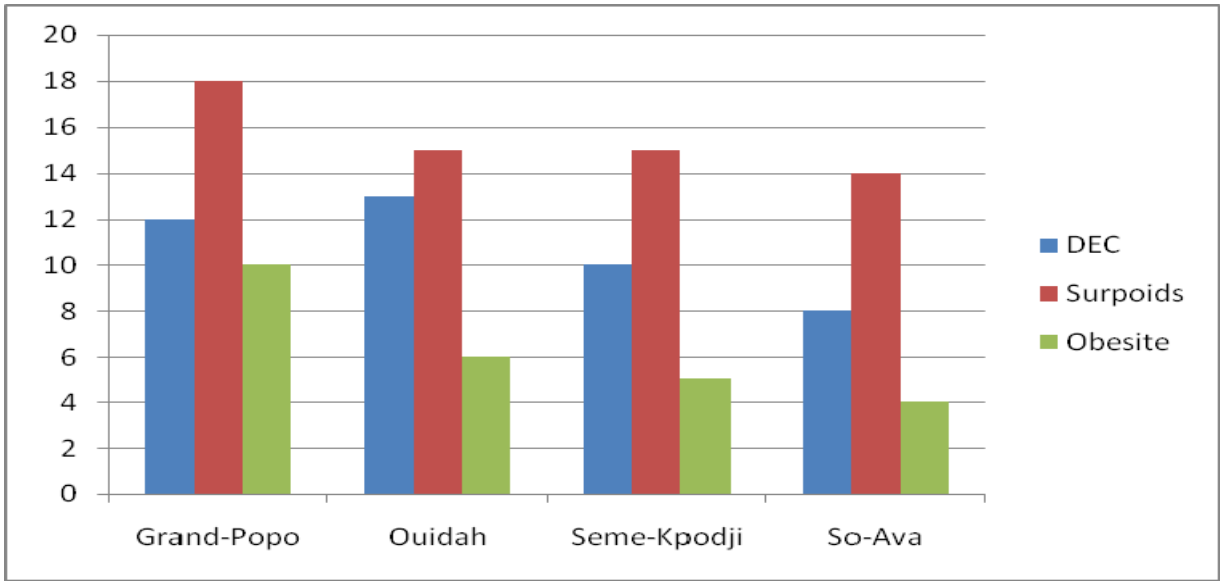


Faible P Nais (%) = Prévalence du faible poids a la naissance
PTZ (%) = Prévalence de l'émaciation
TAZ (%) = Prévalence du retard de croissance

L´analyse de ces graphes montre la même tendance qu'au niveau des différentes communes en général. Il n´y a pas des différences significatives entre pêcheurs et agriculteurs au niveau des communes de Grand-Popo et de Ouidah. Par contre l´émaciation au niveau des pêcheurs est plus élevée qu´au niveau des agriculteurs dans la commune de Sô-Ava ($p<0,05$). A Sèmè-Kpodji le retard de croissance est significativement plus élevé au niveau des pêcheurs comparativement aux agriculteurs alors qu´ à Sô-Ava, il est plus élevé au niveau des agriculteurs comparativement aux pêcheurs ($p<0,05$). Ces résultats suggèrent des différences au niveau des groupes socio-économiques. Les résultats de la deuxième phase de l'étude permettront de voir si ces tendances se confirment.

Les valeurs obtenues expriment bien le problème du double fardeau nutritionnel auquel sont confrontés les pays en voie de développement. Le déficit énergétique chronique serait dû à une alimentation inadéquate et aux maladies tandis le surpoids et l'obésité seraient dues à un mauvais style de vie réduisant les dépenses énergétiques et augmentant la sédentarité sans oublier aussi la consommation de beaucoup de graisse dans l'alimentation. Ceci conduit à des risques élevés de maladies cardio-vasculaires. On n'observe pas une grande différence au niveau des communes en matière de prévalence du déficit énergétiques chronique et du surpoids. Toutefois, le taux élevé d'obésité à Grand-Popo est probablement lié à une différence dans les habitudes alimentaires des populations et au fait que Grand-Popo affiche les meilleurs scores de sécurité et de diversité alimentaire.

Tableau 9: Prévalence du déficit énergétique chronique (DEC), du surpoids et de l'obésité chez les femmes dans les différentes communes.



DEC = Déficit énergétiques chronique (Indice de masse Corporelle (IMC) < 18,5)
Surpoids = 25 ≤ IMC < 30
Obésité = IMC ≥ 30

Les prévalences de la malnutrition au sein des enfants et des femmes des communautés de pêcheurs étudiées sont élevées. Cette situation se trouve aggravée par la vulnérabilité au VIH/SIDA de ces communautés. Des actions doivent être menées pour améliorer la sécurité alimentaire et nutritionnelle des enfants et des mères qui sont les personnes les plus affectées par le VIH/SIDA.

Résultats attendus
- Restitution des résultats au partenaires et Ministères.
- Appui aux communes pour élaboration des plans d'actions et négociation d'intégration des indicateurs dans PN ; meilleures ciblage des ménages très vulnérable et poche de pauvreté pour appui intégré : santé, production, VIH/SIDA.

C. Institutional change to increase investment in viable support options

1. Benin: (i) Processus politique, (ii) Approche chaîne valeur

Unité de Coordination Nationale (UCN)/ Département de pêche.

(i) Processus politique
- Intégration des acteurs du secteur dans les initiatives du CNLS/PNLS.

- Etude KAP.
- Appui aux communautés (différents types de pêcheries) à mettre en œuvre une réponse communautaire ; accompagnement et triangulation avec les acteurs du niveau méso.
- Capitalisation: production manuelle de planification.
- Lobbying niveau national par la Direction des pêches.
- Formulation d'une stratégie de lutte contre le VIH/SIDA pour le secteur et un plan d'actions triennal de lutte contre le VIH/SIDA.
- Diffusion du plan auprès du CNLS, PNLS et ses partenaires et agences spécialisées
- Négociation des demandes de financement.

Opportunités

- Les secteurs pêche, élevage et agriculture sont ciblés par le CNLS et sont invités à préparer un plan.
- Agences spécialisées prête à financer et accompagner le secteur et ont été sensibilisé sur les spécificités du secteur et conscients que trop peu d'actions a été mené dans les communautés de pêches.
- Appui technique pour développer un plan stratégique disponible pour les points focaux et agents du CNLS et PNLS.
- Suivre la logique du cadre national de lutte contre le VIH/SIDA.

Contraintes

- Le besoin d'une réponse multisectorielle n'est pas intégré dans la logique du cadre national.
- Le besoin d'appuyer le secteur en suivant la logique de la nature de la susceptibilité et vulnérabilité des communautés de pêcheurs (la mobilité et les migrations, la nature à risque de l'activité halieutique et la perception du risque, la pauvreté et la marginalisation économique et sociale, le manque de cohésion sociale, le manque d'accès aux services et les pratiques de multiple partenariats occasionnels et réguliers) demandent pour certaines interventions, un travail transfrontalier synchronisé.
- La Direction des pêches dépend d'un Ministère et la procédure de financement dépend de l'avancement du Ministère.
- La visibilité de la Direction des pêches dans les réunions est limitée par l'information qui passera par le Ministère de tutelle et ne descendra pas nécessairement au niveau des directions techniques.

Leçons

- S'informer sur les mandats et les possibilités de financement auprès des différents bailleurs et combiner des interventions: VIH/SIDA, Appui, Mitigation, Appui économique (IMF, formation et développement organisationnel).
- Saisir les opportunités des programmes d'appui aux filières pour renforcer les initiatives de diversification des ME pour les communautés de pêches.
- Informer le Ministre sur les démarches en cours et faire passer touts les correspondances par les points focaux.

- Documenter la dynamique migration et mobilité dans le secteur pour justifier des approches spécifiques et transfrontalières pour le secteur.

(ii) Approche chaîne valeur: Lier chaîne valeur et dynamique d'intervention économique avec dynamique d'intervention santé

Unité de Coordination Nationale (UCN)/ Département de pêche (Bénin).
NIOMR (Nigeria) + Lagos SACA.

Chain actors are mobile and migrating and difficult to reach (cartography will clarify).
Instead of imposing a collective action model of other sectors or imposing group dynamics specific to HIV/AIDS control we suggest using the logic and dynamic of the chain organisation. Test pathways for intervention to assist Prevention, treatment and care and mitigation work with all actors and reach out / difficult to reach zones and actors.

Combine: Collectors + traders model & Community dynamic model.
Tester et comparer des options dans la combinaison de :
- Groupe chaîne GIE : questions upgrading.
- Formation des pairs éducateurs/trices : questions VIH/SIDA.

Politique + Institutions :
Restitution chaîne valeur au niveau national avec spécialiste du secteur et du Ministère et les partenaires techniques + spécialiste de la santé et CNLS et ces partenaires.

2. Cameroon and Nigeria: Baseline data and information on dynamic of HIV/AIDS; inform policies and strategic partners (best institutional set up) and sector strategy formulation.
Regional: (ii) Cartography of migration and mobility; Partnerships: PPSAC, OCEAC, WAHO, CPCO.

2.1 Base line Cameroon: KAP and dynamics
INRA Limbé.

Recent studies elsewhere in the East and Central Africa (WFP, 2007, FAO, 2003) have demonstrated that the fisheries sector is highly vulnerable to the HIV/AIDS epidemic. Unfortunately, this sector is not in the picture as a highly vulnerable group in the national response to HIV/AIDS therapy and prevention in Cameroon.

The fisheries policy that provides the operation framework for the sector is silent on this issue in its guiding principles and priorities as well as in the objectives and strategy. Information on the level of prevalence and spread of the disease in fishing communities is unavailable. Since the creation of the National AIDS Committee in 1996, most works have centred on the population inland with the fishing communities more or less neglected. In an attempt to reach the rural communities, the National AIDS Committee, established Local AIDS Control Committees (LAC) in many villages nationwide (in

2003) and this included a few marine artisanal marine fishing communities. These LAC's had as goal to sensitise the rural population on HIV/AIDS but did not last long due to financial constraints.

Most fishing communities lack health centres and the few existing ones are poorly equipped and staffed. Recently, a few Health centres in some semi-urban fishing communities (e.g. Limbe, Idenau, and Londji) have been improved and provided with HIV/AIDS counselling and testing facilities. Despite this effort the level of consultations are very low and involving pregnant women most often since government has made free screening almost compulsory for pregnant women.

NGOs and projects in the HIV/AIDS sector too have not targeted the fisheries sector in their plan of activities. The few interventions are fragmentary and capitalised on sensitisation, and the distribution of condoms (Reach out, 2007; AIDSIDA, 2005, LUKMEF, 2006 etc). Some institutions and projects like CARE Cameroon, and Sub-regional project (PPSAC) in their studies on the epidemic on highway axes and riverine populations have carried out voluntary screening interventions that have touched in part some fishing communities (PPSAC, 2005; CARE, 2008 personal comm.) and preliminary studies by the Ministry of Health too partly touched the community in Ndian (MINSANTE, 2007) in the Southwest province.

Churches have been very active in sensitisation through sermons in most communities. The Apostolic Church has moved a step further with establishment of counselling and testing facilities in two fishing communities (Cap Cameroon and Youpwe) around Douala.

Objectives of the study

To provide, base-line information on HIV/AIDS in fishing communities in Cameroon through studies on KAP (knowledge, Attitude and Practice) and on the Dynamics of the epidemic.

KAP Studies

The specific objectives are threefold:

i. Assess the level of knowledge of the fishing communities on HIV/AIDS (knowledge of the disease, transmission, prevention methods etc).
ii. Appreciate the attitudes and practices of these communities with respect to HIV/AIDS (use of condom with partners, Obstacles in the use of condoms, Attitude in case of STD infection etc).
iii. Analyze the relationship between livelihood strategies and vulnerability to HIV/AIDS (risks associated with sex workers, mobile traders etc).

Studies on Dynamics of HIV/AIDS in fishing communities

The specific objectives are fourfold:

i. Examine the nature of vulnerability to HIV/AIDS in marine small-scale fishing communities.

ii. Understand how access to natural, physical and social resources in small-scale marine artisanal fishing communities regulates successful livelihood outcomes and how this influences vulnerability and risk behaviour.
iii. Understand how formal and informal institutional processes play a role in mediating access to the resources and influence vulnerability and risk behaviour.
iv. Identify the socio-economic implications of the above on marine artisanal fishing communities and their long-term future.

A multidisciplinary team of Researchers from the CRHOL, MINEPIA, Reach-Out, AIDSIDA (NGOs) and MINSANTE (the Health Department) undertook the study. This started with a review of documents prior to selecting the study sites and conducting the fieldwork. The preparatory phase included visits to the stakeholders in the Provincial and district level administrative centres and meetings with the experts on the study team.

1. Literature review
The literature review focused on background information on the coastal fishing communities: characteristics, livelihood strategies and existing interventions in relation to HIV/AIDS. Documentation analysed included: fisheries reports and scientific publications from CRHOL, FAO, MINEPIA, and the GCLME; Health/HIV/AIDS reports, from FAO, OCEAC (PPSAC project), GTZ, and NGOS (CARE Cameroon, Reach-OUT, AIDSIDA, LUKMEF) who had activities in the fisheries sector, as well as information available on the internet. This review work was the basis for the mapping of stakeholders involved in the fisheries sector and in HIV/AIDS control.

The selection of the study sites and the methodology guidelines for the fieldwork, study design including analysis and interpretation of data, and of secondary data on interventions in the sector were specified based on the information from the review. This review was accompanied by consultations with target institutions at the national and local levels including MINEPIA, NAC and NGOs for validation of information.

2. Target communities
Marine small to medium scale fishing communities were defined as consisting of all those who derive their livelihood from the coastal zone engaged in marine fishing, marketing, processing as well as support services. The target communities selected were 10 fishing communities. The selection was based mainly on: access to, region, nature (urban, semi-urban, rural), population density, composition (e.g. the presence of immigrants etc), ethnie and diversity of fishing activities. For dynamics emphasis was put on the region, proximity of testing and counselling facilities, the nature and the presence or absence of past works in the community. The site selection matrix is given below in table 2 and the map of the sampling sites in figure 1.

In each of the divisions along the Cameroon coastline villages were selected based on a number of criteria. Ndian, Fako, Wouri, Sanaga Maritime and Ocean Divisions the following sites were selected: Idenau and Dockyard in Fako division, Bekumu, Njangassa in the Ndian diviion, Cap Cameroon and Youpwe in Wouri division, Mbiako

and Yoyo in the Sanaga and Maritime division and Londi, Boa Manga in the Ocean division.

These communities are composed of nationals and non-nationals (Benineese, Nigerians, Ghanaians, Togo, Equatorial Guinea, Mali, Niger, Chad) with diversified livelihood strategies. . The study involved different professional groups living in these fishing communities with special attention given to gender issues and youths. The professional groups comprise: Fishermen, fishmongers, fish smokers, fish smokers, youths, sex workers, merchants, traders and transporters.

3. Sampling

Sampling for KAP studies was carried out in all 10 fishing communities. The size of the sampled population was 3-10% in each locality and depended on the population of the area. The persons interviewed were selected at random (stratified sampling) within members of each community with considerations given to gender issues and youths. High risk groups were identified: migrant fishermen and mobile socio professional groups such as mobile merchants, brothel holders and professional sex workers and were included in the sample.

Fisheries officers and market officials were interviewed as resource persons and focus groups interviews were established in accordance with the number of risk groups. For dynamics the dynamics studies two communities out of the ten sampled communities were selected: Idenau and Londji.

Figure 1: Map of coastal zone showing fishing camps (Modified after Njifonjou, 1995).

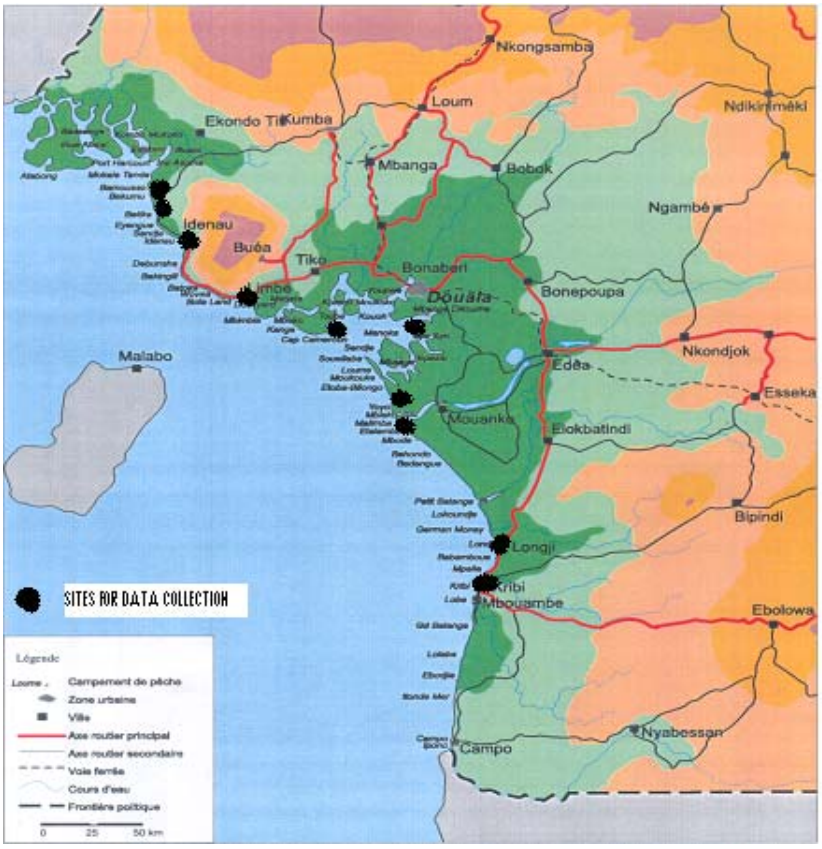


Table 2: Site selection matrix.

Site	Selection criteria							
	Region	**Scale fishing**	**Nature**	**Economy**	**Proximity services**	**Fishing activities**	**Ethnic**	**Previous works**
Bekumu	West	Very high	Rural	Fishery based	Very far	Wide range	Very diverse	Nil
Njangassa	West	High	Rural	Fishery based	Very far	Wide range	diverse	Nil
Idenau	West	High	Rural	Partly fishery based	Near	Wide range	Very diverse	Yes
Limbe Dockyard	West	high	Semi-urban	Partly fishery based	Very close	Wide range	diverse	Yes
Cap Cameroon	North	high	Rural	Fishery based	Very far	Wide range	Very diverse	Nil
Youpwe	North	Very high	Semi-urban	Fishery based	Very close	Wide range	less diverse	Yes
Mbiako	North	high	rural	Fishery based	Very far	Widen range	diverse	Nil
Yoyo	North	Very high	rural	Fishery based	far	Wide range	Very diverse	Nil
Londji	South	very high	Rural	Fishery based	Near	Wide range	diverse	No
Boa Manga	South	high	Semi-urban	Partly fishery based	Very close	Wide range	Less diverse	Yes

2.2 Base line Nigeria: lake Chad basin (Borno state) and Coastal zone (Lagos state).

Borno state :
NIFRI Dr Ovie + Maiduguri University (Dr Paté + Dr Dunli).

SACA Borno:
Dr Liman Musa.

Little information is available on the prevalence and management of HIV/AIDS in fishing communities in Nigeria. A review of literature on existing interventions and response strategies in the country from 1999 to date reveal that not much attention has been paid to the fishing communities in the national HIV/AIDS response plan. In fact, fishing communities, notwithstanding their peculiarities, have been simply grouped among disadvantaged groups in the *National Strategic Framework on HIV/AIDS, 2005-2009*.

Fishing communities in the country vary from those in the coastal areas in the southern part to those that depend on inland water ways and lakes like the major rivers of Niger, Benue, etc and big lakes like the Lake Chad which is an international inland water

reservoir. The Lake Chad is an internationally recognized inland water reservoir shared by Nigeria, Niger, Cameroon and Chad Republics. The Lake is a natural resource that provides enormous socio-economic opportunities to the host nations. The focus on the fisheries aspect however has obscured somehow the social issues and the picture of the communities living and working in the basin is characterized by overall lack of facilities and investment in public services and security.

On the Nigerian side, the Lake provides an active source of economic engagement to a large population and by extension supports the agricultural and nutritional base of the nation. Today, the Lake Chad Basin is well known for its abundant fish trade which contributes significantly to the economy of the nation. The fish and fish trade in this region is huge and indeed support the livelihoods of millions of riparian communities and the wider society. At a production rate of about 70,000 metric tonnes per annum, the region accounts for about 35% of the total inland water fisheries production of about 200,000mt in the country, thereby making it the single most important inland water fisheries ecosystem in Nigeria. Currently, the fish trade is worth an annual value of about N3 billion (about US$25m) first sale value. An average of about 20 (18-wheels) trucks per week convey processed fish products from the region (Doro Baga International Fish Market) to Southern Nigeria fish retail markets, a distance of over 1000km. The fisheries, therefore, contribute not only to food and nutritional security but also to employment and income generation.

Equally, the region supplies huge agricultural outputs like rice, wheat, onions, corn, etc to the rest of the country and even beyond. Naturally, a region of this nature is bound to attract a large migrant population from far and near. In the LCB, apart from the indigenous population, there is a high migrant population engaged in different aspects of fishing, commerce and general agriculture. The total population in the immediate LGAs surrounding the banks of the Lake on the Nigerian side are said to be over one million.

However, literature from fishing communities with similar characteristics in other developing countries suggests that this significant source of livelihood and economic/social safety net for the poor is being severely threatened by the HIV/AIDS pandemic largely due to certain peculiarities associated with rural fishing communities. Such peculiarities include, among others, the practice of transactional sex (fish for sex or sex for fish), mobility/migration, alcohol and drug availability, daily cash income and a cultural/religious belief in fatalism. It is now known that the prevalence of STD/HIV/AIDS in fishing communities (e.g. in Uganda, Kenya, Thailand, Indonesia, etc.) is 5-10% (Gordon, 2005; Allison and Seeley, 2004) and sometimes 4-14% (Kissling et al., 2005) higher than the national average. In Nigeria, there is hardly any major comprehensive study undertaken in the fisheries areas to determine the incidence and prevalence of HIV/AIDS in such places. Instead, all references are simply based on the prevalence rates of the states hosting the fisheries sites.

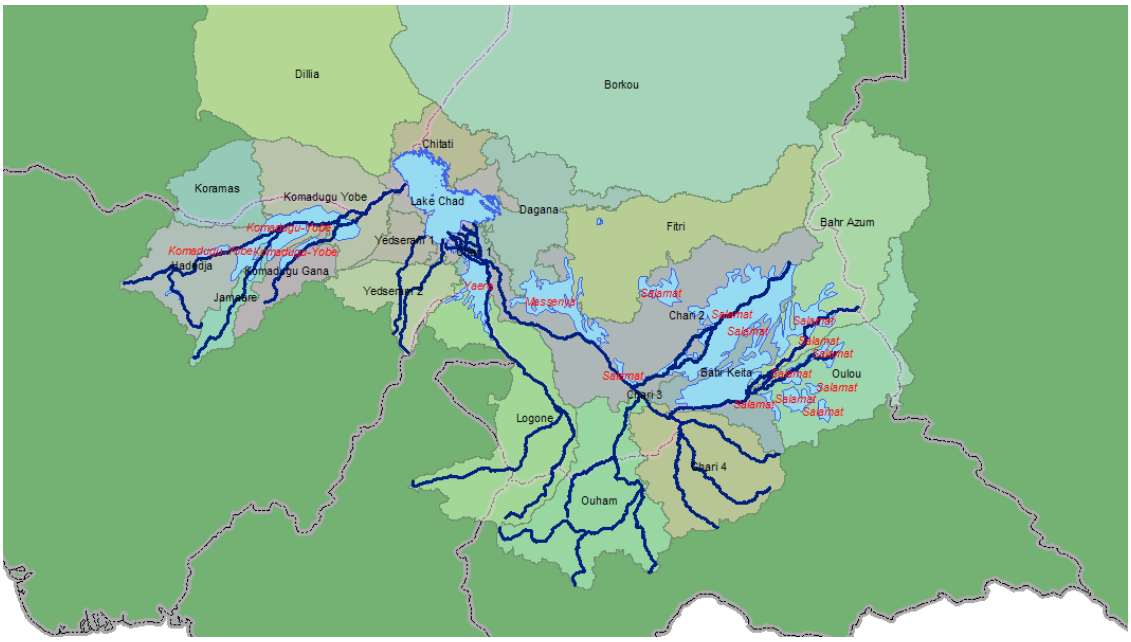
Illnesses or deaths due to HIV/AIDS have had profound consequences on the fisheries sub-sector. Fishers and other fisheries dependent stakeholders afflicted with the

disease have declining ability to engage in physically demanding labour, such as fishing or mobile trading and transport, resulting in loss of income and a descent into further poverty in an environment that is already impoverished. In most of Africa, fishing as a skill is often passed on from parents to children. Death, resulting from the pandemic has, therefore, caused outright loss of this vital transfer of generational skills.

As mentioned few investments have been done in social and basic infrastructure and in the case of the communities selected for this study, they are poorly served with social services like health facilities, educational institutions, potable water, effective security and similar services which contributes to vulnerability. With regards to reproductive health and HIV/AIDS, there is no credible information on the prevalence or any form of response to HIV/AIDS in the zone (Borno state). Apart from the episodic enlightenment activities of the State Action Committee on AIDS (BOSACA) which are often limited to the LGA headquarters due to inadequate resources, there are no indications of any intervention in the scattered communities. Even if there may be, then, such efforts have not been documented by the coordinating agency-SACA or the LGAs. Furthermore, previous national sero-prevalence surveys on HIV/AIDS did not specifically address the peculiar situations in places like the Lake Chad Basin to comprehensively find out the possible rate and its dynamics over the years.

Thus, the purpose of this study is to investigate the level of knowledge and find out common attitudes and prevalent practices to HIV/AIDS and STIs in the sampled areas of the Lake Chad Basin. Specifically, the study finds out the behaviours of community members irrespective of age, sex, status, occupation we should have information on significant differences of age, sex and if possible groups involved in fisheries and fisheries related activities and other groups + according to stated degree of mobility, etc to issues of sexuality; assess their understanding of the different dimensions of HIV/AIDS and STIs and their approach to preventive measures within the context of their individual communities.

Map of the zone



Objectives

KAP: The aim of this study is to assess the knowledge, attitudes and practices (KAP) of the general population in fishing communities on the banks of the Lake Chad in Borno State to HIV/AIDS and other issues that relate to sexuality behaviour. Specifically, the study will:

- Assess the level of knowledge, attitudes and prevalent practices of individuals and other issues of sexuality that are likely to affect vulnerability.
- Understand individual and community perception of HIV/AIDS.
- Understand attitude to HIV/ AIDS and the PLHIV.
- Assess the extent of adoption of preventive measures by community members.

Dynamics

To study the dynamics of HIV/AIDS in fishing communities in the Lake Chad Basin with the view to understanding the intrinsic and extrinsic factors that affect the susceptibility to and vulnerability to the impacts of HIV/AIDS in these communities.

Methodology

Sampling Design: The study used a sample of male and female respondents of reproductive age in the various communities on the banks of the Lake Chad. The sample was drawn based on geographical representation, population characteristics and accessibility in two of the five LGAs that host the Lake. The LGAs are: Kukawa, Marte, Ngala, Monguno and Kala Balge but the study covered Kukawa and Marte LGAs, being the areas that have the higher concentration of acknowledged fisheries activities.

In all, ten fishing communities or settlements spread across the LGAs were purposely selected to represent the whole zone. It is believed that the selected units are fairly representative of the communities in the area of study, particularly in terms of population diversity, nature of residence, fisheries and other economic activities, social life and challenges of survival. The field survey was preceded by sensitization visits to selected communities (10 nos.) undertaken by all project team members and facilitated by the local co-operative union animator. The team met and discussed with Village Heads (***Bulama***) and/or chief of water ***(Sarkin Ruwa***).

Two methodological approaches have been employed to gather data for the project. First, a questionnaire was designed and administered among the sampled population. The second instrument was an interview guide that targeted individual commodity hawkers in the sampled communities. In addition to the two instruments, there were observations of the social surroundings and other behaviours of individuals that were expected to facilitate interpretation of the responses.

Actual field survey commenced in early August and lasted for two weeks. A total of 400 pre tested questionnaire instrument was administered variously in each of the 10 fishing communities. The number of questionnaires administered per community was based on the community's population. A population census report provided by the Borno State Census Office aided in computing the number of households to be surveyed in each

community. See the Tables below for the breakdown of the individual community sampled population.

Table 1: KAP study: Grids, Villages, Population and sample size.

Grid	Fishing communities	Population	No. of Households interviewed/ community	No. of persons interviewed	Tot. No. of samples/ community
A	Bundaran Kwata	844	21	2 IDI; 4FGDs	27
B	Fish dam Dabar Shatta (Kwata)	678 572	16 12	2IDI; 4FGDs 2IDI; 4FGDs	22 18
B	Arinna	206	03	2IDI; 4FGDs	9
	Koloram	1415	36	3IDI; 4FGDs	43
C	Daban Masara	481	10	2IDI; 4FGDs	16
	Dawashi	827	21	2IDI; 4FGDs	27
D	Mbulwa	355	5	2IDI; 4FGDs	11
	Maimassalaci	431	8	2IDI; 4FGDs	14
	Kirenowa	6734	205	1IDI; 4FGDs1	210
	Total		**337**	**60**	**397**

Table 2: Dynamics study: Grids, villages, LGAs, population and number of samples taken.

Grid	Finishing communities	LGA	Population	Key persons interview	Household interview	Focus Group Discussions	Total
A	Bundaran Kwata	Kukawa	844	2	21	4	27
	Fish Dam (Doro Baga)	Kukawa	678	2	16	4	22
	Dabar Shatta Kwata	Kukawa	572	2	12	4	18
B	Arinna	Marte	206	2	01	4	07
	Koloram	Marte	355	2	5	4	11
C	Dabam Masara	Kukawa	481	2	10	4	16
	Dawashi	Kukawa	827	2	21	4	27
D	Maimassalaci	Marte	1415	2	40	4	46
	Mbulwa	Marte	431	2	8	4	14
	Kirenowa	Marte	6734	2	206	4	212
			12,543	20	340	40	400

Questionnaire
The questionnaire used to gather information for this project was based on the UNAIDS general population HIV/AIDS indicator questionnaire. It had the following categories:

- Characteristics of the survey population
- Sexual behaviour
- Knowledge and treatment of STIs
- Knowledge and perception of HIV and AIDS
- Condom availability, accessibility and use
- Stigma and discrimination

Respondents
Three hundred and ninety seven respondents out of the 400 earlier planned participated in the study

Process

- Identifying best institutional setting and key partnerships for HIV/AIDS control interventions and testing/comparing of pathways (Chain interventions; Community interventions).
- Borno SACA holding strategic planning meetings with identified key partners.
- Stakeholder restitution meeting.
- Lobbying at national level.

An identical process is going on in Lagos state with KAP and dynamic study on coastal communities.

3. Cartographie: Corridor Lagos-Abidjan

Titre du projet
Cartographie sur la migration et la mobilité et facteurs de risque pour l'infection au VIH des acteurs de la pêche des zones côtières du Bénin et zones frontalières du corridor Abidjan-Lagos au niveau des frontières entre (i) le Bénin et le Nigeria, (ii) le Bénin et le Togo et (iii) le Togo et Ghana.

Coordination
Unité de Coordination Nationale/ Direction des Pêches.
Consultants:

- Aziable, Amélie
- Legonou, Solange
- Nkouton, Narcisse

PSI Benin (USAID/IMPACT):

- Léger, Foyet
- Cyprien, Zinsou

Objectifs de la recherche

Cette étude documentera la dynamique des acteurs de la pêche qui migrent et sont mobiles, (pêche artisanale avec vérification des situations de risque liés à l'interaction avec la pêche industrielle et le port autonome[1]), l'impact de la migration et de la mobilité sur les relations entre les hommes et les femmes et les services de santé et/ où les services spécifique aux VIH/SIDA.

1. Rendre disponible auprès des décideurs l'information sur l'importance de la migration et de la mobilité des acteurs dans la pêche :
   - La cartographie participative dans les communautés de pêche situées près des frontières couvrant une période de 5 mois permettant de documenter les changements et les mouvements qui sont fréquents au moment des diverses festivités notamment celle de la fin de l'année.
   - Le degré de mobilité, de migration et les risques liés à la mobilité et à la migration le long du corridor[2] (ports de pêche artisanale ; débarcadères, sites de transformations et de commercialisation)
   - Les données de base qui permettront d'apprécier le niveau d'accès de la population du secteur et des communautés, (i) aux services de santé (en général et spécifique au VIH/SIDA), (ii) aux projets (santé et VIH/SIDA) et (iii) la perception des communautés de pêche (par sous groupes, âge, genre) des services de santé.
2. Identifier les facteurs dans la migration et la mobilité (le long du corridor) qui rendent l'accès difficile (blocages socio culturels et institutionnels) aux services de santé et les réponses (aux niveaux national et régional) au VIH/SIDA. Identifier les facteurs qui bloquent l'accès : (i) cycle de mobilité et de migration, (ii) différence d'accès au cours de la migration et durant période de mobilité.
3. Suggérer des services et faire des suggestions sur comment des stratégies existantes envers les groupes mobiles et ceux qui migrent, peuvent prendre en considération le secteur de la pêche (capture et personnes actives dans le secteur post capture) et ceci basé sur les caractéristiques socio démographiques (âge, localisation, état civil, religion, niveau d'éducation, nationalité, etc.).

Pour la cartographie participative, les activités suivantes seront proposées:

- Inventorier les migrants et les pirogues de pêche artisanale avec la précision sur l'équipage, la saisonnalité des déplacements (destination et comment se prend la décision de migration), organisation de rémunération de l'équipage, arrangements locaux pour la commercialisation des produits, système de financement de leurs activités.
- Inventorier les équipes de transformations avec des précisions sur leur composition, la saisonnalité (les destinations et le modèle de prise de décision), organisation des

[1] A vérifier au niveau des acteurs mais aussi à travers des groupes qui pourrions être « bridging » comme professionnels de sexe, transporteurs, clients de bordelles et hôtels/bars et les autres mobiles du corridor.

[2] Documenter aussi la dynamique et les liens entre les communautés de pêche et les autres mobiles le long du corridor.

rémunérations, arrangements locaux pour la commercialisation de la production, système de financement de leurs activités.
- Inventorier les grossistes (précisions sur le type de mobilité; intensité,…).
- Inventorier d'autres groupes mobiles avec des interactions importantes avec le secteur de la pêche (dynamique entre communautés de pêche et d'autres groupes mobiles le long du corridor).
- Documenter l'interaction avec les services frontaliers : inventorier le nombre de postes de contrôle, et procédures administratives qui sont effectuées dans le cadre du travail par groupe professionnels mentionnés.
- Documenter les détails et observations sur le temps nécessaire pour passer les différent contrôle et obstacles au niveau des postes de contrôle.
- Documenter la perception des différents agents (contrôle et administration) sur les risques et CAP des acteurs du secteur de la pêche avec qui ils/elles ont des interactions.

Pour la perception des risques, les groupes suivants seront à interviewer (échantillonnage sur la base de strate):
Groupes cibles:
- Groupes mobiles (hommes et femmes): désagrégés par leur position dans la chaîne valeur ou dans la production.
- Migrants (hommes et femmes) : type et durée de la migration et conditions dans lesquelles ils travaillent.
- Personnes qui se soumettent aux transactions sexuelles et Professionnels de sexe.
- Jeunes (filles et garçons).
- Veuves et femmes séparées (ménages dirigés par une femme), enfants vulnérables et orphelins.

Informations à collecter pour permettre de comprendre:
- les principaux facteurs de risque (pour chaque groupe) lié à différentes stratégies de ME (ou de survie).
- les différentes stratégies individuelles de prévention.
- la perception des l'interviewées, sur les stratégies de prévention, soins et traitements qui existent au niveau communautaire.
- les implications pour les politiques et les programmes.
- la dynamique économique qui soutient les transactions sexuelles et les Professionnels de sexe (bordel ; bars).
- la construction de la « masculinité » (jeune homme) et les facteurs de risque liés aux jeunes hommes et aux infections IST et VIH/SIDA.

Suggérer:
- l'approche qui pourrait être appliquée au travail sensible au genre, liés aux risques des jeunes hommes.
- les pistes pour changer et les facteurs de protection qui font promouvoir l'équité genre, la non-violence envers les femmes et la volonté de se faire soigner.

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