IFMP Socio-economics Series 5

MONITORING OF THE SOCIO-ECONOMIC STATUS OF FISHER COMMUNITIES ON LAKE VICTORIA, UGANDA





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Implementation of a Fisheries Management Plan

National Fisheries Resources Research Institute

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LIST OF ACRONYMS

ARV	
BMUs	Beach Management Units
CAOs	Chief Administrative Officers
CAS	Catch Assessment Survey
DFOs	District Fisheries Officers
DFR	Department for Fisheries Resources
FGD	Focus Group Discussion
IFMP	Implementation of the Fisheries Management Plan
KIIs	Key Informant Interviews
LCs	Local Councils
LTTAs	Long-Term Technical Assistants
LVFO	Lake Victoria Fisheries Organization
NAFIRRI	National Fisheries Resources Research Institute
SPSS	Statistical Package for Social Scientists
SSIs	Semi-Structured Interviews
VCT	Voluntary Counseling and Testing

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TABLE OF CONTENTS

	Page.
LIST OF ACRONYMS	i
ACKNOWLEDGEMENTS	ii
EXECUTIVE SUMMARY	xi
1. INTRODUCTION	1
2. STUDY OBJECTIVE	1
2.1 Specific objectives	2
3. METHODOLOGY	2
3.1 Study Coverage and Sampling	2
3.2 Data collection	3
3.3 Data analysis	3
3.4 Limitations to the study	3
4. RESULTS AND DISCUSSIONS	4
4.1. BACKGROUND INFORMATION	4
4.1.1. Main fishery and Occupation of Stakeholders	4
4.1.2. Place of Birth	6
4.1.3. Reasons for Movement	6
4.1.4. Residence Status at beach	7
4.1.5. Age of Stakeholders	7
4.1.6. Marital status of stakeholders	8
4.1.7. Years in marriage	8
4.1.8. Place of marriage	9
4.1.9. Residence of spouse	10
4.1.10. Level of education of stakeholders	10
4.2. INCOME AND EXPENDITURE	11
4.2.1. Main sources of household income	11
4.2.2. Main sources of own income	12
4.2.3. Number of sources of income	13
4.2.4. Changes in stakeholder incomes (own and household)	13
4.2.5. Reasons for income variations	14
4.2.6. Main own expenditure items/sources	15

4.2.7. Main household expenditure items/sources 15
4.2.8. Alternative ways of expenditure 16
4.2.9. Decision making on income (women section) 17
4.3.BOAT OWNERS SECTION ONLY 17
4.3.1. Sex of boat owners 17
4.3.2.Number of boats owned 18
4.3.3. Main fish species targeted 18
4.3.4. Fishing with own boat 19
4.3.5. Number of crew employed 19
4.3.6. Using crew and time spent with crew 19
4.3.7. Frequency of change of crew 20
4.3.8. Number of trips per boat (week and month and reasons) 21
4.3.9. Boats staying at beaches 22
4.3.10.Number of beaches for boat operations 22
4.3.11.Payment of crew 22
4.3.12. Contribution of fishing to household income 23
4.3.13. Average income of boat owners 23
4.4. BOAT CREW SECTION ONLY 24
4.4.1. Years worked as crew member 24
4.4.2.Years worked on current boat as boat crew 24
4.4.3. Source of income before crew activities 25
4.4.4. Working on other boats 25
4.4.5. Number of boats worked on 26
4.4.6. Number of beaches worked on 26
4.4.7. Fish species mainly targeted 26
4.4.8. Frequency of fishing (days a week/months) 27
4.4.9. Busiest months in a year 27
4.4.10. Method of payment 27
4.4.11. Contribution of fishing to household income 28
4.4.12. Average earnings of crew 29
4.5. WOMEN SECTION ONLY 29
4.5.1. Ownership of main source of income 29
4.5.2. Time spent on fisheries-related activities 30

4.5.3. Contribution of fishing to household income 30
4.5.4. Average income from fisheries 31
4.6. BANK ACCOUNTS/SAVING 31
4.6.1. Ownership of bank accounts 31
4.6.2. Years of account ownership 32
4.6.3 Location of the Bank 32
4.6.4. Belonging to saving schemes 33
4.6.5. Types of saving schemes 33
4.6.6. Years spent in saving schemes 34
4.6.7. Receiving Credit (and institutions) 35
4.6.8. Type of credit institution 35
4.6.9. Reasons for Credit 36
4.6.10. Challenges to Credit 36
4.6.11. Alternative uses of Credit 37
4.7. MOBILE PHONES 38
4.7.1. Ownership of mobile phones 38
4.7.2. Years of mobile phone ownership 38
4.7.3. Reasons for ownership 39
4.7.4. Network Usage 39
4.7.5. Expenditure on mobile phones 40
4.8. BEACH MANAGEMENT UNITS 40
4.8.1. Membership to BMUs 40
4.8.2. The BMU Voting Process 41
4.8.3 Attending BMU meetings 41
4.8.4. BMU Decision-Making (women only) 43
4.9.0. HEALTH ISSUES 44
4.9.1. Information about HIV/Aids 44
4.9.2. How information was received 45
4.9.3. Knowledge on HIV/Aids 45
4.9.4. Delivery channels to receive information 46
4.9.5.Assistance Needed 47
4.9.6. Receiving Health Treatment 47
4.9.7. Distance to Health Facilities 48

4.9.8. Nearest Health Facility 49
5.0. CONCLUSIONS AND RECOMMENDATIONS 51
5.1 Conclusions 51
5.2 Recommendations 55
6.0 REFERENCES 56
Appendix 1: Beaches Sampled by District. 57
Appendix 2: Boat Owners' Questionnaire 58
Appendix 3: Boat Crew Questionnaire 70
Appendix 4: Women Questionnaire 82

LIST OF TABLES

	Page
Table 1: Place of birth	5
Table 2: Whether stakeholders lived at beach permanently	7
Table 3: Average number of years lived at beach	7
Table 4: Age of stakeholders	8
Table 5: Marital status of stakeholders	8
Table 6: Years in marriage	9
Table 7: Place respondents got married	9
Table 8: Where spouses lived	10
Table 9: Main sources of household income	11
Table 10: First main sources of own income	12
Table 11: Number of income sources	13
Table 12: Changes in stakeholder incomes	14
Table 13: Reason for changes in income	14
Table 14: Main items of own expenditure	15
Table 15: Main items of household expenditure	15
Table 16: Alternative ways of expenditure	16
Table 17: Decision making on income expenditure	17
Table 18: Sex of boat owners	18
Table 19: showing number of boats owned	18
Table 20: fish species mainly targeted	18
Table 21: Fishing with own boats	19
Table 22: showing number of crew employed	19
Table 23: Whether respondents used the same crew members	19
Table 24: number of years spent with crew	20
Table 25: showing how often boat crew are changed	20
Table 26: Reasons for change of boat crew	20
Table 27: Daily/Weekly number of trips made by boat	21
Table 28: Reasons for the number of trips made	21
Table 29: Whether boats stayed at landing sites where the owners worked	22
Table 30: How boat crews are paid	22

Table 31: Whether crew were paid every work day 23
Table 32: How income changed over the last year 23
Table 32: Average income from fish trip 24
Table 33: years worked as boat crew 24
Table 35: Years worked on current boat as boat crew 24
Table 36: Main source of income before becoming a boat crew 25
Table 37: Whether crew were working on other boats 25
Table 38: Number of boats worked on in the last one year 26
Table 39: number of beaches worked on in the last year 26
Table 40: Main species targeted by boat crew 26
Table 41: Average weekly days spent on income-generating activities 27
Table 42: Number of busiest months in a year 27
Table 43: Mode of payment of boat crew 28
Table 44: Frequency of payment 28
Table 45: Number of days for weekly payments in cash 28
Table 46: average fishing contribution to household income 29
Table 47: average income of crew (UShs) 29
Table 48: Average number of household income sources and duration 30
Table 49: Location of income source 30
Table 50: Average number of days spent on fishery related activities. 30
Table 51: Percentage contribution of fishing activities. 31
Table 52: Average income to women from fishing activities. 31
Table 53: whether respondents had bank accounts 31
Table 54: Years of account ownership 32
Table 55: Location of bank 32
Table 56: Belonging to saving schemes 33
Table 57: Type of saving scheme 33
Table 58: reasons for not belonging to savings schemes 34
Table 59: Years of account ownership 34
Table 60: Receiving credit 35
Table 61: Type of credit institution 35
Table 62: Reasons for credit 36
Table 63: Whether stakeholders had difficulties to credit repayment 37

Table 64: Problems faced in credit repayment 37
Table 65: Alternative uses of credit 37
Table 66: Whether fishers owned mobile phones 38
Table 67: Years of mobile phone ownership 39
Table 68: Reasons for mobile phone ownership 39
Table 69: Type of network used 40
Table 70: Weekly expenditure on airtime 40
Table 71: whether fishers were BMU members 41
Table 72: Participation in the BMU voting process 41
Table 73: Attending BMU meetings 42
Table 74: Number of BMU assembly meetings attended 42
Table 75: Reason for not attending meetings 42
Table 76: Whether stakeholders had great say in decision making 43
Table 77: Reasons for having great say in decision making 43
Table 78: Reasons against having great say in decision making 44
Table 79: Receiving information about HIV/AIDS 44
Table 80: How information was received 45
Table 81: Knowledge on HIV/AIDS 46
Table 82: Delivery channels needed to receive information 46
Table 83: Health assistance most needed by stakeholders 47
Table 84: Receiving health treatment 47
Table 85: Where treatment was got 48
Table 86: Distance to the nearest health facility 49
Table 87: Distance to nearest health facility 49
Table 88: Nearest health facility 50

LIST OF CHARTS

	Page
Chart 1: Main fishery of stakeholders	4
Chart 2: Main occupation of women	5
Chart 3: Reasons for movement of stakeholders	6
Chart 4: Levels of education of stakeholders	11

EXECUTIVE SUMMARY

Objective

1. The objective of the study was to provide information on the changes in the socio-economic status of fisher communities. The study aimed at contributing to the following selected OVIs of the IFMP log frame: "10% increase in incomes from fish catches by fishing crews by EOP", "20% women in BMUs reporting increased household income from fishing by EOP", " 50% women and fishing crew in BMUs reporting greater say in fisheries decision making"

2. The study would also contribute to the revision of the Fisheries Management Plan and to the development of the Fisheries Management Decision Support Tool, by identifying positive and negative socio-economic impacts of different policy scenarios.

Methodology

3. The study, which was conducted around the Ugandan part of Lake Victoria, covered a range of beach types, defined by the species principally targeted. These included; NP-O, NP-Mixed, Mixed beaches, Tilapia only, Tilapia mixed and Mukene only.

4. The survey employed three major data collection techniques, namely literature review, quantitative and qualitative survey and Focus Group Discussions with stakeholder groups.

5. Two survey teams worked simultaneously to collect the data and a total of 601 respondents were covered, from 32 beaches distributed in 11 districts, namely; Busia, Bugiri, Mayuge, Jinja, Mukono, Kampala, Wakiso, Mpigi, Masaka, Kalangala, and Rakai.

Main fishery and occupation of stakeholders

6. The main fishery targeted by boat owners and crew was Nile perch tilapia and mukene. Majority of the women (39%) were engaged in both fish processing and trading followed by fish traders (23.5%) and fish processors (16%) as their main occupation.

7. The majority of boat owners (37.1%) were born in other districts bordering the lake. However, majority of the boat crew (33.3%) and women (40.5%) were born in other districts not bordering the lake. The majority (94.5) of the respondents were Ugandans while a few (5.5) were Kenyans or Tanzanians.

Residence and marital status at the beach

8. Most of the stakeholders, 89.6% (boat owners), 87.1% (crew) and 83.8% (women) lived permanently at the beaches where they operated. Of those who moved, the majority, namely (95.9%) boat owners, (93.5%) crew and (81.6%) of the women had moved for work purposes while the others had moved for family reasons.

9. The majority (60.9%) of boat owners were monogamously married Most of the crew members (68.2%) were monogamously married. Majority (58.1%) boat owners and (46.4%) crew members had customarily married. Most of the respondents (75.1%) of the boat owners, (78.3%) of the crew and (82.8%) of the women lived with their spouses in their households.

Level of education of stakeholders

10. Some of the boat owners (7.9%) had no education, (41.1%) had not completed primary education while (24.3%) had not completed secondary education. Similarly, (51.2%) of the crew had incomplete primary education and only (17.2%) of the women had completed primary education.

Income and expenditure

11. The majority of the respondents ranked income from boats and gears, employment and trading and processing as their main sources of household income. These activities were also ranked as the main sources of own incomes. The mean number of income sources for boat owners was 2.2, 1.7 for boat crew and 2.3 for women. It was generally observed that women had more income sources compared to the boat owners and boat crew.

12. The own expenditure item ranked first by all stakeholders was food followed by school fees and medical costs respectively. The majority of the stakeholders preferred to re-invest some of the incomes earned into their businesses.

13. Majority (43.5%) of the women respondents revealed that they made decisions on own and household expenditure alone.

Boat owners' activities

14. The mean number of boats owned by boat owners was 1.95 boats. The majority (51.0%) of the boat owners targeted Nile Perch, followed by tilapia (33.7%) and mukene (14.9%). Most of them (57.9%) went fishing on their boats. The mean number of crew employed by boat owners was 4.52, the actual number depending on the number of boats owned.

15. An average of 4 fishing trips were made weekly. The major factors for the numbers of trips were that boat owners had other businesses to attend to; boat crew were not enough to employ or that it was not worth it financially.

16. Most boat owners (88.6%) reported that their boats stayed at their respective beaches where they worked. Of those that moved, the boats had moved to an average of 1.97 beaches. Majority of the boat owners (95.1%) paid their crew in cash followed by those who paid in shares of the catch (2.7%).

17. On average fisheries contributed about (80%) to the household incomes of boat owners. However, most of them (73.5%) reported a decrease in incomes over the last 5 years. The major factors for the decline were less fish in the lake as well as higher investment costs in fisheries. Boat owners earned Ushs. 32,476 on average per fishing trip

Boat crew data

18. The boat crew had worked for an average of 6.56 years. Several crew members had been involved in different activities before joining fishing, including farming, agricultural labour, trading in food and non-food items among others.

19. In the last one year, the crew worked on 1.9 beaches on average. Most of them targeted tilapia (41.8%), Nile Perch (38.8%) and mukene (18.9%). Their busiest months in a year were 4 on average, but some crew reported that they were busy throughout the year.

20. Majority of them were paid each day that they worked (95.0%). On average fishing contributed (88.49%) to their household incomes.

Women involvement

21. On average, women had 2.3 sources of income for a year. The women normally did not move frequently from beach to beach in search for income as most women (88.9%) earned their incomes from their places because migration was not a common tradition amongst women.

22. On average, women spent 4.2 days working in fisheries activities. On average, fishing contributed about (77.63%) of their household incomes. The average daily income of women from fisheries activities was UShs 11,992.32.

Bank accounts, saving and credit

23. Most boat owners (66.8%), crew (95%) and the women (81.6%) did not have bank accounts and this could be attributed to ignorance and lack of banking facilities among fishers. Majority of the women who had (42.4%) said the accounts were owned by their husbands or jointly between both their husbands and themselves. The average number of years of ownership of bank accounts by boat owners, crew and women were 4.4, 3.8 and 4.7 respectively.

24. Most of the respondents with bank accounts had them in the main district towns followed by other districts, Availability of banks was very limited within villages near to landing sites and this was one of the reasons for the low saving culture among fisheries stakeholders.

25. Most of the respondents did not belong to savings schemes. Reasons for not belonging to savings schemes included the lack of saving schemes near beaches, no money to save, ignorance of saving, among others.

26. The saving schemes run by local people themselves were the most prevalent among the fishing communities. Among those who belonged to the savings schemes, boat owners had spent an average of 2.7 years; crewmembers 2.3 years while women 2.7 years in the saving schemes.

27. Majority of boat owners (78.7%), crew members (92.3%) and women (82.6%) had not received credit from financial institutions. Of those who did, 52.4% of boat owners, 41.7% of crew, and 48.5% of the women accessed credit from micro-finance institutions. The other credit sources included savings and credit organizations (SACCOS), banks, friends and family.

28. The reasons for accessing credit varied as most of the women (33.3%) it was reportedly to start new businesses while majority of the boat owners (53.7%) and crew (45.5%) accessed credit to invest in fishing. Majority of the boat owners (69%) and crew (58.3%) did not have any difficulties in credit repayment.

Mobile phones

29. Majority of boat owners (55.4%) owned mobile phones, while most of the crew (68.2%) and women (76.4%) did not own them. Boat owners had them on average for 3.8 years followed by women (2.8 years) and crew (2.1 years). Boat owners owned phones to keep in touch with their homes (43.9%), followed by supporting their businesses (15.4%). Majority of the crew owned phones to keep in touch with their homes (58.5%), followed by supporting their businesses (15.4%) and because every one had a phone (13.8%). Most of the women owned phones to support their other fish businesses (47.7%), followed by keeping in touch with home (22.7%).

30. With regard to network usage, most of the boat owners (65.2%) and crew (66.2%) used the MTN network while majority of the women (64.4%) used the Celtel. Boat owners spent a weekly average of UShs 10,193 on airtime; crew members spent UShs 7,427 while the women spent UShs 6,815.

Beach Management Units

31. Majority of respondents were members of BMUs although only few could distinguish between a BMU assembly member and executive membership. Most of the boat owners (84.2%), crew (76.6%) and women (59.1%) reported being members of BMUs. Most boat owners (84.2%), crew (72.6%) and women (61%) reportedly voted during the elections for the BMU committee within their respective beaches.

32. Majority of the boat owners (80.2%), crew (72.1%) and women (54.5%) reported attending BMU meetings. It was revealed that 76.7% of the boat owners, 65.1% of

crew and 45.0% of the women reported having great say in decision-making processes, mainly through participation in the meetings.

Health issues

33. The majority of the stakeholder groups (97.4% of boat owners, 94.9% of crew and 92.7% of the women) had received some information about HIV/AIDS on radio. However, few of the women (34.9%) and boat crew (44.2%) but more boat owners (50.0%) had knowledge about HIV/AIDS.

34. Majority of the boat owners preferred to get knowledge through community trainers (36.7%) followed by 'barazas' (30.0%) and radio programs (20.0%). Most of the crew (40.9%) preferred 'barazas', followed by community trainers (26.8%) and radio programs (21.3%). The majority of the women (36.1%) preferred community trainers followed by 'barazas' (31.3%) and radio programs (16.7%).

35. Most boat owners (68%) reportedly needed more education/information about HIV/AIDS followed by provision of ARVs (20.1%) and Voluntary Counseling and Testing (VCT) (5.2%) while majority of crew members (67.5%) needed more information/education followed by provision of ARVs (19%) and VCT (6.5%). Most women (54.2%) also needed more information and education followed by provision of ARVs (28.6%).

36. Most stakeholders received treatment from private clinics at the beaches, private health centers near beaches and referral hospitals in the main district towns.

37. Most boat owners (78.9%) reported the nearest health facility to be in the beach villages, followed by in the district (20.6%) while most crew (76.1%) reported that the health facilities were located within the villages surrounding the beaches followed by with in the district (23.4%) and the majority of the women (71.4%) reported that health facilities were found within the beach villages followed by within the district (24.7%).

Conclusion

38. Progress had been realized in the areas of participation and decision making by the different stakeholder groups, particularly the crew and women. However, there had

been limited improvements in the earnings of the different stakeholder groups as well as access to social services.

Recommendations

39. Efforts towards increasing and improving social services at landing sites should be stepped-up to improve the quality of life, as more of the stakeholders take up permanent residency.
40. There is need for an improved investigation on the contribution of alternative sources of livelihood to fisher communities, as this research does not effectively capture detailed information on other livelihood sources.
41. BMU operations should be strengthened and BMU networks established to improve participation and decision making by the vulnerable groups.
42. Alternative income sources should be explored, through appropriate studies, to relieve the pressure on fish stocks.
43. There is also need to promote saving and credit by improving awareness and providing financial services to fishing communities.
44. HIV/AIDS information and services should be improved for the fishing communities.
45. There is need to continue socio-economic monitoring of the fisheries, to assess the impacts of local, national and regional programmes on the fishing communities.

MONITORING OF THE SOCIO-ECONOMIC STATUS OF THE FISHER COMMUNITIES ON LAKE VICTORIA, UGANDA

1. INTRODUCTION

Socio-economic research and monitoring is critical for effective and sustainable management of Lake Victoria fisheries and has attracted increasing interest over the past decade. In the last couple of years, socio-economic information and data on Lake Victoria has been generated mainly through studies and frame surveys. Such information is used to guide in the sustainable Monitoring, Control and Surveillance (MCS) activities embraced in the broad Fisheries Management Plan (FMP) of the Lake Victoria Fisheries. Socio-economic monitoring enables fisheries managers to know more about the fisheries stakeholders and the complexities of their livelihoods.

Implementation of the Fisheries Management Plan has had significant impacts on the fisheries communities. Whilst many of these may be negative, the long term impacts are expected to be positive in terms of improved incomes to fishers, increased export earnings and increased participation of women and crew in decision making.

Since the level of compliance and participation by fisher communities varies and is not fully understood, a socio-economic monitoring study would hence generate a detailed picture of the current fishery status in the effort to evaluate the work done so far.

Therefore, this study focused on monitoring some of the OVIs, which were identified in the IFMP log frame. These include; % increase in incomes from fish catches by fishing crew by EOP; % increase of women in BMUs reporting increased household income from fishing; % increase of women and crew in BMUs reporting greater say in fisheries management decision making by EOP.

2. STUDY OBJECTIVE

The major objective of the study was to provide information on the socio-economic status of fisher communities. The study aimed at contributing to OVI P4 ,OVI P5, OVI P6 and OVI P7 of the IFMP log frame; "10% increase in incomes from fish catches by fishing crews by EOP", "20% women in BMUs reporting increased household income from fishing by EOP", " 50% women and fishing crew in BMUs reporting greater say in fisheries

decision making", to the revision of the Fisheries Management Plan and to the development of the Fisheries Management Decision Support Tool, by identifying positive and negative socio-economic impacts of different policy scenarios.

2.1 Specific objectives

The specific objectives are as follows:

i) To evaluate the percentage increase in the number of women and crew reporting increased household incomes from fishing.

ii) To assess the percentage increase in the number of women and crew reporting greater say in fisheries management decision-making.

iii) To determine the percentage increase in incomes from fish catches by fishing crew.

iv) To develop recommendations for policy formulation from the study.

The study would also contribute to the purpose level indicators below, as greater compliance should increase productivity, economic value and management of the Lake Victoria fisheries. Status indicators to be monitored focus on the following areas:

i) Education status
ii) Asset ownership
iii) Housing status
iv) Access to food (fish)
v) Access to information
vi) Health status
vii) Financial status
viii) Well-being indicators
ix) Level of involvement in fisheries activities
x) Fisheries management status

3. METHODOLOGY

3.1 Study Coverage and Sampling

The study, which was conducted around the Ugandan part of Lake Victoria, covered a range of beach types, defined by the species principally targeted. Beach types were defined by the

species principally targeted according to CAS reports and these included; NP-O, NP-Mixed, Mixed beaches, Tilapia only, Tilapia mixed, Mukene only. Appendix 1 summarizes the beaches sampled and beach types. The random sampling technique was used to obtain stakeholder groups for interviews including; boat owners, crew, women while purposive sampling was used to select key informants to seek for their expert opinions and views about co-management in the fisheries in Uganda.

3.2 Data collection

The survey employed three major data collection techniques:

i) Literature review on past studies to generate more information on the OVIs studied.

ii) Quantitative and qualitative survey (semi-structured) carried out at beach level with boat owners, boat crew and women as well as BMU executives.

iii) Focus Group Discussions with stakeholder groups, by gender, to evaluate the productivity, economic value and management of the fisheries.

Two survey teams worked simultaneously to collect the data and a total of 601 respondents were covered, from 32 beaches distributed in 11 districts, namely; Busia, Bugiri, Mayuge, Jinja, Mukono, Kampala, Wakiso, Mpigi, Masaka, Kalangala, and Rakai.

3.3 Data analysis

Quantitative data was entered and analyzed using the SPSS statistical package. Output summaries were presented as frequencies and charts and for the numerical data; means, minimums and maximums were computed. Qualitative data was entered in a tabular form and analyzed using the content analysis method.

3.4 Limitations to the study

The study design excluded the male traders and processors who are among the main agents in fishing activities.

4. **SURVEY RESULTS AND DISCUSSIONS**

4.1 BACKGROUND INFORMATION

This section provides background information on stakeholders including; involvement in fisheries activities, place of birth, biological and social characteristics, level of education and residency status.

iv.1.1 Main Fishery and Occupation of Stakeholders

The main fishery targeted by boat owners and crew was examined. The fishery was categorized in five types and these included; Nile perch (out board engines), Nile perch (Manual), Tilapia, mukene and others as summarized in the Chart 1.

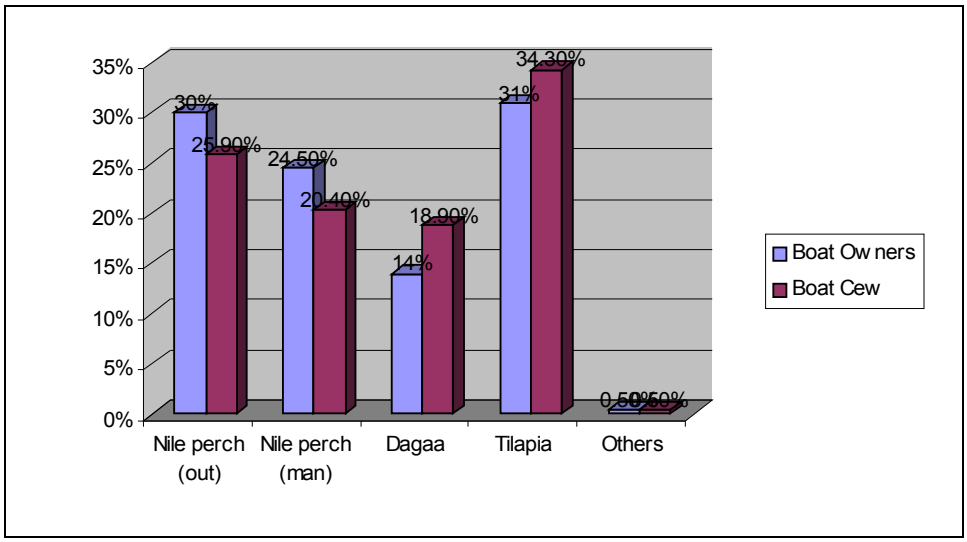

Chart 1: Main fishery of stakeholders

Source: Survey Data, 2007

From the chart, the majority of boat owners (31%) targeted Tilapia followed by Nile perch using outboard engines (30%) and Nile perch by paddled boats (24.5%) while (14%) of them targeted mukene. The majority (34.3%) of the crew members targeted Tilapia followed by Nile perch-outboard engines (25.9%) and Nile perch manual (20.4%) while (18.9%) of them targeted mukene.

The main occupation of women stakeholder was also investigated. The data revealed that the majority of the women (39%) were engaged in both fish processing (Chart 2).

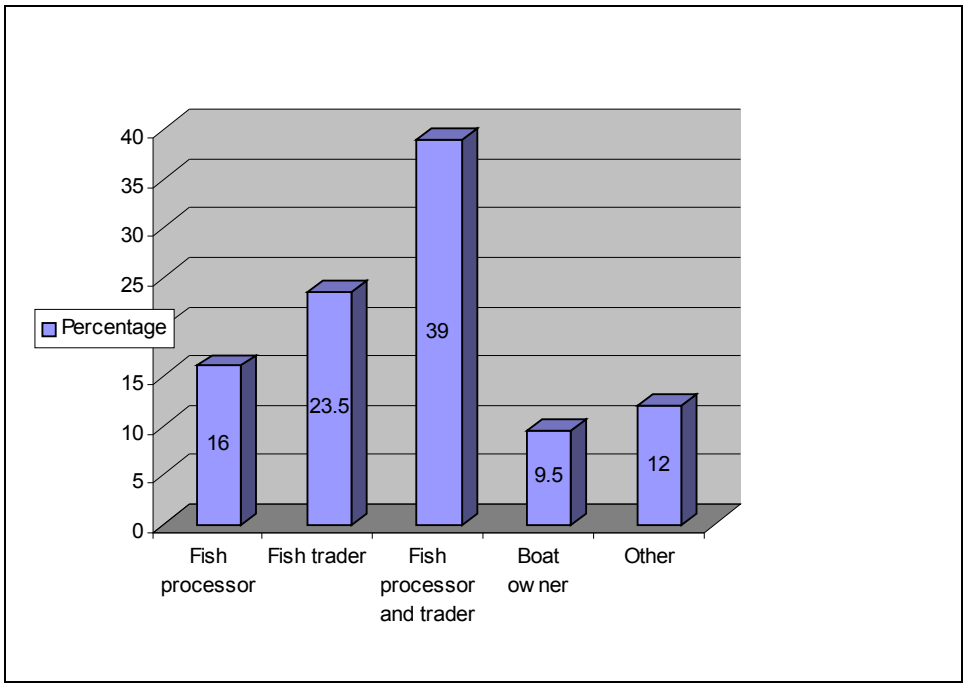

Chart 2: Main occupation of women

Source: Survey Data, 2007

The place of birth of stakeholders was investigated. The survey revealed that the majority of boat owners (37.1%) were born in other districts bordering the lake (Table 1). Majority of the boat crew (33.3%) and women (40.5%) were born in other districts not bordering the lake. The data also revealed that the least number of the stakeholders were born in other countries.

Table 1: Place of birth

	Boat owners		Crew members		Women	
	Freq	%	Freq	%	Freq	%
Within this village	39	19.3	40	19.9	14	7.0
Another village nearby	7	3.5	9	4.5	11	5.5
This loc/SC/ward	4	2.0	2	1.0	4	2.0
This district	25	12.3	19	9.5	17	8.5

Other district lake	75	37.1	60	29.8	68	34.0
Other district not lake	50	24.8	67	33.3	81	40.5
Other country	2	1.0	4	2.0	5	2.5
Total	**202**	**100.0**	**201**	**100.0**	**200**	**100.0**

Source: Survey Data, 2007

iv.1.2 Place of Birth

The majority of boat owners (99%) were Ugandans while just a few (1%) of them were Kenyans. Among the crew members, Ugandans comprised of 97.5%, where as Kenyans were 2.5% of them. Majority of the women sampled (97.5%) were born in Uganda and only (2.5%) were born in other countries that bordered the lake like Kenya and Tanzania.

iv.1.3 Reasons for Movement

The reasons for movement of stakeholders to the beach villages where they were operating were studied. The results from the survey showed that majority of boat owners (95.9%), crew members (93.5%) and Women (81.6%) had moved for work purposes while others had moved for family reasons (Chart 3).

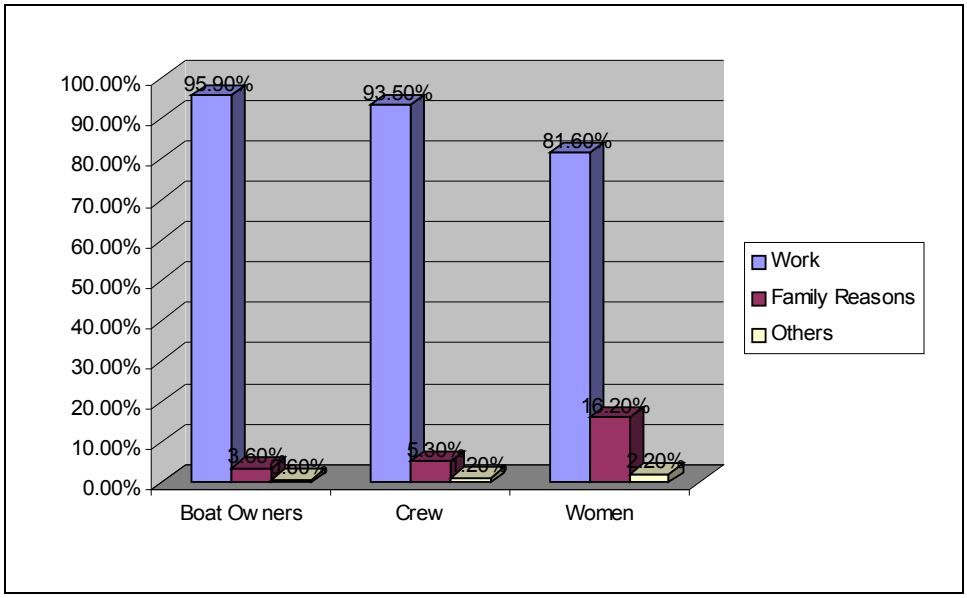

Chart 3: Reasons for movement of stakeholders

Source: Survey Data, 2007

iv.1.4 Residence Status at Beach

The survey sought to provide information on the residency status of stakeholders. The data indicates that majority of the stakeholders (89.6%) boat owners, (87.1%) crew and (83.8%) women permanently lived at the beaches where they operated while a few of them temporarily lived at those beaches (Table 2). It was reported that most those who did not stay at the landing sites where they were operating stayed at other landing sites.

Table 2: Whether stakeholders lived at beach permanently

Response	Boat Owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	181	89.6	175	87.1	150	83.8
No	21	10.4	26	12.9	29	16.2
Total	**202**	**100.0**	**201**	**100.0**	**179**	**100.0**

Source: Survey Data, 2007

The mean number of years lived at the beaches by stakeholders was 13.97 (boat owners), 9.01 (crew members) and 7.79 (women) (Table 3).

Table 3: Average number of years lived at beach

Group	N	Minimum	Maximum	Mean
Boat owners	179	1	50	13.97
Crew	171	1	53	9.01
Women	160	1	49	7.79

Source: Survey Data, 2007

iv.1.5 Age of Stakeholders

The age of respondents varied among stakeholder groups. The mean age of stakeholders was 36.2 years (boat owners), 29.60 years (crew) and 34.49 years (women) (Table4).

Table 4: Age of stakeholders

Group	N	Minimum	Maximum	Mean
Boat owners	202	21	63	36.20
Crew	201	17	65	29.60
Women	200	16	60	34.49

Source: Survey Data, 2007

iv.1.6 Marital status of stakeholders

The survey sought information on the marital status of stakeholders. The data showed that the majority (60.9%) of boat owners were monogamously married (Table 5). Most of the crew members (68.2%) were monogamously married while 9.0%. The findings also showed that the majority (74.2%) of the women stakeholders were monogamously married.

Table 5: Marital status of stakeholders

Marital status	Boat owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
Never married	10	5.0	36	17.9	1	3.2
Monogamous married	123	60.8	137	68.2	23	74.2
Polygamous married	60	29.7	18	8.9	1	3.2
Living together	1	.5	--	--	2	6.5
Separated/divorced	3	1.5	7	3.5	4	12.9
Widowed	5	2.5	3	1.5	1	3.2
Total	**202**	**100.0**	**201**	**100.0**	**31**	**100.0**

Source: Survey Data, 2007

iv.1.7 Years in marriage

Stakeholder responses were sought about the number of years spent in marriage and the results indicated that on average married boat owners had spent 13.35 years in marriage as

compared to the married crew average of 7.52 years. The women stakeholders had on average spent 11.16 years in marriage as shown in the Table 6 below.

Table 6: Years in marriage

Group	N	Minimum	Maximum	Mean
Boat owners	182	1	46	13.35
Crew	151	1	36	7.52
Women	132	1	43	11.16

Source: Survey Data, 2007

The survey results also indicated that majority of the married stakeholders (64.4%) boat owners, (68.4%) crew and (54.3%) women had not been married before their current marriages, while (35.6%) boat owners, (31.6%) crew and (45.7%) women had been married before.

iv.1.8 Place of marriage

Discussions and interviews showed that majority of the married stakeholders 58.1% (boat owners), and 46.4% (crew) had customarily married. However, a significant number (34.2%) of the crew had done nothing to regularize their marriages as well as the majority of the women (40.8%) (Table 7).

Table 7: Place respondents got married

	Boat owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
Get married in church/mosque	38	23.8	21	15.0	25	20.0
Civil marriage	--	--	2	1.4	--	0.8
Customary marriage	93	58.1	65	46.4	1	38.4
Do nothing	29	18.1	48	34.2	48	40.8
Other (specify)	--	--	4	3.0		--
Total	**160**	**100.0**	**140**	**100.0**	**74**	**100.0**

Source: Survey Data, 2007

iv.1.9 Residence of spouse

Stakeholders were asked whether their spouses lived with them in the households. The data indicated that most of the stakeholders (75.1%) of the boat owners, (78.3%) of the crew and (82.8%) of the women lived with their spouses in their households while a few did not. Table 8 below summarizes information on where spouses who did not live with their husbands/wives lived. It shows that majority of the boat owners (61.2%) and crew (80.8%) who did not live with their spouses lived in their home villages while the women (56.0%) lived in other places.

Table 8: Where spouses lived

	Boat owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
In the nearby village	10	20.4			--	--
In the nearby village	1	2.0	4	15.4	8	32.0
In home village	30	61.3	21	80.8	3	12.0
Other places	8	16.3	1	3.8	14	56.0
Total	**49**	**100.0**	**26**	**100.0**	**25**	**100.0**

Source: Survey Data, 2007

iv.1.10 Level of education of stakeholders

The levels of education among stakeholders were examined. The analysis showed that (7.9%) of the boat owners had no education, (41.1%) had not completed primary education while (24.3%) had not completed secondary education. The results further showed that the majority of the crew (51.2%) had incomplete primary education followed by those who had incomplete secondary education (20.4%). The data also revealed that only (17.2%) of the women had completed primary education (Chart 4). From Chart 4, it can be seen that the levels of education among fishing communities are still very low. The socio-economics baseline survey of 2006 showed that the proportion of respondents who had no education was (13.3%) and those who did not complete primary education was (43.0%).

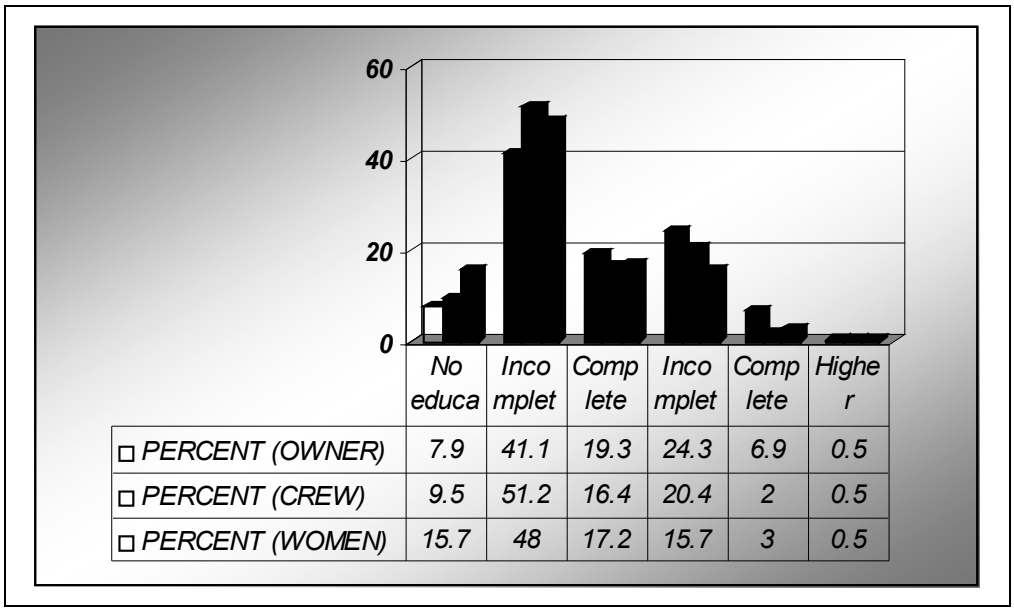

Chart 4: Levels of education of stakeholders

Source: Survey Data, 2007

iv.2 INCOME AND EXPENDITURE

The survey sought information on income and expenditure of fisheries stakeholders. The discussions and interviews of the stakeholders set out to identify the main sources of own and household income and expenditure.

iv.2.1 Main sources of household income

The respondents were asked to rank the main sources of their household income. The majority of the respondents ranked income from boats and gears, employment and trading and processing as their main sources of household income, as shown in the table below (Table 9).

Table 9: First main sources of household income

Income sources	**Boat owners**		**Crew**		**Women**	
	N	%	N	%	N	%
Fishing income from boats and gear owned	179	89.5	10	5.0	33	16.8
Fishing employment (wages and salaries)	8	4.0	171	85.5	17	8.7

Fish trading & processing	1	0.5	6	3.0	108	55.6
Net making or repairing	1	0.5	1	.5	1	--
Non-fishing employment: private	---	---			7	3.6
Non-fishing employment: Government	---	---	1	.5	2	1.0
Boat building and repairing	---	---	1	.5	--	--
Trading in other food items	---	---	3	1.5	14	7.1
Trading non food items	2	1.0	6	3.0	2	1.0
Farming (crops and horticulture)	7	3.5	1	.5	6	3.1
Livestock farming	---	---	---	---	--	--
Remittances or transfer payments	---	---	---	---	--	--
Rental income	---	---	---	---	1	0.5
Others	2	1.0			5	2.6
Total	**200**	**100.0**	**200**	**100.0**	**196**	**100.0**

Source: Survey Data, 2007

iv.2.2 Main sources of own income

The main sources of own income for stakeholders were investigated. Table 10 below shows that stakeholders ranked income from boats and gears, employment and trading and processing as their main sources of own income.

Table 10: First main sources of own income

	Boat owners		**Crew**		**Women**	
Income sources	N	%	N	%	N	%
Fishing income from boats and gear owned	190	94.0	7	3.8	24	12.8
Fishing employment (wages and salaries)	5	2.5	166	89.2	13	6.9
Fish trading & processing	1	0.5	5	2.7	117	62.2
Net making or repairing	--	--	--	--	1	--
Non-fishing employment: private	--	--	2	1.0	1	.5
Non-fishing employment: Government	--	--	--	--	--	.5
Boat building and repairing	--	--	--	--	--	--

Trading in other food items	--	--	--	--	14	7.4
Trading non food items	1	0.5	2	1.1	3	1.6
Farming (crops and horticulture)	3	1.5	4	2.2	8	4.3
Livestock farming	--	--	--	--	--	--
Remittances or transfer payments	--	--	--	--	--	--
Rental income	--	--	--	--	2	1.1
Others	2	1.0	--	--	5	2.7
Total	**202**	**100.0**	**186**	**100.0**	**188**	**100.0**

Source: Survey Data, 2007

iv.2.3 Number of income sources

The number of income sources for stakeholders was examined. The data depicted that the mean number of income sources for boat owners, boat crew and women were 2.22, 1.69 and 2.29 respectively (Table 11). It was observed that women had more income sources compared to the boat owners and boat crew.

Table 11: Number of income sources

Group	N	Minimum	Maximum	Mean
Boat owners	201	1	6	2.22
Crew	194	1	4	1.69
Women	197	1	10	2.29

Source: Survey Data, 2007

iv.2.4 Changes in stakeholder incomes (own and household)

Discussions and interviews revealed variations in stakeholder incomes over the years. The incomes to stakeholders had generally decreased over the last year, as shown in the Table 12 below.

Table 12: Changes in stakeholder incomes

Response	Boat Owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
Increased	40	20.0	42	21.1	20	10.9
Decreased	147	73.5	128	64.3	131	71.6
Stayed the same	13	6.5	28	14.1	31	17.0
Do not know	--	--	1	.5	1	0.5
Total	**200**	**100.0**	**199**	**100.0**	**183**	**100.0**

Source: Survey findings, 2007

iv.2.5 Reasons for income variations

The data shows that the major reasons for the income decrease were less fish, fish is expensive and less work, among others (Table 13).

Table 13: Reason for changes in income

	Boat Owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
More fish	7	3.6	10	5.4	3	2.0
Less fish	124	64.2	74	40.0	101	66.4
More valuable fish	9	4.7	8	4.3	--	--
Fish prices gone up (expensive)	11	5.7	12	6.5	14	9.2
Fish prices gone down	6	3.1	4	2.2	--	--
Invested in the business	3	1.6	--	--	--	--
More work	--	--	10	5.4	--	--
Less work	--	--	38	20.5	--	--
High competition for buying fish	--	--	--	--	17	11.2
Other	33	17.1	29	15.7	17	11.2
Total	**193**	**100.0**	**185**	**100.0**	**152**	**100.0**

Source: Survey Data, 2007

iv.2.6 Main own expenditure items/sources

Respondents were asked to rank how they used their income from the fishery. The data revealed that the first item ranked by all stakeholders was food followed by school fees and medical costs respectively (Table 14).

Table 14: Main items of own expenditure

	First Item (%)			Second Item (%)			Third Item (%)		
	BO	CR	WO	BO	CR	WO	BO	CR	WO
Food	71.3	79.0	64.9	5.6	6.5	14.2	4.1	2.9	2.0
School fees	19.8	8.0	22.8	45.2	25.8	45.4	2.3	4.4	5.4
House rent	---	.5	--	6.2	14.5	---	5.2	9.6	4.1
Business	2.1	1.0	2.1	5.6	3.2	8.2	2.3	30.9	1.4
Medical costs	1.0	2.5	2.6	23.4	25.8	6.0	28.5	----	41.9
Leisure	1.5	---	1.0	1.0	3.8	19.1	2.9	14.0	1.4
Investment	3.5	4.5	4.6	7.6	7.0	1.1	23.8	8.8	5.3
Savings	0.5	3.0	.5	5.1	5.9	4.9	12.8	10.3	20.9
Other	0.5	1.5	1.5	0.5	7.5	1.1	18.1	19.1	17.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Survey Data, 2007

BO-Boat owners; CR-Crew; WO-Women

iv.2.7 Main household expenditure items/sources

The data revealed that the main items of own expenditure ranked by all stakeholders were food, followed by school fees and medical costs respectively (Table 15).

Table 15: Main items of household expenditure

	First Item (%)			Second Item (%)			Third Item (%)		
	BO	CR	WO	BO	CR	WO	BO	CR	WO
Food	80.2	76.5	64.8	6.3	8.3	15.0	4.0	6.7	5.8
School fees	13.2	8.7	21.8	56.8	24.9	46.1	1.7	3.3	4.5

House rent	0.5	1.1	1.6	7.9	11.2	17.8	9.1	11.7	7.7
Business	0.5	.5	---	5.3	5.9	0	1.1	.8	.6
Medical costs	0.5	1.6	6.2	16.8	36.1	2.8	42.6	32.5	41.0
Leisure	---	1.6	.5	1.1	.6	17.2	1.7	9.2	1.3
Investment	3.0	2.7	3.6	4.2	1.8	1.1	18.8	15.0	7.1
Savings	1.0	3.8	0	1.1	4.7	---	9.7	8.3	19.2
Other	1.0	3.3	1.6	0.5	6.5	---	11.4	12.5	12.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Survey Data, 2007

BO-Boat owners; CR-Crew; WO-Women

iv.2.8 Alternative ways of expenditure

The study also set out to assess other ways in which more money would be spent. The survey results indicated that majority of the stakeholders preferred to re-invest more incomes earned into their businesses (Table 16).

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Table 16: Alternative ways of expenditure

Response	Boat Owners		Crew		Women	
	Freq	%	Freq	%	Freq	%
More food	26	13.0	17	9.2	6	3.3
Other h/hold consumption	20	10.0	30	16.2	17	8.9
School fees	33	16.6	12	6.5	36	18.9
Savings	29	14.6	51	27.6	53	27.9
Invest in your business	65	32.7	57	30.8	54	28.4
Other (specify)	26	13.1	18	9.7	24	12.6
Total	**199**	**100.0**	**185**	**100.0**	**190**	**100.0**

Source: Survey Data, 2007

iv.2.9 Decision making on income expenditure

The women stakeholders were interviewed about who made decisions on household and own income expenditure within the household. Majority (43.5%) of the women respondents revealed that they made decisions on household income and 56.3% made decisions on own income expenditure alone (Table 17).

Table 17: Decision making on income expenditure

Response	Household income		Own income	
	Freq	%	Freq	%
Husband	26	22.6	17	15.3
Other h/hold male member	--	--	--	--
Me and husband	38	33.0	31	27.9
Me only	50	43.5	63	56.8
All adult members	--	--	--	--
Other (specify)	1	0.9	--	--
Total	**115**	**100.0**	**111**	**100.0**

Source: Survey Data, 2007

iv.3 BOAT OWNERS SECTION ONLY

This section sought to provide information on boat owners on aspects of fishing assets owned, employment of boat crew and incomes to boat owners.

iv.3.1 Sex of boat owners

The data revealed that the proportion of male boat owners was quite high (95.5%) as compared to their female counterparts (Table 18), showing that men have continued to dominate ownership of boats in the fisheries

Table 18: Sex of boat owners

Sex	Frequency	Percent
Male	193	95.5
Female	9	4.5
Total	**202**	**100.0**

Source: Survey Data, 2007

iv.3.2 Number of boats owned

The number of boats owned per boat owner was surveyed and the data revealed that the mean number of boats owned was 1.95 boats(Table 19).

Table 19: showing number of boats owned

N	Minimum	Maximum	Mean
202	1	12	1.95

Source: Survey Data, 2007

iv.3.3 Main fish species targeted

The survey sought information on the main fish species targeted by the boat owners. The data showed that the majority (51.0%) targeted Nile Perch, followed by Tilapia (33.7%) and mukene (14.9%) (Table 20).

Table 20: fish species mainly targeted

Species	Frequency	Percent
Nile perch	103	51.0
Tilapia	68	33.7
Mukene	30	14.9
Other	1	.5
Total	**202**	**100.0**

Source: Survey Data, 2007

iv.3.4 Fishing with own boats

The survey investigated whether boat owners went fishing on their boats themselves. The survey results established that majority (57.9%) of them went fishing on their boats (Table 21)

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Table 21: Fishing with own boats

	Frequency	Percent
Yes	117	57.9
No	85	42.1
Total	**202**	**100.0**

Source: Survey Data, 2007

iv.3.5 Number of crew employed

The numbers of crew members employed by boat owners were examined and the results showed that the mean number of crew employed was 4.52 (Table 22).

Table 22: showing number of crew employed

N	Minimum	Maximum	Mean
187	1	36	4.52

Source: Survey Data, 2007

iv.3.6 Using crew and time spent with crew

The majority of the boat owners (72.9%) said that they often used the same crew members (Table 23).

Table 23: Whether respondents used the same crew members

Response	Frequency	Percent
Yes	137	72.9
No	51	27.1
Total	**188**	**100.0**

Source: Survey Data, 2007

Most of the boat owners had spent an average of 2.79 years with their crew members, although the range was high (Table 24).

Table 24: number of years spent with crew

N	Minimum	Maximum	Mean
167	.10	20.00	2.7928

Source: Survey Data, 2007

iv.3.7 Frequency of change of crew

Data on the frequency of change of crew by boat owners showed that majority of the boat owners changed their crew staff every few months (50%) while few of them changed the crew annually (Table 25).

Table 25: showing how often boat crew are changed

	Frequency	Percent
Each month	15	16.3
Every few months	46	50.0
Every year	9	9.8
Other	22	23.9
Total	**92**	**100.0**

Source: Survey Data, 2007

The main reasons for change of crew were leaving of the landing site (26.1%), followed by dishonesty (10.2%) and disagreements (10.2%) (Table 26).

Table 26: Reasons for change of boat crew

Reason	Frequency	Percent
They leave the landing site	23	26.1
They fish legally	2	2.3

They are dishonest	9	10.2
Disagreements	9	10.2
Other	45	51.2
Total	**88**	**100.0**

Source: Survey Data, 2007

iv.3.8 Number of trips per boat

The survey investigated the average daily and weekly number of trips made by boats. The data revealed that a mean of 1.11 were made per day and an average of 5.33 trips were made weekly (Table 27).

Table 27: Daily/Weekly number of trips made by boat

Group	N	Minimum	Maximum	Mean
Per day	201	1	5	1.11
Per week	195	1	8	5.33

Source: Survey Data, 2007

Reasons for the number of trips made weekly

The major reasons highlighted by most of the boat owners for those numbers of trips were that boat owners had other businesses to attend to, boat crew were not enough to employ and that sometimes it was not worth making the trip, financially (Table 28).

Table 28: Reasons for the number of trips made

Reason	Frequency	Percent
Not worth it financially	6	4.2
Not enough boat crew to employ	9	6.3
Fish truck only comes a few times a week	1	0.7
Have other businesses to attend to	16	11.3
Other	110	77.5
Total	**142**	**100.0**

Source: Survey Data, 2007

iv.3.9 Boats staying at beaches

The boat owners were interviewed on whether their boats stayed at their respective beaches. Table 29 below illustrates that most boat owners (88.6%) said that their boats stayed at their respective beaches where they worked (Table 29).

Table 29: Whether boats stayed at landing sites where the owners worked

Response	Frequency	Percent
Yes	179	88.6
No	23	11.4
Total	**202**	**100.0**

Source: Survey Data, 2007

iv.3.10 Number of beaches for boat operations

The number of beaches where boats for boat owners had moved were examined. The data revealed that the boats had moved to an average of 1.97 beaches and a maximum of ten (10) beaches.

iv.3.11 Payment of crew

According to the survey, majority of the boat owners (95.1%) paid their crew in cash followed by those paid in shares of the catch (2.7%) while a few of them (2.2%) said that crew were paid in cash and fish (Table 30).

Table 30: How boat crews are paid

	Frequency	Percent
In cash only	174	95.1
Give share of fish catch	5	2.7
In cash and fish	4	2.2
Total	**183**	**100.0**

Source: Survey Data, 2007

The discussions with boat owners also revealed that most of the crew were paid every work day (94.5%) while very few were not as shown in the Table 31.

Table 31: Whether crew were paid every work day

Response	Frequency	Percent
Yes	173	94.5
No	10	5.5
Total	**183**	**100.0**

Source: Survey Data, 2007

iv.3.12 Contribution of fishing to household income

The contribution of fishing to household incomes was a parameters investigated. The data showed that on average fish contributed (80%) to the household incomes of most boat owners.

The variations in income changes were also examined and the data revealed that incomes to most of the boat owners had decreased (73.5%) as depicted in the Table 32. The changes in incomes to boat owners were attributed to several reasons, including; less fish in the lake, increased fish prices as well as less investment in the businesses.

Table 32: How income changed over the last year

	Frequency	Percent
Increased	40	20.0
Decreased	147	73.5
Stayed the same	13	6.5
Total	**200**	**100.0**

Source: Survey Data, 2007

iv.3.13 Average income of boat owners

The average income from one fish trip was examined. The data showed that boat owners earned UShs. 32,476 on average per fishing trip for one boat (Table 33)).

Table 32: Average income from fish trip

N	Minimum	Maximum	Mean
193	1000	75,000	32,476

Source: Survey Data, 2007

iv.4 BOAT CREW SECTION ONLY

The section below details information on the crew as a major category of stakeholders involved in the fisheries. Respondents were asked such issues like number of years worked as crew, main target fish species, frequency of change of boats, mode of payment, main income source and contribution of fishing to household income.

iv.4.1 Years worked as boat crew

Table 34 describes the period for which the boat crew had worked. The data revealed that boat crew had worked for an average of 6.56 years.

Table 33: years worked as boat crew

N	Minimum	Maximum	Mean
201	1	40	6.56

Source: Survey Data, 2007

iv.4.2 Years worked on current boat as boat crew

The data showed that boat crew had a mean of 2.82 years working on their current boats (Table 33).

Table 35: Years worked on current boat as boat crew

N	Minimum	Maximum	Mean
149	1	30	2.82

Source: Survey Data, 2007

iv.4.3 Sources of income before crew activities

Several crew members were involved in a number of activities before joining fishing activities. Some of these activities included: farming, agricultural labour, trading in food and non-food items among others (Table 36).

Table 36: Main source of income before becoming a boat crew

Main source of income	Frequency	Percent
Agricultural labour	21	12.4
Farmer (own land)	51	30.0
Livestock farming	7	4.1
Non-fishing employment private	11	6.5
Non-fishing employment Government	1	.6
Trading food	10	5.9
Trading non-food	11	6.5
Other	58	34.1
Total	**170**	**100.0**

Source: Survey Data, 2007

iv.4.4 Working on other boats

The crew respondents were asked if they were working on other boats, and majority said that they were not (65.2%) (Table 37).

Table 37: Whether crew were working on other boats

Work on other boats	Frequency	Percent
Yes	70	34.8
No	131	65.2
Total	**201**	**100.0**

Source: Survey Data, 2007

iv.4.5 Number of boats worked on

The discussions and interviews with crew stakeholders confirmed that the crew had worked on other boats before. The data showed that the crew had worked on a mean of 3.5 boats in the last one year (Table 38).

Table 38: Number of boats worked on in the last one year

N	Minimum	Maximum	Mean
70	1	20	3.50

Source: Survey Data, 2007

iv.4.6 Number of beaches worked on

The migration of crew to beaches varied but the study revealed that the crew worked on an average of 1.9 beaches in the last one year (Table 39).

Table 39: number of beaches worked on in the last year

N	Minimum	Maximum	Mean
167	1	20	1.9

Source: Survey Data, 2007

iv.4.7 Fish species mainly targeted

The survey investigated the main fish species targeted by the boat crew. Most of the crew reportedly targeted tilapia (41.8%) and Nile Perch (38.8%). (Table 40).

Table 40: Main species targeted by boat crew

Species	Frequency	Percent
Nile Perch	78	38.8
Tilapia	84	41.8
Mukene	38	18.9
Other	1	0.5
Total	**201**	**100.0**

Source: Survey Data, 2007

iv.4.8 Days spent on income-generating activities

The weekly number of days spent on income generating activities was investigated. The mean number of days worked in a week was 4.6 (Table 41). The reasons for working these numbers of days varied between the groups. The boat crew worked the number of days they did because they considered them enough to achieve what they wanted (12.4%), or they simply didn't want to work more days (12.4%) or because the boats they worked on were supposed to operate for only those number of days (7.9%) and there was not more work available with other boat owners (0.6). Other reasons included the need to rest and/or engage in other income earning activities.

Table 41: Average weekly days spent on income-generating activities

N	Minimum	Maximum	Mean
191	1	10	4.6

Source: Survey Data, 2007

iv.4.9 Busiest months in a year

Investigations revealed that boat crew had few busy months in a year and this was attributed to the decrease in the catch of fish and the mean of 4.05 months were reported as busiest months in a year (Table 42). However, some crew reported that they were busy throughout the year.

Table 42: Number of busiest months in a year

N	Minimum	Maximum	Mean
189	1	12	4.05

Source: Survey Data, 2007

iv.4.10 Methods of payment

Several modes of payments in which the boat owners paid the crew members were identified during the survey. The majority were paid in cash (92.5%) whereas others were paid under the share system, where the total fish catch was shared amongst themselves after sale (5.0%) (Table 43).

Table 43: Mode of payment of boat crew

Mode of payment	Frequency	Percent
In cash only	186	92.5
Sell share catch	10	5.0
Share catch owner sold	4	2.0
Cash and fish	1	.5
Total	**201**	**100.0**

Source: Survey Data, 2007

With respect to the frequency of payment of crew, majority of them were paid each day that they worked (95.0%) with only a small proportion of crew respondents not paid on the exact day when they worked (Table 44).

Table 44: Frequency of payment

	Frequency	Percent
Yes	191	95.0
No	10	5.0
Total	**201**	**100.0**

Source: Survey Data, 2007

The average number of days in a week for which crew were paid was 4.90 (Table 45).

Table 45: Number of days for weekly payments in cash

N	Minimum	Maximum	Mean
179	1	7	4.90

Source: Survey Data, 2007

iv.4.11 Contribution of fishing to household income

The survey collected views of the crew members about contribution of fishing to their household income. The data shows that on average fishing contributed (88.49%) to the household incomes of most crewmembers (Table 46).

Table 46: average fishing contribution to household income

N	Minimum	Maximum	Mean
200	20	100	88.49

Source: Survey Data, 2007

iv.4.12 Average earnings of crew

The incomes to boat crew were examined and the information revealed that some boat crew earned incomes on a daily basis while others were paid weekly. The mean earnings for crew members paid on daily and weekly basis are given in Table 47 below.

Table 47: average income of crew (UShs)

	N	Minimum	Maximum	Mean
Daily income	170	900	55,000	7,910.59
Weekly income	16	5,000	250,000	77,625.00

Source: Survey Data, 2007

iv.5 WOMEN SECTION ONLY

The survey examined the women as one of a major stakeholder group in fisheries. The income sources, average incomes and percentage contribution of fishing activities of the women were among the parameters examined.

iv.5.1 Household income sources owned and duration

During the survey, it was observed that the women had various sources of income. On average, women had 2.3 sources (Table 48). The data also revealed that women had had their main sources of income for a mean period of 8.2 years (Table 48.

Table 48: Average number of household income sources and duration

Variable	N	Minimum	Maximum	Mean
Sources of household income	197	1	10	2.3
Number of years with main household income source	191	1	40	8.2

Source: Survey Data, 2007

The location of the income sources for the women was investigated. The survey revealed that the women normally did not move from beach to beach in search for income and that most women (88.9%) earned their income from their places of operation (Table 49). For a woman to move between beaches in search for income was not considered a common tradition amongst women.

Table 49: Location of income source

Source of income	Frequency	Percentage
Income from this beach	169	88.9
Move between beaches	21	11.1
Total	**190**	**100.0**

Source: Survey Data, 2007

iv.5.2 Days spent on fisheries-related activities

On average, women spent 4.2 days working in fisheries activities (Table 50).

Table 50: Average number of days spent on fishery related activities.

N	Minimum	Maximum	Mean
Days spent on fishery activities	1	7	4.2

Source: Survey Data, 2007

iv.5.3 Contribution of fishing to household income

Data was collected from the women on the contribution of fishing to household incomes. The women reported that on average fishing contributed about (77.63%) of their household incomes (Table 51).

Table 51: Percentage contribution of fishing activities.

N	Minimum	Maximum	Mean
Contribution to income	20	100	77.63

Source: Survey Data, 2007

iv.5.4 Average income from fisheries activities

The women reportedly earned a mean of UShs 11,992 per day from fisheries activities they engaged in (Table 52).

Table 52: Average income to women from fishing activities.

N=166	Minimum	Maximum	Mean
Income from fisheries activities	1,000	100,000	11,992

Source: Survey Data, 2007

iv.6 BANK ACCOUNTS/SAVING

iv.6.1 Ownership of bank accounts

The discussions with stakeholders set out to analyze ownership of bank accounts by the different stakeholder groups. The majority of boat owners (66.8%), crew (95%) and the women (81.6%) did not have bank accounts (Table 53). The data indicates that the majority of the groups had no bank accounts and this could be partly attributed to ignorance among fishers and lack of banking facilities.

Table 53: whether respondents had bank accounts

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	67	33.2	10	5.0	35	18.4

No	135	66.8	191	95.0	155	81.6
Total	**202**	**100.0**	**201**	**100.0**	**190**	**100.0**

Source: Survey Data, 2007

.The data for the women stakeholders indicated that majority of them (48.5%) owned the accounts while (42.4%) of them said the accounts were owned by their husbands. However, only (9.1%) of them said that the accounts were owned by both their husbands and the women.

iv.6.2 Years of account ownership

The duration of ownership of bank accounts was also investigated. The average number of years of ownership of bank accounts by boat owners and crew was 4.36 and 3.75 respectively (Table 54). The average number of years of ownership of bank accounts by women was 4.65. The data revealed that on average the women maintained accounts in banks longer than the boat owner and crew stakeholders.

Table 54: Years of account ownership

Group	N	Minimum	Maximum	Mean
Boat owners	66	1	22	4.36
Boat crew	8	1	7	3.75
Women	23	1	12	4.65

Source: Survey Data, 2007

iv.6.3 Location of the Bank

The location of banks was examined and the results indicated that most of the fisheries stakeholders had their accounts in the main district towns, followed by other districts (Table 55). The data revealed that the existence of banks was very limited within villages near to landing sites and this was one of the reasons for the low saving culture among fisheries stakeholders.

Table 55: Location of bank

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Within this village	3	4.3	2	9.5	1	2.3
Another village nearby	3	4.3	3	14.3	--	--
Main loc/ward/SC town	5	7.1	--	--	1	2.3
Main district town	32	45.7	12	57.1	20	46.5
Other district	27	38.6	4	19.1	20	46.5
Other country	--	--	--	--	1	2.4
Total	**70**	**100.0**	**21**	**100.0**	**43**	**100.0**

Source: Survey Data, 2007

iv.6.4 Belonging to saving schemes

The stakeholder responses were sought on whether they belonged to savings schemes. The data indicated that most of the stakeholders did not belong to savings schemes (Table 56).

Table 56: Belonging to saving schemes

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	52	25.7	26	16.6	62	34.1
No	150	74.3	131	83.4	120	65.9
Total	**202**	**100.0**	**157**	**100.0**	**182**	**100.0**

Source: Survey Data, 2007

iv.6.5 Types of saving schemes

Availability and types of savings schemes for the stakeholders were examined. The data indicated that saving schemes run by local people themselves were the most prevalent, followed by other financing institutions (Table 57).

Table 57: Type of saving scheme

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%

Run by local people themselves	35	67.2	21	84.0	48	78.7
NGO	2	3.8	1	4.0	--	--
Other financing institution	15	28.8	3	12.0	13	21.3
Total	**52**	**100.0**	**25**	**100.0**	**61**	**100.0**

Source: Survey Data, 2007

The reasons for not belonging to savings schemes included the lack of saving schemes near the beaches, no money to save and ignorance of saving, among others (Table 58).

Table 58: reasons for not belonging to savings schemes

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
No savings scheme near enough	36	40.0	34	36.6	21	47.7
No money available to save	23	25.6	38	40.9	16	36.4
Do not want to save money	5	5.6	--	--	1	2.3
Do not know how to save money	1	1.0	1	1.0	--	--
Other	25	27.8	20	21.5	6	13.6
Total	**90**	**100.0**	**93**	**100.0**	**44**	**100.0**

Source: Survey Data, 2007

iv.6.6 Years spent in saving schemes

With respect to the years spent in savings schemes, the data showed that on average, boat owners had spent 2.72 years; crew members had spent 2.30 years while the women had spent 2.71 years in saving schemes (Table 59).

Table 59: Years of account ownership

	N	Minimum	Maximum	Mean

Boat owners	48	1	13	2.72
Boat crew	22	1	7	2.30
Women	66	1	20	2.71

Source: Survey Data, 2007

iv.6.7 Receiving Credit

The majority of the respondents reported that they had not received credit from financial institutions while only some had received (Table 60). The table indicates that the majority of boat owners (78.7%), crew members (92.3%) and women (82.6%) had not received credit from financial institutions.

Table 60: Receiving credit

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	43	21.3	12	7.7	30	17.4
No	159	78.7	143	92.3	142	82.6
Total	**202**	**100.0**	**155**	**100.0**	**172**	**100.0**

Source: Survey Data, 2007

iv.6.8 Type of credit institution

The types of credit institutions from which fisheries stakeholders accessed loans were examined. The data shows that most of the stakeholders accessed credit from micro-finance institutions (52.4%) of boat owners, (41.7%) of crew, and (48.5%) of the women). The other credit institutions used included savings and credit organizations (SACCOS) and banks. However, a significant percentage of boat owners (11.9%) and crew (16.7%) accessed credit from friends and family (Table 61).

Table 61: Type of credit institution

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Bank	11	26.2	2	16.7	7	21.2

SACCOS	2	4.7	2	16.7	5	15.1
Micro finance institution	22	52.4	5	41.7	16	48.5
NGO	1	2.4	1	8.2	--	--
Friends or family	5	11.9	2	16.7	--	--
Fish factory agent	--	--	--	--	--	--
Fish factory	--	--	--	--	--	--
Other	1	2.4	--	--	5	15.2
Total	**42**	**100.0**	**12**	**100.0**	**33**	**100.0**

Source: Survey Data, 2007

iv.6.9 Reasons for Credit

The reasons for accessing credit varied as majority of the women (33.3%) reportedly accessed credit to start new businesses while boat owners (53.7%) and crew (45.5%) accessed credit to invest in fishing (Table 62).

Table 62: Reasons for credit

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
To start a new business	7	17.0	3	27.2	11	33.3
Build a house	2	4.9	--	--	4	12.1
Buy land	4	9.8	--	--	2	6.0
Invest in fishing	22	53.7	5	45.5	10	30.3
Other	6	14.6	3	27.3	6	18.2
Total	**41**	**100.0**	**11**	**100.0**	**33**	**100.0**

Source: Survey Data, 2007

iv.6.10 Difficulties to Credit Repayment

The stakeholders were asked whether they found any difficulties in receiving credit. The results showed that the majority of the boat owners (69%) and crew (58.3%) did not have any difficulties in credit repayment. However, most of the women (65.6%) reported having difficulties in credit repayment (Table 63), due to failure of businesses, delayed repayment of credit sales as well as failure by clients to pay all the credit back (Table 64).

Table 63: Whether stakeholders had difficulties to credit repayment

Response	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	13	31.0	5	41.7	21	65.6
No	29	69.0	7	58.3	11	34.4
Total	**42**	**100.0**	**12**	**100.0**	**32**	**100.0**

Source: Survey Data, 2007

Table 64: Problems faced in credit repayment

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Could not pay it all back	--	--	--	--	3	15.0
Could not pay back in time	9	75.0	2	50.0	11	55.0
Business failed	2	16.7	1	25.0	5	25.0
Other	1	8.3	1	25.0	1	5.0
Total	**12**	**100.0**	**4**	**100.0**	**20**	**100.0**

Source: Survey Data, 2007

iv.6.11 Alternative uses of Credit

The stakeholder groups were interviewed on alternative uses of credit. The Table 65 summarizes the results from the analysis. Most boat owners (56.3%) used the credit to buy fishing gears and boats. Majority of women (38.6%), however, used them to expand their businesses.

Table 65: Alternative uses of credit

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Expand your business	--	--	--	--	51	38.6
Buy fishing gears and boat	81	56.3	73	48.6	6	4.5
Rent fishing gears and boat	--	--	--	--	--	--

Set up other fisheries business	16	11.1	27	18.0	32	24.3
Set up non-fish business at landing site	10	6.9	13	8.7	16	12.1
Set up non-fish business away from beach	18	12.5	23	15.3	16	12.1
Buy land	5	3.5	4	2.7	5	3.8
Build a house	7	4.9	6	4.0	3	2.3
Other	7	4.9	4	2.7	3	2.3
Total	**144**	**100.0**	**150**	**100.0**	**132**	**100.0**

Source: Survey Data, 2007

iv.7 MOBILE PHONES

The usage, ownership and expenditure on mobile phones were examined as part of the survey.

iv.7.1 Ownership of mobile phones

With respect to ownership of mobile phones majority of boat owners (55.4%) owned them while most of the crew (68.2%) and women (76.4%) did not own mobile phones by the time of the survey (Table 66).

Table 66: Whether fishers owned mobile phones

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	112	55.4	64	31.8	46	23.6
No	90	44.6	137	68.2	149	76.4
Total	**202**	**100.0**	**201**	**100.0**	**195**	**100.0**

Source: Survey Data, 2007

iv.7.2 Years of mobile phone ownership

On average boat owners had owned mobile phones for 3.79 years followed by women (2.78 years) and crew (2.07 years) (Table 67).

Table 67: Years of mobile phone ownership

	N	Minimum	Maximum	Mean
Boat owners	110	1	15	3.79
Boat crew	58	1	6	2.07
Women	36	1	8	2.78

Source: Survey Data, 2007

iv.7.3 Reasons for mobile phone ownership

The reasons for mobile phone ownership were also examined. The data indicates that most boat owners (43.9%) owned phones to keep in touch with their homes followed by supporting their businesses (15.4%) (Table 68). Majority of the crew (58.5%) owned phones to keep in touch with their homes followed by supporting their businesses (15.4%) and because every one had a phone (13.8%). Most of the women (47.7%) owned phones to support their other fish businesses followed by keeping in touch with home (22.7%).

Table 68: Reasons for mobile phone ownership

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
To find out about fish prices	12	10.5	4	6.1	3	6.8
To support my other fish businesses	39	34.2	10	15.4	21	47.7
To keep in contact with home	50	43.9	38	58.5	10	22.7
Everyone has a phone	--	--	9	13.8	1	2.3
Other	13	11.4	4	6.2	9	20.5
Total	**114**	**100.0**	**65**	**100.0**	**44**	**100.0**

Source: Survey Data, 2007

iv.7.4 Network usage

With regard to network usage, most of the boat owners (65.2%) and crew (66.2%) used the MTN network while majority of the women (64.4%) used the Celtel network (Table 69).

Table 69: Type of network used

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
MTN	75	65.3	43	66.1	13	28.9
Celtel	34	29.6	20	30.8	29	64.4
Other	6	5.2	2	3.1	3	6.7
Total	**115**	**100.0**	**65**	**100.0**	**45**	**100.0**

Source: Survey Data, 2007

iv.7.5 Expenditure on mobile phones

During the survey, expenditures on phones were examined and the results indicated that boat owners spent a weekly average of Shs 10,193 on airtime, crew members spent UShs 7,427 while the women spent UShs 6,815 weekly (Table 70).

Table 70: Weekly expenditure on airtime

	N	Minimum	Maximum	Mean
Boat owners	106	500	100,000	10,193
Boat crew	59	1,000	80,000	7,427
Women	38	2,000	30,000	6,815

Source: Survey Data, 2007

iv.8 BEACH MANAGEMENT UNITS

The study investigated membership of fisheries stakeholders to BMUs, participation in the voting processes, attendance of BMU meetings and decision making.

iv.8.1 Membership to BMUs

The groups reported that majority of them were members of BMUs. However, few could distinguish between a BMU member and executive committee membership, as was revealed during the survey. The data indicates that most of the boat owners (84.2%), crew (76.6%) and women (59.1%) were members of BMUs by the time of the study (Table 71).

Table 71: whether fishers were BMU members

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	170	84.2	154	76.6	114	59.1
No	32	15.8	47	23.4	79	40.9
Total	**202**	**100.0**	**201**	**100.0**	**193**	**100.0**

Source: Survey Data, 2007

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iv.8.2 Participation in the BMU Voting Process

The boat owners (84.2%), crew (72.6%) and women (61%) reportedly voted during the elections for the BMU committee within their respective beaches (Table 72). The analysis revealed that many fisheries stakeholders were still not registered members of BMUs which had constrained fisheries management significantly.

Table 72: Participation in the BMU voting process

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	170	84.2	146	72.6	108	61.0
No	32	15.8	55	27.4	69	39.0
Total	**202**	**100.0**	**201**	**100.0**	**177**	**100.0**

Source: Survey Data, 2007

iv.8.3 Attending BMU meetings

Attendance of BMU meetings by the different stakeholder groups was examined and the reasons for and against BMU meetings were also sought. From the data, a cross section analysis of the results showed that the women did not attend as many BMU meetings as the crew and boat owners. However, the results show that majority of the boat owners (80.2%), crew (72.1%) and women (54.5%) reported attending meetings (Table 73).

Table 73: Attending BMU meetings

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	162	80.2	145	72.1	96	54.5
No	40	19.8	56	27.9	80	45.5
Total	**202**	**100.0**	**201**	**100.0**	**176**	**100.0**

Source: Survey Data, 2007

On average, boat owners have attended the BMUs 3.25 times; boat crew 1.88 times nd women 4.10 times (Table 74).

Table 74: Number of BMU assembly meetings attended

	N	Minimum	Maximum	Mean
Boat owners	163	1	24	3.25
Boat crew	145	1	4	1.88
Women	89	1	27	4.10

Source: Survey Data, 2007

The main reason for not attending by boat owners was that they were not around when the meeting was held (64.3%), for crew it was the same reason (51.3%) and for women there were other reasons for not attending (Table 75).

Table 75: Reason for not attending meetings

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
No meetings have taken place	6	21.4	7	17.9	11	13.6
Was not around when the meetings were held	18	64.3	20	51.3	13	16.0
Did not want to attend the meetings	1	3.6	6	15.4	3	3.7
Other reason	3	10.7	6	15.4	54	66.7
Total	**28**	**100.0**	**39**	**100.0**	**81**	**100.0**

Source: Survey Data, 2007

iv.8.4 Having great say in decision making

Decision making by fisheries stakeholders was examined and it was observed that 76.7% of the boat owners, 65.1% of crew and 45.0% of the women reported having great say in decision making processes. However, majority of the women (55%) reportedly did not have great say in BMU decision making (Table76).

Table 76: Whether stakeholders had great say in decision making

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	155	76.7	123	65.1	68	45.0
No	47	23.3	66	34.9	83	55.0
Total	**202**	**100.0**	**189**	**100.0**	**151**	**100.0**

Source: Survey Data, 2007

Several reasons were highlighted for and against being able to have great say in decision making by the stakeholder groups and these are presented in the Table 77 below. Generally, those who were able to attend the BMU assembly meetings had opportunity to have great say at the meetings.

Table 77: Reasons for having great say in decision making

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
I am on the BMU committee	25	16.0	4	3.3	21	30.0
I have attended assembly meetings	62	39.7	72	58.5	21	30.0
I have spoken at assembly meetings	45	28.8	26	21.1	21	30.0
The BMU committee has asked me about my views	12	7.7	4	3.3	3	4.3
The representatives on the committee represent us well	2	1.3	9	7.3	--	
Other reason	10	6.4	8	6.5	4	5.7
Total	**156**	**100.0**	**123**	**100.0**	**70**	**100.0**

Source: Survey Data, 2007

Those who did not have a great say in the meetings attributed it mostly to the fact that they did not know much about the BMUs (Table 78).

Table 78: Reasons against having great say in decision making

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
No BMU assembly meeting held	5	14.7	7	15.6	8	11.3
I don't know anything about the BMU	7	20.6	9	20.0	11	15.5
The BMU committee does not listen to people	4	11.8	3	6.7	3	4.2
The BMU chair does what he/she wants	--	--	2	4.4	1	1.4
The new BMU is too young	3	8.8	4	8.9	8	11.3
Other reason	15	44.1	20	44.4	40	56.3
Total	**34**	**100.0**	**45**	**100.0**	**71**	**100.0**

Source: Survey Data, 2007

iv.9 HEALTH ISSUES

During the survey, information and knowledge about HIV/AIDS, information channels, assistance needed and information on nearby health centres were sought.

iv.9.1 Information about HIV/AIDS

The majority of the respondents (97.4% of boat owners, 94.9% of crew and 92.7% of the women) had received information about HIV/AIDS while a few had not as reported during the survey (Table 79).

Table 79: Receiving information about HIV/AIDS

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	190	97.4	185	94.9	179	92.7
No	5	2.6	10	5.1	14	7.3
Total	**195**	**100.0**	**195**	**100.0**	**193**	**100.0**

Source: Survey Data, 2007

iv.9.2 How information was received

Information on HIV/AIDS was received from various channels and the results indicated that the radio was the most common mechanism through which information was received followed by community trainers and from health centres/Voluntary Counseling and Testing (VCT) (Table 80). From the data, majority of the boat owners (53.4%) received information on HIV/AIDS from radios followed by community trainers (23.3%). Most of the crew (50.3%) received information on HIV/AIDS from radios followed by health centres (21.1%). Majority of the women (56%) received information on HIV/AIDS from radios followed by health centres (19.2%) (Table 80).

Table 80: How information was received

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
From a health centre/VCT	31	16.1	39	21.1	35	19.2
From the radio	103	53.4	93	50.3	102	56.0
From local drama	7	3.6	8	4.3	4	2.2
From a leaflet	2	1.0	1	0.5	--	--
Community trainer	45	23.3	38	20.5	32	17.6
Others	5	2.6	6	3.2	9	4.9
Total	**193**	**100.0**	**185**	**100.0**	**182**	**100.0**

Source: Survey Data, 2007

iv.9.3 Knowledge on HIV/Aids

The results from the survey indicated that few of the women (34.9%) and boat crew (44.2%) had knowledge about HIV/AIDS while 50.0% of the boat owners had the knowledge (Table 81). The results depict how fisheries stakeholders have been neglected as regards information on the AIDS scourge.

Table 81: Knowledge on HIV/AIDS

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	98	50.0	87	44.2	68	34.9
No	98	50.0	110	55.8	127	65.1
Total	**196**	**100.0**	**197**	**100.0**	**195**	**100.0**

Source: Survey Data, 2007

iv.9.4 Delivery channels to receive information

The respondents were asked about how they preferred to receive more information about HIV/AIDS and the results indicated that majority of the boat owners preferred community trainers (36.7%) followed by barazas (30.0%) and radio programs (20.0%) (Table 82). Most of the crew (40.9%) preferred barazas, followed by community trainers (26.8%) and radio programs (21.3%). The majority of the women (36.1%) preferred community trainers followed by barazas (31.3%) and radio programs (16.7%). Other channels through which stakeholders could access more HIV/AIDS information included; clinics, posters and information in newspapers, among others.

Table 82: Delivery channels needed to receive information

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
From a clinic	6	5.0	10	7.9	20	13.9
Leaflet	6	5.0	2	1.6	--	--
Poster	--	--	1	0.8	--	--
Radio programmes	24	20.0	27	21.2	24	16.7
Barazas	36	30.0	52	40.9	45	31.2
Community trainer	44	36.7	34	26.8	52	36.1
Information in newspapers			--	--	--	--
Others	4	3.3	1	0.8	3	2.1
Total	**120**	**100.0**	**127**	**100.0**	**144**	**100.0**

Source: Survey Data, 2007

iv.9.5 Assistance Needed

Information on assistance needed to address HIV/AIDS was also sought. The results show that most boat owners (68%) needed more education/information about HIV/AIDS followed by provision of ARVs (20.1%) and VCT (5.2%) while majority of crew members (67.5%) needed more information/education followed by provision of ARVs (19%) and Voluntary Counseling and Testing (6.5%). Most women (54.2%) also needed more information and education followed by provision of ARVs (28.6%) (Table 83).

Table 83: Health assistance most needed by stakeholders

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
More education/information	132	68.0	135	67.5	104	54.2
VCT	10	5.2	13	6.5	7	3.6
ARVs	39	20.1	38	19.0	55	28.6
Support to orphans/widows	6	3.1	4	2.0	12	6.3
Other	7	3.6	10	5.0	14	7.3
Total	**194**	**100.0**	**200**	**100.0**	**192**	**100.0**

Source: Survey Data, 2007

iv.9.6 Receiving Health Treatment

Respondent views were sought on whether they received treatment for any ailment in the last one month by the time of the survey. The data revealed that most boat owners (59%), crew (63.6%) and women (66.3%) had not received treatment (Table 84).

Table 84: Receiving health treatment

	Boat owners		Boat crew		Women	
	Freq	%	Freq	%	Freq	%
Yes	80	41.0	72	36.4	65	33.7
No	115	59.0	126	63.6	128	66.3
Total	**195**	**100.0**	**198**	**100.0**	**193**	**100.0**

Source: Survey Data, 2007

Treatment was received from varied areas as reported by the respondents but most of them received it from private clinics at the beaches, private health centres near beaches and referral hospitals in the main district towns (Table 85).

Table 85: Where treatment was got

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Referral hospital	9	10.8	3	3.8	9	11.1
District/provincial hospital	7	8.4	3	3.8	6	7.4
Public dispensary	1	1.2	6	7.6	1	1.2
Public health centre	22	26.6	22	27.8	29	35.8
Private dispensary/hospital	3	3.6	3	3.8	1	1.3
Private clinic	29	35.0	33	41.8	28	34.6
Traditional healer	--	--	1	1.3	--	--
Missionary hospital/dispensary	2	2.4	--	--	--	--
Pharmacy/chemist	2	2.4	3	3.8	--	--
Drug Kiosk/drug store	7	8.4	5	6.3	7	8.6
Other	1	1.2	--	--	--	--
Total	**83**	**100.0**	**79**	**100.0**	**81**	**100.0**

Source: Survey Data, 2007

iv.9.7 Distance to Health Facilities

The distance to health facilities was examined and it was observed that most boat owners (78.9%) reported the nearest health facility to be in the beach village followed by in the district (20.6%) while most crew (76.1%) reported that health facilities were located within the villages surrounding the beaches followed by with in the district (23.4%) and the majority of the women (71.4%) reported that health facilities were found within the beach villages followed by within the district (24.7%) (Table 86).

Table 86: Distance to the nearest health facility

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
In this village	157	78.9	150	76.1	130	71.4
In this district	41	20.6	46	23.4	45	24.7
In neighboring district	1	0.5	1	0.5	7	3.8
Total	**199**	**100.0**	**197**	**100.0**	**182**	**100.0**

Source: Survey Data, 2007

The mean distance to the nearest health facility was also examined and the data showed that boat owners moved an average distance of 4.35 km while crew moved for about 2.95 km and the women moved for an average of 2.92 km. (Table 87).

Table 87: Distance to nearest health facility

	N	Minimum	Maximum	Mean
Boat owners	117	0.25	80.0	4.35
Boat crew	121	0.01	60.0	2.95
Women	124	0.10	19.0	2.92

Source: Survey Data, 2007

iv.9.8 Nearest Health Facility

The survey set out to examine the nearest health facility that was available to the stakeholders. The data shows that the nearest health facilities available to fisheries stakeholders were private clinics, followed by public health centres and private dispensaries/hospitals (Table 88).

Table 88: Nearest health facility

	Boat owners		Boat Crew		Women	
	Freq	%	Freq	%	Freq	%
Referral hospital	--	--	--	--	9	4.8
District/provincial hospital	4	2.5	1	0.5	4	2.1
Public dispensary	6	3.8	4	2.0	7	3.7
Public health centre	50	31.6	13	6.5	69	36.5
Private dispensary/hospital	5	3.3	53	26.7	1	0.5
Private clinic	71	45.0	5	2.5	73	38.6
Traditional healer	1	0.6	96	48.2	2	1.1
Missionary hospital/dispensary	2	1.3	1	0.5	3	1.7
Pharmacy/chemist	1	0.6	1	0.5	1	0.5
Kiosk/drug store	18	11.4	25	12.6	20	10.7
Total	**193**	**100.0**	**199**	**100.0**	**189**	**100.0**

Source: Survey Data, 2007

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 Main Fishery and occupation of stakeholders

The study re-affirmed that main fisheries targeted by boat owners and crew were still Nile perch tilapia and mukene. Majority of the women (39%) were engaged in both fish processing and trading, followed by those in fish trading only (23.5%) and fish processing (16%) as their main occupation.

The majority of boat owners (37.1%) were born in other districts bordering the lake followed by other districts not bordering the lake (24.8%). However, most of the boat crew (33.3%) and women (40.5%) were born in other districts not bordering the lake followed by other districts bordering the lake (i.e 29.9% and 34% respectively). Most were Ugandans while a few were Kenyans and Tanzanians.

5.1.2 Residence status at beach

Most of the respondents 89.6% (boat owners), 87.1% (crew) and 83.8% (women) permanently lived at the beaches where they operated while a few of them temporarily lived at those beaches. The mean numbers of years lived at the beaches were 13.97 for boat owners, 9.01 for crew members and 7.79 for women. For fishers who had moved, the majority had done so for work purposes while only 3.6% (boat owners), 5.3% (crew) and 16.2% (women) had moved for family reasons.

5.1.3 Age and education

The mean ages of respondents were 36.2 years (boat owners), 29.60 years (crew) and 34.49 years (women). The levels of education among fishing communities were still very low, with some (7.9%) of the boat owners having had no education, (41.1%) not completed primary education while (24.3%) had not completed secondary education. Of the crew, (51.2%) had incomplete primary education, followed by those who had incomplete secondary education (20.4%).

5.1.4 Income and expenditure

The majority of the respondents ranked income from boats and gears, employment and trading and processing as their main sources of household income. The main source of own

income were income from boats and gears, employment and trading and processing. The mean numbers of income sources were 2.2, 1.69 and 2.29 for boat owners, for boat crew and for women respectively. Variations were reported in stakeholder incomes over the years, whereby the incomes to most stakeholders had generally decreased over the last year. This was attributed to scarcity of fish, less value for some fish and less work among others.

Respondents ranked food, followed by school fees and medical costs as the main items on which own income was spent. The main items of household expenditure were food followed by school fees and medical costs respectively. Majority of the women respondents revealed that they made decisions on own and household expenditure alone.

5.1.5 Boat owners' activities

Of all the boat owners interviewed (95.5%) were males and only (4.5%) were females. The mean number of boats owned was 1.0 boat. The majority (57.9%) of them went fishing on their boats while (42.1%) of them did not. The mean number of crew was 4. The majority (72.9%) often used the same crew members. Most of them changed their crew staff every few months while others changed them annually. Majority of the boat owners (95.1%) paid their crew in cash followed by those who paid in shares of the catch (2.7%).

Boat owners made an average of 4 trips a week. The number of trips was determined by such factors like having other businesses to attend to, insufficient boat crew to employ and when it was not worth it financially. Boat owners earned UShs 32,476 on average per fish trip.

5.1.6 Boat crew members

The mean number of years worked by the beat crew 6.56 years. Several crew members were involved in different activities before joining fishing, including: farming, agricultural labour, trading in food and non-food items among others. The majority had not worked on other boats (65.2%).

The weekly average number of days spent on income generating activities was 4.64 days.

Respondents (boat crew) worked the number of days they worked because they were enough to commit themselves to working according to 12.4% where as the others did not want to work for more days (12.9%).

Others worked for the number of days that they worked because the boat that they worked on was supposed to operate for only those number of days (7.9%) and there was not more work available with other boat owners (0.6). The mean number of busy months in a year was 4 but some crew reported that they were busy throughout the year.

The majority of the crew were paid in cash (92.5%) whereas others were paid under the share system. Majority of them were paid each day that they worked (95.0%) with only a small proportion not paid at the same day when they worked. On average fishing contributes most to the household incomes of crew members (88.49%).

5.1.7 Women participation

On average, women had 2.3 sources of income. They spent on average 4.2 days a week working in fisheries activities, but some of the women spent the whole week doing fisheries related activities.

Fisheries was the main source of household income for most of the women (77.63%). They reportedly earned an average daily income of Ushs. 11,992 from fisheries related work.

5.1.8 Bank accounts, saving and credit

The majority of boat owners (66.8%), crew (95%) and the women (81.6%) did not have bank accounts. Of those who had, the average number of years of ownership of the bank accounts by boat owners, crew and women were 4.36, 3.75 and 4.65 respectively. They had their accounts in the main district towns, followed by those who had theirs in other districts. Presence of banks was limited within villages near to landing sites and that was one of the reasons for the low saving culture among fisheries stakeholders.

Most of the stakeholders did not belong to savings schemes either. The reasons for this included the lack of saving schemes near beaches, no money to save and ignorance of saving, among others.

The majority of the respondents had not received credit from financial institutions. Most of those who did accessed credit from micro finance institutions (i.e. 52.4% of boat owners, 41.7% of crew, and 48.5% of the women). Other credit institutions used included savings and credit organizations (SACCOS) and banks.

The reasons for accessing credit varied but majority of the women (33.3%) reportedly accessed credit to start new businesses while the boat owners (53.7%) and crew (45.5%) accessed credit to invest in fishing. Majority of boat owners (69%) and crew (58.3%) did not have any difficulties in credit repayment. However, most of the women (65.6%) reported had difficulties in credit repayment due to failure of businesses.

5.1.9 Mobile phones

Majority of boat owners (55.4%) owned mobile phones while most of the crew (68.2%) and women (76.4%) did not. Most boat owners (43.9%) owned phones to keep in touch with their homes, followed by supporting their businesses (15.4%). Majority of the crew who had (58.5%) owned phones to keep in touch with their homes, followed by supporting their businesses (15.4%) and because every one had a phone (13.8%). majority of the women (47.7%) owned phones to support their other fish businesses.

With regard to network usage, most of the boat owners (65.2%) and crew (66.2%) used the MTN network while majority of the women (64.4%) used the Celtel network. Boat owners spent a weekly average of UShs 10,193 on airtime, crew members spent UShs 7,427 while the women spent UShs 6,815 weekly.

5.1.10 Beach Management Units

The majority of stakeholders were members of BMUs although only few could distinguish between a BMU member and executive membership. The majority reportedly voted during the elections for the BMU committee within their respective beaches. However, many respondents were still not registered members of BMUs, which has constrained fisheries management significantly.

Majority of the respondents reported attending BMU meetings regularly. Women did not attend as many BMU meetings as the crew and boat owners. Of those who attended, (76.7%) of the boat owners and (65.1%) of crew reported having great say in decision making processes. However, majority of the women (55%) reportedly did not have great say in BMU decision-making.

5.1.11 Health issues

The majority of stakeholder groups had received information about HIV/AIDS while only a few had not. The information was received from various channels although the radio was the most common medium. Few of the women (34.9%) and boat crew (44.2%) had knowledge about HIV/AIDS while more (50.0%) of the boat owners had the knowledge. The majority of the respondents preferred to receive the information through radio programs, community trainers and 'barazas'. Other channels through which they could access more HIV/AIDS information included clinics, posters and information in newspapers. Most of the respondents needed more education/information about HIV/AIDS, provision of ARVs and VCT.

Most boat owners (59%), crew (63.6%) and women (66.3%) had not received treatment while (41%) of the boat owners, 36.4% of the crew and 33.7% of the women had received treatment in the past one year. The boat owners, crew and women moved an average distance of 4.35 km, 2.95 km and 2.92 km. respectively to receive treatment.

The nearest health facilities available to the fisheries stakeholders were private clinics followed by public health centres and private dispensaries/hospitals.

5.2 Recommendations

Efforts towards increasing and improving social services at landing sites should be stepped-up. This is in view of the fact that many fishers are becoming permanent resident of the beaches and because most of the services available are inadequate and of low quality.

Co-management in the fisheries should be strengthened, to improve participation and decision making by the vulnerable groups. This should involve strengthening the operations of BMUs and creation of BMU networks at the local, national and/or regional levels.

There is need for more studies on the contribution of alternative sources of livelihood to fisher communities, as this research does not effectively capture detailed information on other livelihood sources necessary to take the pressure off the fish stocks.

There is also need to improve awareness among fishers on saving and financial services available to the fishing communities. The general lack of saving culture among fishers

demonstrates the urgent need to establish and strengthen saving schemes and financial institutions for fishers.

More information is needed on the impact of HIV/AIDS in the fisheries and also about general awareness of the scourge by the fishing communities through community awareness programs and training, participatory research etc.

There is also need to continue monitoring the fisheries, given the dynamic nature of the socio-economic and other aspects of the fisheries. This would improve understanding by fisheries managers and policy makers for better decision making and planning.

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Appendix 1: Beaches Sampled by District.

District	Landing Sites	No. of Respondents
Busia	Maduwa/Majanji	18
Bugiri	Bumeru B	18
Bugiri	Butanira-lolwe	18
Bugiri	Maruba	23
Mayuge	Busuyi	24
Mayuge	Ntinkalu	14
Mayuge	Maganda Sagiti	20
Mayuge	Nakirimira	16
Jinja	Masese	24
Jinja	Owenfalls	18
Jinja	Wanyange	24
Mukono	Buwagajo	14
Mukono	Nangoma	18
Mukono	Kiyindi	15
Kampala	Munyonyo	20
Wakiso	Dewe	14
Wakiso	Makusa	26
Wakiso	Lwamunyo	18
Mpigi	Katebo Lwazi	24
Mpigi	Nakaziba	25
Mpigi	Kamaliba	17
Masaka	Lambu	17
Masaka	Dimo	16
Masaka	Misonzi	33
Masaka	Namirembe	16
Kalangala	Kachanga	19
Kalangala	Kasekulo	32
Kalangala	Senero	18
Kalangala	Tubi	17

Rakai	Kasensero	27

Appendix 2: Boat Owners' Questionnaire

LAKE VICTORIA FISHERIES ORGANIZATION
IMPLEMENTATION OF A FISHERIES MANAGEMENT PLAN

SOCIO-ECONOMIC MONITORING QUESTIONNAIRE FEBRUARY 2007

BOAT OWNERS ONLY

Name of Beach …… District……

Date …… Enumerator Initials……

Respondent Number ……

Introduction
The Lake Victoria Fisheries Organization is undertaking a survey around the lake to find out more about people's lives and how they benefit from fishing activities. Could you please spare a few minutes of your time to answer some questions? All responses will be treated with complete confidence and will be used to help the Fisheries Departments plan better for improving people's lives and improving the fisheries.

Main fishery of respondent
Nile perch (outboard) = 1
Nile perch (manual) = 2
Dagaa = 3
Tilapia = 4

Background information
1. Sex of respondent

   Male = 1
   Female = 2

2. Where were you born?

   Within this village = 1
   Another village nearby = 2
   This location/sub-county/ward = 3
   This district = 4
   Other district bordering lake = 5
   Other district not bordering lake = 6
   Other country = 7

Name of district and country……

3. If not born in this village, why did you move here?

For work = 1
Family reasons = 2
Other (please specify) =
3……

4. Do you live at this landing site permanently?
   Yes = 1
   No = 2

5. If yes, for how many years have you lived here? [ ]

6. If no, where do you normally stay?

   Another landing site in same location/sub-county/ward = 1
   Another landing site in same district = 2
   Another landing site in other district = 3
   Not at a fish landing site = 4
   Other = 5

……

7. What is your age? [ ]

8. What is your marital status?

   Never married = 1
   Monogamous married = 2
   Polygamous married = 3
   Living together without marriage = 4
   Separated/divorced = 5
   Widowed = 6

9. If married, for how many years? [ ]

10. If married, have you married before?

    Yes = 1
    No = 2

11. If yes, how many times have you been married? [ ]

12. If married now, did you

    Get married in a church/mosque = 1
    Have a civil marriage = 2
    Customary marriage = 3
    Did nothing = 4
    Other (please specify) = 5

……..

13. Do your spouse(s)/partner(s) live in this household now?

Yes = 1
No = 2

14. If no, where does he/she/they live now?

Another house at the landing site = 1
In the nearby village = 2
In nearby town = 3
In home village = 4
Other (please specify) =
5……

15. What level of education did you reach?

No education = 1
Incomplete primary = 2
Complete primary = 3
Incomplete secondary = 4
Completed Secondary = 5
Higher education = 6

Income and expenditure

16. What are the three main sources of income in your household?
Rank up to three sources.

Activity	**Code**	**Rank**
Fishing income from boats and gear owned	1	
Fishing employment (wages and salaries)	2	
Fish trading & processing	3	
Net making or repairing	4	
Boat building and repairing	5	
Non-fishing employment: private sector	6	
Non-fishing employment: government	7	
Trading in other food commodities	8	
Trading in non-food items	9	
Farming (Crops and Horticulture)	10	
Livestock Farming	11	
Remittances or Transfer payments	12	
Rental income	13	
Other (specify)	14	

Other……

17. What are the main sources of your **own** income?

Rank up to three sources.

Activity	Code	Rank
Fishing income from boats and gear owned	1	
Fishing employment (wages and salaries)	2	
Fish trading & processing	3	
Net making or repairing	4	
Boat building and repairing	5	
Non-fishing employment: private sector	6	
Non-fishing employment: government	7	
Trading in other food commodities	8	
Trading in non-food items	9	
Farming (Crops and Horticulture)	10	
Livestock Farming	11	
Remittances or Transfer payments	12	
Rental income	13	
Other (specify)	14	

Other……

18. How many sources of income does your household have in total? ☐

19. How many boats do you own? ☐

20. Which type of fish do you mainly target?

Nile perch = 1
Tilapia = 2
Dagaa = 3
Other = 4……..

21. Do you go out to fish on your boat?

Yes = 1
No = 2

22. How many crew members do you employ? ☐

23. Do you use the same boat crew all the time?

Yes = 1
No = 2

24. For how many years have your present boat crew worked for you?
There could be a range of years, or list number of years for each crew member.

……

25. If you change your boat crew, how often?

Each month = 1
Every few months = 2
Every year = 3
Other =
4……

26. If you change the boat crew, why?

They leave the landing site = 1
They fish illegally = 2
They are dishonest = 3
Disagreements = 4
Other (please specify) =
5……

27. How many fishing trips do your boats make each day? ☐

28. How many fishing trips do your boats make each week? ☐

29. Why do your boats make this many trips each week?

Not worth it financially going out more often = 1
Not enough boat crew to employ = 2
Fish truck only comes a few times a week = 3
Have other businesses to attend to = 4
Other (please specify) = 5

……..

30. Does your boat always stay at this landing site?

Yes = 1
No = 2

31. If no, how many beaches did your boats fish from in the last year? ☐

32. How do you pay your boat crew?

In cash only = 1
Give share of fish catch = 2
In cash and fish = 3

33. Do you pay them each day they work?

Yes = 1
No = 2

34. How much does fishing contribute to your household income?

All = 100%
If not all, please give a percentage ☐

35. What is your average income from one fish trip? [ ]

36. How has your income from fish catches changed over the last year?

Increased	= 1
Decreased	= 2
Stayed about the same	= 3
Do not know	= 4

37. If your income from fish catches has changed, what is the main reason for the change?

More fish	= 1
Less fish	= 2
More valuable fish	= 3
Fish prices gone up	= 4
Fish prices gone down	= 5
I invested in the business	= 6
Other (please specify) ……	= 7

38. What is your **own** income mainly spent on? Circle up to three items.

Food	= 1
School fees	= 2
House rent	= 3
Business	= 4
Medical costs	= 5
Leisure	= 6
Investment	= 7
Savings	= 8
Other (specify) 9……..	=

39. If living with other people, what is the **household** income mainly spent on? Circle up to three items.

Food	= 1
School fees	= 2
House rent	= 3
Business	= 4
Medical costs	= 5
Leisure	= 6
Investment	= 7
Savings	= 8
Other (specify) 9……	=

40. What is the main way in which you would spend more money?

More food	= 1
Other household consumption	= 2
School fees	= 3
Savings	= 4
Invest in your business	= 5
Other (specify)	= 6……

Bank Account/Savings

41. Do you have a bank account?

Yes = 1
No = 2

42. For how many years have you had the bank account? ☐

43. Where is the bank?

Within this village	= 1
Another village nearby	= 2
Main location/ward/sub-county town	= 3
Main district town	= 4
Other district	= 5
Other country	= 6

Estimate of distance in kms ☐

44. Do you belong to any other savings scheme?

Yes = 1
No = 2

45. If yes, what type of savings scheme is it?

Run by local people for themselves	= 1
NGOs	= 2
Other financing institution	= 3

46. If no, why don't you belong to a savings scheme?

No savings scheme near enough	= 1
No money available to save	= 2
Do not want to save money	= 3
Do not know how to save money	= 4
Other reason (please specify)	= 5

47. For how many years have you belonged to the savings scheme? ☐

48. Have you ever received credit from a financial institution?

Yes = 1
No = 2

49. If yes, what type of institution?

Bank	= 1
SACCOS	= 2
Micro-finance institution	= 3
NGO	= 4
Friends or family	= 5
Fish factory agent	= 6
Fish factory	= 7
Other (please specify)	= 8

…….....

50. Why did you get the credit?

To start a new business	= 1
Build a house	= 2
Buy land	= 3
Invest in fishing	= 4
Other (please specify)	= 5

……

51. Did you have any difficulties paying back the credit?

Yes = 1
No = 2

52. If yes, what?

Could not pay it all back	= 1
Could not pay back in time	= 2
Business failed	= 3
Other (please specify)	= 4

……..

53. If credit was available, what would you use it for?

Buy fishing gears and boat	= 1
Rent fishing gears and boat	= 2
Set up other fisheries business	= 3
Set up non-fisheries business at landing site	= 4
Set up non-fisheries business away from landing site	= 5
Buy land	= 6
Build a house	= 7
Other (please specify)	= 8

……..

Mobile phones

54. Do you own a mobile phone?

Yes = 1
No = 2

55. If yes, how many years have you had a mobile phone for? ☐

56. What is the main reason why you bought a mobile phone? Circle one main reason.

To find out about fish prices	= 1
To support my other businesses	= 2
Security	= 3
To keep in contact with home	= 4
Everyone has a phone	= 5
Other reason (please specify)	= 6

……..

57. Which network do you use?

MTN	= 1
Celtel	= 2
Vodacom	= 3
Safaricom	= 4
Other (specify)	= 5

……..

58. How much do you spend each week on airtime? ☐

BMU

59. Are you a registered member of this or another BMU?

Yes = 1
No = 2

60. Did you vote in the elections for the BMU Committee?

Yes = 1
No = 2

61. Have you attended a meeting of the BMU Assembly in the last six months?

Yes = 1
No = 2

62. If yes, how many? ☐

63. If no, why not?

No meetings have taken place	= 1
Was not around when the meetings were held	= 2
Did not want to attend the meetings	= 3
Other reason (please specify)	= 4

……..

64. Do you have a greater say in making decisions about the fisheries now that the BMU has been formed/reformed than before?

Yes = 1
No = 2

65. If yes, why?

I am on the BMU Committee	= 1
I have attended Assembly meetings	= 2
I have spoken at Assembly meetings	= 3
The BMU Committee has asked me about my views	= 4
The boat crew on the Committee represent us well	= 5
Other reason (please specify)	= 6

……

66. If no, why not?

No BMU Assembly meetings held	= 1
I don't know anything about the BMU	= 2
The BMU Committee does not listen to people	= 3
The BMU Chair does what he/she wants	= 4
The new BMU is too young	= 5
Other reason (please specify)	= 6

……..

Health

67. Have you ever received any information about HIV/AIDS?

Yes = 1
No = 2

68. If yes, how did you receive the information?

From a health centre/VCT	= 1
From the radio	= 2

From local drama = 3
From a leaflet = 4
Community trainer = 5
Other (specify) = 6

…….

69. Do you believe you know enough about HIV/AIDS?

Yes = 1
No = 2

70. If not, how would you like to receive more information?
Circle all that apply.

From a clinic = 1
Leaflet = 2
Poster = 3
Radio programmes = 4
Baraza = 5
Community trainer = 6
Information in newspapers = 7
Other (please specify) = 8

……..

71. What type of assistance is most needed to address HIV/AIDS at this landing site?

More education/information = 1
VCT = 2
ARVs = 3
Support to orphans/widows = 4
Other (please specify) = 5

…….

72. Have you received health treatment in the last month?

Yes = 1
No = 2

73. If yes, where did you get the health treatment from?

Referral hospital = 1
District/provincial hospital = 2
Public dispensary = 3
Public health centre = 4
Private dispensary/hospital = 5
Private clinic = 6

Traditional healer	= 7
Missionary hospital/dispensary	= 8
Pharmacy/chemist	= 9
Kiosk/drug store	= 10
Other (specify)	= 11

……

74. How far is the nearest health facility?

In this village	= 1
In this district	= 2
In neighbouring district	= 3

Estimated kms ☐

75. What is the nearest health facility?

Referral hospital	= 1
District/provincial hospital	= 2
Public dispensary	= 3
Public health centre	= 4
Private dispensary/hospital	= 5
Private clinic	= 6
Traditional healer	= 7
Missionary hospital/dispensary	= 8
Pharmacy/chemist	= 9
Kiosk/drug store	= 10
Other (specify)	= 11

……

Appendix 3: Boat Crew Questionnaire

LAKE VICTORIA FISHERIES ORGANIZATION
IMPLEMENTATION OF A FISHERIES MANAGEMENT PLAN

SOCIO-ECONOMIC MONITORING QUESTIONNAIRE FEBRUARY 2007

BOAT CREW ONLY

Name of Beach …… District……

Date …… Enumerator Initials……

Respondent Number ……

Introduction
The Lake Victoria Fisheries Organization is undertaking a survey around the lake to find out more about people's lives and how they benefit from fishing activities. Could you please spare a few minutes of your time to answer some questions? All responses will be treated with complete confidence and will be used to help the Fisheries Departments plan better for improving people's lives and improving the fisheries.

Main fishery of respondent

Nile perch (outboard)	= 1
Nile perch (manual)	= 2
Dagaa	= 3
Tilapia	= 4

Background information

76. Where were you born?

Within this village	= 1
Another village nearby	= 2
This location/sub-county/ward	= 3
This district	= 4
Other district bordering lake	= 5
Other district not bordering lake	= 6
Other country	= 7

Name of district and country……

77. If not born in this village, why did you move here?

For work	= 1
Family reasons	= 2
Other (please specify)	= 3

…….

78. Do you live at this landing site permanently?

Yes = 1
No = 2

If no, go to question 5.

79. If yes, for how many years have you lived here? ☐

Go to question 6.

80. If no, where do you normally stay?

Another landing site in same location/sub-county/ward	= 1
Another landing site in same district	= 2
Another landing site in other district	= 3
Not at a fish landing site	= 4
Other (please specify)	= 5

……..

81. What is your age? ☐

82. What is your marital status?

Never married	= 1
Monogamous married	= 2
Polygamous married	= 3
Living together without marriage	= 4
Separated/divorced	= 5
Widowed	= 6

If not married, go to question 14.

83. If married, for how many years? ☐

84. If married, have you married before?

Yes = 1
No = 2

10. If yes, how many times have you been married? ☐

11. If married now, did you

Get married in a church/mosque	= 1
Have a civil marriage	= 2
Customary marriage	= 3

Do nothing = 4
Other (please specify) = 5

……

12. Does your spouses/partners live in this household now?

Yes = 1
No = 2

13. If no, where does she/they live now?

Another house at the landing site = 1
In the nearby village = 2
In nearby town = 3
In home village = 4
Other (please specify) = 5

……

14. What level of education did you reach?

No education = 1
Incomplete primary = 2
Complete primary = 3
Incomplete secondary = 4
Completed Secondary = 5
Higher education = 6

Income and expenditure

15. What are the three main sources of income in your household?
Rank up to three sources.

Activity	**Code**	**Rank**
Fishing income from boats and gear owned	1	
Fishing employment (wages and salaries)	2	
Fish trading & processing	3	
Net making or repairing	4	
Boat building and repairing	5	
Non-fishing employment: private sector	6	
Non-fishing employment: government	7	
Trading in other food commodities	8	
Trading in non-food items	9	
Farming (Crops and Horticulture)	10	
Livestock Farming	11	
Remittances or Transfer payments	12	
Rental income	13	
Other (specify)	14	

Other……

16. What are the main sources of your **own** income?
Rank up to three sources.

Activity	**Code**	**Rank**
Fishing income from boats and gear owned	1	
Fishing employment (wages and salaries)	2	
Fish trading & processing	3	
Net making or repairing	4	
Boat building and repairing	5	
Non-fishing employment: private sector	6	
Non-fishing employment: government	7	
Trading in other food commodities	8	
Trading in non-food items	9	
Farming (Crops and Horticulture)	10	
Livestock Farming	11	
Remittances or Transfer payments	12	
Rental income	13	
Other (specify)	14	

Other……

17. How many sources of income does your household have in total? ☐

18. For how many years have you been working as a boat crew? ☐

19. For how many years have you been working on the boat you are working on now? ☐

20. What was your main source of income before becoming a boat crew?

Agricultural labour	1
Farmer (own land)	2
Livestock Farming	3
Non-fishing employment: private sector	4
Non-fishing employment: government	5
Trading in food commodities	6
Trading in non-food items	7
Other (specify)	8

Other……

21. Do you work on other boats?

Yes = 1
No = 2

22. If yes, how many boats in total have you worked on in the last year? ☐

23. How many beaches have you worked on in the last year? ☐

24. Which type of fish do you mainly target?

Nile perch = 1
Tilapia = 2
Dagaa = 3
Other = 4……..

25. How many days a week do you normally go fishing? ☐

26. If crew do not work every week, how many days a month do they go out fishing? ☐

27. Why do you work this number of days on average?

Work enough days = 1
Do not want to work more days = 2
Boat only goes out that many times a week = 3
No more work available with other boat owners = 4
Other (please specify) = 5

……..

28. For how many months of the year is there plenty of work? ☐

29. How are you paid?

In cash only = 1
In share of fish catch, which I sell = 2
In share of fish catch, which is sold by boat owner = 3
In cash and fish = 4

30. Are you paid each day that you work?

Yes = 1
No = 2

31. How many days that you work in a week do you get cash? ☐

32. How much does fishing contribute to your household income?

All = 100%
If not all, please give a percentage ☐

33. If you get paid each day you work, how much is it on average? ☐

34. If you get paid on a weekly basis, how much is your weekly income? | |

35. How has your income from fish catches changed over the last year?

Increased	= 1
Decreased	= 2
Stayed about the same	= 3
Do not know	= 4

36. If your income from fish catches has changed, what is the main reason for the change?

More work	= 1
Less work	= 2
Less fish	= 3
More fish	= 4
More valuable fish	= 5
Fish prices gone up	= 6
Fish prices gone down	= 7
Other (please specify)	= 8

…….

37. What is your **own** income mainly spent on? Circle up to three items.

Food	= 1
School fees	= 2
House rent	= 3
Business	= 4
Medical costs	= 5
Leisure	= 6
Investment	= 7
Savings	= 8
Other (specify)	= 9

……..

38. If living with other people, what is the **household** income mainly spent on? Circle up to three items.

Food	= 1
School fees	= 2
House rent	= 3
Business	= 4
Medical costs	= 5
Leisure	= 6
Investment	= 7
Savings	= 8
Other (specify)	= 9

……..

39. What is the main way in which you would spend more money?

More food	= 1
Other household consumption	= 2
School fees	= 3
Savings	= 4
Invest in your business	= 5
Other (specify)	= 6

……..

Bank Account/Savings

40. Do you have a bank account?

Yes = 1
No = 2

41. For how many years have you had the bank account? ☐

42. Where is the bank?

Within this village	= 1
Another village nearby	= 2
Main location/ward/sub-county town	= 3
Main district town	= 4
Other district	= 5
Other country	= 6

Estimate of distance in kms ☐

43. Do you belong to any other savings scheme?

Yes = 1
No = 2

If no, go to question 46.

44. If yes, what type of savings scheme is it?

Run by local people for themselves	= 1
NGOs	= 2
Other financing institution	= 3

45. For how many years have you belonged to the savings scheme? ☐

46. If no, why don't you belong to a savings scheme?

No savings scheme near enough	= 1
No money available to save	= 2
Do not want to save money	= 3
Do not know how to save money	= 4

Other reason (please specify) = 5

……

47. Have you ever received credit from a financial institution?

Yes = 1
No = 2

48. If yes, what type of institution?

Bank	= 1
SACCOS	= 2
Micro-finance institution	= 3
NGO	= 4
Friends or family	= 5
Fish factory agent	= 6
Fish factory	= 7
Other (please specify)	= 8

…….....

49. Why did you get the credit?

To start a new business	= 1
Build a house	= 2
Buy land	= 3
Invest in fishing	= 4
Other (please specify)	= 5

…….

50. Did you have any difficulties paying back the credit?

Yes = 1
No = 2

51. If yes, what?

Could not pay it all back	= 1
Could not pay back in time	= 2
Business failed	= 3
Other (please specify)	= 4

……..

52. If credit was available, what would you use it for?

Buy fishing gears and boat	= 1
Rent fishing gears and boat	= 2
Set up other fisheries business	= 3

Set up non-fisheries business at landing site = 4
Set up non-fisheries business away from landing site = 5
Buy land = 6
Build a house = 7
Other (please specify) = 8

……..

Mobile phones

53. Do you own a mobile phone?

Yes = 1
No = 2

54. If yes, how many years have you had a mobile phone for? ☐

55. What is the main reason why you bought a mobile phone? Circle one main reason.

To find out about fish prices = 1
To support my other businesses = 2
Security = 3
To keep in contact with home = 4
Everyone has a phone = 5
Other reason (please specify) = 6

……..

56. Which network do you use?

MTN = 1
Celtel = 2
Vodacom = 3
Safaricom = 4
Other (specify) = 5

……..

57. How much do you spend each week on airtime? ☐

BMU

58. Are you a registered member of this or another BMU?

Yes = 1
No = 2

59. Did you vote in the elections for the BMU Committee?

Yes = 1
No = 2

60. Have you attended a meeting of the BMU Assembly in the last six months?

Yes = 1
No = 2

61. If yes, how many? ☐

62. If no, why not?

No meetings have taken place = 1
Was not around when the meetings were held = 2
Did not want to attend the meetings = 3
Other reason (please specify) = 4

……

63. Do you have a greater say in making decisions about the fisheries now that the BMU has been formed/reformed than before?

Yes = 1
No = 2

64. If yes, why?

I am on the BMU Committee = 1
I have attended Assembly meetings = 2
I have spoken at Assembly meetings = 3
The BMU Committee has asked me about my views = 4
The boat crew on the Committee represent us well = 5
Other reason (please specify) = 6

……

65. If no, why not?

No BMU Assembly meetings held = 1
I don't know anything about the BMU = 2
The BMU Committee does not listen to people = 3
The BMU Chair does what he/she wants = 4
The new BMU is too young = 5
Other reason (please specify) = 6

……..

Health

66. Have you ever received any information about HIV/AIDS?

Yes = 1
No = 2

67. If yes, how did you receive the information?

From a health centre/VCT	= 1
From the radio	= 2
From local drama	= 3
From a leaflet	= 4
Community trainer	= 5
Other (specify)	= 6

…….

68. Do you believe you know enough about HIV/AIDS?

Yes = 1
No = 2

69. If not, how would you like to receive more information?
Circle all that apply.

From a clinic	= 1
Leaflet	= 2
Poster	= 3
Radio programmes	= 4
Baraza	= 5
Community trainer	= 6
Information in a newspaper	= 7
Other (please specify)	= 8

……..

70. What type of assistance is most needed to address HIV/AIDS at this landing site?

More education/information	= 1
VCT	= 2
ARVs	= 3
Support to orphans/widows	= 4
Other (please specify)	= 5

…….

71. Have you received health treatment in the last month?

Yes = 1
No = 2

72. If yes, where did you get the health treatment from?

Referral hospital = 1

District/provincial hospital	= 2
Public dispensary	= 3
Public health centre	= 4
Private dispensary/hospital	= 5
Private clinic	= 6
Traditional healer	= 7
Missionary hospital/dispensary	= 8
Pharmacy/chemist	= 9
Kiosk/drug store	= 10
Other (specify)	= 11

……

73. How far is the nearest health facility?

In this village	= 1
In this district	= 2
In neighbouring district	= 3

Estimated kms ☐

74. What is the nearest health facility?

Referral hospital	= 1
District/provincial hospital	= 2
Public dispensary	= 3
Public health centre	= 4
Private dispensary/hospital	= 5
Private clinic	= 6
Traditional healer	= 7
Missionary hospital/dispensary	= 8
Pharmacy/chemist	= 9
Kiosk/drug store	= 10
Other (specify)	= 11

……

Appendix 4: Women Questionnaire

LAKE VICTORIA FISHERIES ORGANIZATION
IMPLEMENTATION OF A FISHERIES MANAGEMENT PLAN

SOCIO-ECONOMIC MONITORING QUESTIONNAIRE FEBRUARY 2007

WOMEN ONLY

Name of Beach …… District……

Date …… Enumerator Initials……

Respondent Number ……

Introduction
The Lake Victoria Fisheries Organization is undertaking a survey around the lake to find out more about people's lives and how they benefit from fishing activities. Could you please spare a few minutes of your time to answer some questions? All responses will be treated with complete confidence and will be used to help the Fisheries Departments plan better for improving people's lives and improving the fisheries.

Main occupation of respondent

Fish processor	= 1
Fish trader	= 2
Fish processor and trader	= 3
Boat owner	= 4
Other (please specify)	= 5

…….

Background information

85. Where were you born?

Within this village	= 1
Another village nearby	= 2
This location/sub-county/ward	= 3
This district	= 4
Other district bordering lake	= 5
Other district not bordering lake	= 6
Other country	= 7

Name of district and country
……

86. If not born in this village, why did you move here?

For work	= 1
Family reasons	= 2

Other (please specify) = 3……..
…….

87. Do you live at this landing site permanently?

Yes = 1
No = 2

88. If yes, for how many years have you lived here? [ ]

89. If no, where do you normally stay?

Another landing site in same location/sub-county/ward = 1
Another landing site in same district = 2
Another landing site in other district = 3
Not at a fish landing site = 4
Other = 5

……..

90. What is your age? [ ]

91. What is your marital status?

Never married = 1
Monogamous married = 2
Polygamous married = 3
Living together without marriage = 4
Separated/divorced = 5
Widowed = 6

92. If married, for how many years? [ ]

93. If married, have you been married before?

Yes = 1
No = 2

94. If yes, how many times have you been married? [ ]

95. If married now, did you

Get married in a church/mosque = 1
Have a civil marriage = 2
Customary marriage = 3
Did nothing = 4
Other (please specify) = 5

……

96. Does your spouse/partner live in this household now?

Yes = 1
No = 2

97. If no, where does he live now?

Another house at the landing site = 1
In the nearby village = 2
In nearby town = 3
In home village = 4
Other (please specify) =
5……..

98. What level of education did you reach?

No education = 1
Incomplete primary = 2
Complete primary = 3
Incomplete secondary = 4
Completed Secondary = 5
Higher education = 6

Income and expenditure

99. What are the three main sources of income in your household?
Rank up to three sources.

Activity	**Code**	**Rank**
Fishing income from boats and gear owned	1	
Fishing employment (wages and salaries)	2	
Fish trading & processing	3	
Net making or repairing	4	
Boat building and repairing	5	
Non-fishing employment: private sector	6	
Non-fishing employment: government	7	
Trading in other food commodities	8	
Trading in non-food items	9	
Farming (Crops and Horticulture)	10	
Livestock Farming	11	
Remittances or Transfer payments	12	
Rental income	13	
Other (specify)	14	

Other…….

100. What are the main sources of your **own** income? Rank up to three sources.

Activity	**Code**	**Rank**
Fishing income from boats and gear owned	1	

Fishing employment (wages and salaries)	2	
Fish trading & processing	3	
Net making or repairing	4	
Boat building and repairing	5	
Non-fishing employment: private sector	6	
Non-fishing employment: government	7	
Trading in other food commodities	8	
Trading in non-food items	9	
Farming (Crops and Horticulture)	10	
Livestock Farming	11	
Remittances or Transfer payments	12	
Rental income	13	
Other (specify)	14	

Other…….

101. How many sources of income does your household have in total? ☐

102. For how many years have you had your main source of income? ☐

103. Does all your own income come from this beach or do you move between beaches to improve your income?

Income from this beach = 1
Move between beaches = 2

104. How many days a week do you normally spend on fisheries-related activities? ☐

105. How much does fishing contribute to your household income?

All = 100%
If not all, please give a percentage ☐

106. What is your average daily income from fisheries?

……..

107. How has your income from fisheries changed over the last year?

Increased = 1
Decreased = 2
Stayed about the same = 3
Do not know = 4

108. If your income from fish catches has changed, what is the main reason for the change?

More fish = 1

Less fish = 2
Fish is more expensive = 3
Too much competition for buying fish = 4
I invested in the business = 5
Other (please specify) = 6

……

109. How has your household income from fisheries changed over the last year?

Increased = 1
Decreased = 2
Stayed about the same = 3
Do not know = 4

110. If your household income from fish catches has changed, what is the main reason for the change?

More fish = 1
Less fish = 2
Fish is more expensive = 3
Too much competition for buying fish = 4
Other (please specify) = 5……

111. Who makes the decision in your household on how household income is spent?

Husband = 1
Other male member of household (state relationship) = 2
Me and husband = 3
Me only = 4
All adult members = 5
Other (please state) = 6

……

112. Who makes the decision in your household on how <u>your own</u> income is spent?

Husband = 1
Other male member of household (state relationship) = 2
Me and husband = 3
Me only = 4
All adult members = 5
Other (please state) = 6

……

113. What is your **own** income mainly spent on? Circle up to three items.

Food = 1
School fees = 2
House rent = 3

Business = 4
Medical costs = 5
Leisure = 6
Investment = 7
Savings = 8
Other (specify) =
9……..

114. What is **household** income mainly spent on? Circle up to three items.

Food = 1
School fees = 2
House rent = 3
Business = 4
Medical costs = 5
Leisure = 6
Investment = 7
Savings = 8
Other (specify) =
9……..

115. What is the main way in which you would spend more money?
More food = 1
Other household consumption = 2
School fees = 3
Savings = 4
Invest in your business = 5
Other (specify) =
6……..

Bank Account/Savings

116. Do you or someone else in your household have a bank account?

Yes = 1
No = 2

117. Who does the bank account belong to?

Me only = 1
Husband = 2
Other male member of household = 3
Me and husband = 4
Other (please state) =
5…….

118. For how many years has that person had the bank account? [ ]

119. Where is the bank?

Within this village = 1
Another village nearby = 2

Main location/ward/sub-county town = 3
Main district town = 4
Other district = 5
Other country = 6

Estimate of distance in kms

120. Do you belong to any other savings scheme?

Yes = 1
No = 2

121. If yes, what type of savings scheme is it?

Run by local people for themselves = 1
NGOs = 2
Other financing institution = 3

122. If no, why don't you belong to a savings scheme?

No savings scheme near enough = 1
No money available to save = 2
Do not want to save money = 3
Do not know how to save money = 4
Other reason (please specify) = 5……

123. For how many years have you belonged to the savings scheme?

124. Have you ever received credit from a financial institution?

Yes = 1
No = 2

125. If yes, what type of institution?

Bank = 1
SACCOS = 2
Micro-finance institution = 3
NGO = 4
Friends or family = 5
Fish factory agent = 6
Fish factory = 7
Other (please specify) = 8

…….....

126. Why did you get the credit?

To start a new business = 1

Build a house = 2
Buy land = 3
Invest in fishing = 4
Other (please specify) =
5……

127. Did you have any difficulties paying back the credit?

Yes = 1
No = 2

128. If yes, what?

Could not pay it all back = 1
Could not pay back in time = 2
Business failed = 3
Other (please specify) =
4……..

129. If credit was available, what would you use it for?

Expand your business = 1
Buy fishing gears and boat = 2
Rent fishing gears and boat = 3
Set up other fisheries business = 4
Set up non-fisheries business at landing site = 5
Set up non-fisheries business away from landing site = 6
Buy land = 7
Build a house = 8
Other (please specify) = 9

……..

Mobile phones

130. Do you own a mobile phone?

Yes = 1
No = 2

131. If yes, how many years have you had a mobile phone for? ☐

132. What is the main reason why you bought a mobile phone? Circle one main reason.

To find out about fish prices = 1
To support my other businesses = 2
Security = 3
To keep in contact with home = 4
Everyone has a phone = 5

Other reason (please specify) =
6……..

133. Which network do you use?

MTN = 1
Celtel = 2
Vodacom = 3
Safaricom = 4
Other (specify) = 5…..
……..

134. How much money do you spend each week on airtime? [ ]

BMU

135. Are you a registered member of this or another BMU?

Yes = 1
No = 2

136. Did you vote in the elections for the BMU Committee?

Yes = 1
No = 2

137. Have you attended a meeting of the BMU Assembly in the last six months?

Yes = 1
No = 2

138. If yes, how many? [ ]

139. If no, why not?

No meetings have taken place = 1
Was not around when the meetings were held = 2
Did not want to attend the meetings = 3
Other reason (please specify) = 4

…….

140. Do you have a greater say in making decisions about the fisheries now that the BMU has been formed/reformed than before?

Yes = 1
No = 2

141. If yes, why?

I am on the BMU Committee = 1

I have attended Assembly meetings = 2
I have spoken at Assembly meetings = 3
The BMU Committee has asked me about my views = 4
The boat crew on the Committee represent us well = 5
Other reason (please specify) = 6

……

142. If no, why not?

No BMU Assembly meetings held = 1
I don't know anything about the BMU = 2
The BMU Committee does not listen to people = 3
The BMU Chair does what he/she wants = 4
The new BMU is too young = 5
Other reason (please specify) = 6

……..

Health

143. Have you ever received any information about HIV/AIDS?

Yes = 1
No = 2

144. If yes, how did you receive the information?

From a health centre/VCT = 1
From the radio = 2
From local drama = 3
From a leaflet = 4
Community trainer = 5
Other (specify) = 6…….

145. Do you believe you know enough about HIV/AIDS?

Yes = 1
No = 2

146. If not, how would you like to receive more information?
Circle all that apply.

From a clinic = 1
Leaflet = 2
Poster = 3
Radio programmes = 4
Baraza = 5
Community trainer = 6
Information in newspapers = 7
Other (please specify) = 8….

147. What type of assistance is most needed to address HIV/AIDS at this landing site?

More education/information	= 1
VCT	= 2
ARVs	= 3
Support to orphans/widows	= 4
Other (please specify)	= 5.

148. Have you received health treatment in the last month?

Yes	= 1
No	= 2

149. If yes, where did you get the treatment from?

Referral hospital	= 1
District/provincial hospital	= 2
Public dispensary	= 3
Public health centre	= 4
Private dispensary/hospital	= 5
Private clinic	= 6
Traditional healer	= 7
Missionary hospital/dispensary	= 8
Pharmacy/chemist	= 9
Kiosk/drug store	= 10
Other (specify)	= 11

150. How far is the nearest place for health treatment?

In this village	= 1
In this district	= 2
In neighbouring district	= 3
Estimated kms	

151. What is the nearest health facility?

Referral hospital	= 1
District/provincial hospital	= 2
Public dispensary	= 3
Public health centre	= 4
Private dispensary/hospital	= 5
Private clinic	= 6
Traditional healer	= 7
Missionary hospital/dispensary	= 8
Pharmacy/chemist	= 9
Kiosk/drug store	= 10
Other (specify)	= 11…….