# THE FISHERWOMEN OF BENIN <br> ROLES, CONSTRAINTS AND POSSIBLE SOLUTIONS 

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## Abstract

Women occupy pivotal positions in the value chain of inland fishery activities in the Global South. Being responsible for processing and marketing, women largely determine the value of the catch and income status of small-scale fisher families. Benin is no exception; approximately 40000 women are employed in the inland fishery sector with buying and selling fish as their main activities. Yet, the inland fishery sector is still dominated by men, which weakens the position of women, with far-reaching consequences for their economic position, safety and food security. Calls for targeted policies that support women in their inland fishery activities are, therefore, justified. Yet, women active in the inland fishery are much under-researched and gender-specific information is missing to support informed decision-making.

This study addresses this paucity of information by surveying 227 women active in the inland fishery sector near Lake Nokoué and Lagoon of Porto-Novo. Their answers reveal information on household and fishery-related activities as well as constraints to their personal development. Some salient details came to the fore. Illiteracy is high, and activities in the fishery sector mainly concentrate on buying fish directly from fishermen and selling at markets.

Women are not organized and most carry out their activities independently. There are frequent conflicts with fishermen about price and quality of the fish and there is a high incidence of conflict between women over buying and selling fish. Constraints include lack of access to credit, travel distance, theft and illnesses. Gender-sensitive policymaking should concentrate on training in technical and material capacities for fish-processing and support in accessing micro-financing. Collaboration in buying fish could leverage their power of negotiation with fishermen and reduce transaction costs.


Fishery activities on inland lakes constitute an important source of income for small-scale fisher families. With a total catch of 11 million tons in 2015 (FAO, 2017a), the inland fishery sector employs 38 million people globally (FAO, 2016a), most of them in low-income countries. Women make up half of the workforce of the global inland fishery sector, occupying important roles in the fishery value chain (FAO, 2016b).

In the traditional setting, men are responsible for the catch and women do the processing and marketing (Béné and Merten, 2008). Despite the importance of the role of women, men still dominate the fishery sector. This undervalues women's contribution to the sector and deprives women of the opportunity to improve their own conditions. Women face challenges such as insufficient tenure rights, lack of basic social services, poor capacity development and lack of gender-sensitive responses to disasters (FAO, 2017b). Gender disparities in the fishing industry can also result in lower labour productivity within the sector and a poor distribution of labour at household and national level (Weeratunge,2010). Furthermore, the frequent "fish-for-sex" transactions between female fish traders and fishermen increase women's risk of HIV infection (Béné and Merten, 2008). According to the FAO (accessed 2017), inadequate recognition of women's contributions hampers sustainable development, resulting in increased poverty and food insecurity. Malnutrition is also directly related to pregnancy complica-
tions, nutritional deficiency and lack of energy. Consistent food shortages lead to reduced capability of physical activity, mental health problems and domestic violence (Lumey and Van Poppel, 2011, Saiz et al., 2016, Althoff, Amatti and Bertmann, 2016; Tarasuk et al., 2015). Globalization of supply chains and market changes, combined with the depletion of fish resources are among the new difficulties that fishing communities are now facing (Weeratunge, 2010). The low presence of women in fishers' organizations is another impediment that contrasts with the increasing recognition of the important role that they play in the industry (Alonso-Población and Siar 2018).

Yet, there is a lack of structured information on women's issues in the inland fishery sector that limits the ability to address pressing concerns that require urgent attention. Indeed, there is little understanding of how well-being is perceived in fishing communities and how this perception differs for women and men. One of the reasons is that contributions of women in the fishery sector are considered part of the domestic work like fetching water, firewood, preparing food and house cleaning (Harrison, 2000). Due to this misperception, women's broader contributions to the fishery sector are often absent in sectoral statistical systems. Consequently, data paucity prevails about women's priorities that could improve their efficiency in the value chain and make them more independent.

The 40000 women employed in fisher communities in Benin are a specific case in point (FCWC, 2017). Though the inland waters of Benin offer various advantages for fishing activities, there is anecdotal information that women in the fishery sector face difficulties concerning the use of appropriate tools and techniques for fresh fish preservation, storage of smoked or dried fish, the inferior performance of ovens, lack of capital as well as difficulties related to transport and place in markets. This research aims to structure information on the women's position in the inland fishery of Benin by surveying 227 women active in the sector. This survey reveals information on household characteristics, fish-ery-related activities and constraints to professional development.

The report is organized as follows - Section 2 presents the sampling framework, survey design, instructions for surveyors and processing of the collected information. Section 3 reports on findings of the survey by subject: general information, activities, constraints and mitigation. Section 4 synthesizes the findings and offers a conclusion.


0ur study is based on a survey among 227 women, aged 20 to 72 years old, who are involved in fishery-related activities in seven cities surrounding Lake Nokoué and the lagoon of Porto-Novo. The concentration of women selected for the interview are presented in Figure 1 where the color change from green to red indicates greater densities.

The sampling method, design of the survey and processing of the data are described in detail by Sonneveld et al. (2018). Here, we summarize this approach. The master sampling frame was based on a survey among fishermen and used to select women randomly for the interviews. The number of women selected by city is proportional to the share of the total population of that city divided by the total population of the seven targeted cities.

Enumerators were trained in the use of the hard copy of the questionnaire and digitalizing the data. The first drafts of the questionnaire were tested and resulted in a final design of a spreadsheet format with scroll-down menus as standard responses supplemented with fields for open answers.

Enumerators received specific information on how to approach respondents, explain the purpose of the survey and conduct the interviews.

Data covered three main subjects: general information, activities, and constraints and mitigation and processed in SAS (attached in a separate SAS file). Output was presented as frequency tables in case that categorical data was reported on and, by means and percentiles for re-al-value information.



esults are presented over three categories: general information (3.1), activities (3.2) and constraints and mitigation (3.3).

### 3.1 GENERAL INFORMATION

The 227 women selected for the interview lived in the following areas: Cotonou, Porto-Novo, Dekanmey, So-Ava, Vekky, Zoungame, Houedome and Ganvie. Most women lived in Cotonou,
the economic capital and largest city in terms of density in Benin (see Table 1). All women worked in the fishing industry or have husbands who work in the fishing sector.

Table 1. Number of respondents by city

| ARRONDISSEMENT/DISTRICT | FREQUENCY | PER CENT |
| :---: | :---: | :---: |
| Cotonou | 52 | 22.91 |
| Dekanmey | 9 | 3.96 |
| Ganvie | 33 | 14.54 |
| Houedome | 20 | 8.81 |
| Porto-Novo | 30 | 13.22 |
| So-Ava | 6 | 2.64 |
| Vekky | 26 | 11.45 |
| Zoungame | 36 | 15.86 |
| Missing | 15 | 6.61 |

The age of the interviewed women was between 20 and 72 years. Of the women participating in this survey, 97 per cent
are married and 98 per cent have children (Table 2 and 3 ).

Table 2. Marital status

| ARE YOU MARRIED? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A4- FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |  |
| NA | 2 | 0.88 | 2 | 0.88 |
| Yes | 220 | 96.92 | 222 | 97.80 |
| No | 5 | 2.20 | 227 | 100.00 |

Table 3. Parental status

| do You have children? |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A5_ | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |  |
| yes | 223 | 98.24 | 223 | 98.24 |  |
| no | 4 | 1.76 | 227 | 100.00 |  |

Data on educational level attained showed that only 5 per cent went to school with secondary education as the highest level of education (Table 4); only 5 per cent of the women can read or write (Appendix Table A1 and Table A2 respectively). Women are slightly more undereducated than their husbands, who attended school in 18 per cent of the cases (Table A3) with some
husbands who followed tertiary education (Table A4). Consequently, men had illiteracy levels of 80 per cent (Table A5, Table A6). The women are aware of the value of education with 97 per cent aiming to let their children go to school (Table A7). Notably, 80 per cent of women want their children to attend university (Table A8).

Table 4. School attendance

|  | DID YOU GO TO SCHOOL? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A3_ | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |  |
| NA | 1 | 0.44 | 1 | 0.44 |  |
| Yes | 12 | 5.29 | 13 | 5.73 |  |
| No | 214 | 94.27 | 227 | 100.00 |  |

Table 5. Highest school level

| WHICH HIGHEST SCHOOL LEVEL DID YOU ATTEND |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A3_1- | FREQUENCY | PER CENT | CUMULATIVE FREQUENCY | CUMULATIVE PER CENT |
| No education | 217 | 95.59 | 217 | 95.59 |
| Primary school | 7 | 3.08 | 224 | 98.68 |
| Secondary school | 3 | 1.32 | 227 | 100.00 |

Table A 16 shows that 4 per cent of the women had not eaten all day multiple times during the last months. In addition, Table A17 shows that 37 per cent of the women consumed only one meal a day several times per month.

Results show that 144 women (63 per cent) own a boat (Table 6) while most have on to three canoes (Table A11). Only 4 per cent own an engine-driven boat or another boat (Table A9 and Table A10). More than half of the respondents, 58 per cent, live in a house. Most houses
have two rooms or fewer (75 per cent), 19 per cent had three to five rooms, and 6 per cent had more than five rooms (Table A13). Notably, 95 respondents indicated there were zero rooms in their houses, which was interpreted by the enumerators as a house with one room. Only 24 per cent have electricity in their houses (Table A14) and fewer than 2 per cent have a refrigerator at their disposal (Table A15). Hence, we may conclude that fisherwomen live in a poor environment.

Table 6. Owner of a boat

| ARE YOU THE OWNER OF A BOAT? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A6_ | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |
| NA | 1 | 0.44 | 1 | 0.44 |
| Yes | 144 | 63.44 | 145 | 63.88 |
| No | 82 | 36.12 | 227 | 100.00 |

### 3.2 ACTIVITIES

Women participating in this survey perform multiple activities related to the fishery sector. Most sold or bought fish (Table 7) while a small percentage is active in fish-cleaning activities (Table
8). According to the data, 27 per cent smoked fish (Table 9) while activities like fishing (Table A18), drying (Table A20) or salting (Table A19) were done by fewer than 3 per cent.

Table 7. Working activities; Fish buying/selling
$\left.\begin{array}{ccccc}\hline & \text { FISH BUYING/SELLING }\end{array}\right]$

Table 8. Working activities; Fish cleaning

|  | FISH CLEANING |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |
| No fish cleaning | 196 | 86.34 | 196 | 86.34 |
| Fish cleaning | 31 | 13.66 | 227 | 100.00 |

Table 9. Working activities; Fish smoking

|  | FISH SMOKING |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PER CENT | CUMULATIVE | CUMULATIVE <br> FREQUENCY |
| No smoking fish | 165 | 72.69 | 165 | 72.69 |
| Smoking Fish | 62 | 27.31 | 227 | 100.00 |

Activities are undertaken mostly alone (Table A21). Only 16 per cent of women work in a group, usually an informal organization; less common are groups or organizations formed out of family or friends. Few women are part of a wom-
en association, 2.5 per cent (Table 10). Only 6 per cent of the women pay a contribution to an organization (Table A22); contribution ranged from 200 to 5000 CFA¹ per year (Table A54).

Table 10. Organization or group

$\left.\begin{array}{ccccc|}\hline & \text { WHAT IS THE TYPE OF ORGANIZATION OR GROUP? }\end{array}\right]$| B2_1_ |
| :---: |
| FREQUENCY |
| No type of group <br> information |
| Informal grouping |
| Group of friends |

[^0]Working in a group or organization is important for 23 per cent of the women and for 5 per cent it is very important (Table A23, Table A23, Table A25). There were different reasons for working in a group: social contacts (Table A26, Table A27,Table A28), exchange of information about market prices (Table A29, Table A30, Table A31), exchange of general information (Table A44, Table A45, Table A46), exchange of information about buying fish (Table A47, Table A48, Table A49) learning from the meetings (Table A32, Table A33, Table A34), the need to work with other women (Table A36, Table A37, Table A38) and safety reasons (Table A38, Table A39, Table A40). None of these reasons can be considered the main reason. However, the highest percentage in the "very important" category was in the exchange of information on market prices (Table A30) Taking care of each other's children did feature as an incentive to work in groups or organizations (Table A41, Table A42, Table A43).

Most women buy their fish directly from the fishermen at the lake (Table A50), precisely 93 per cent. In 33 per cent of the cases, women bought their fish with help from their husband (Table A53). Nearly the same percentage of women bought their fish from other men in their village (Table A51). Fewer than 10 per cent of the women bought fish through middlemen (Table A52). Women sell their fish at markets in their villages or cities (Table A68) or outside (Table A67), 15 per cent sold their fish from their private homes (Table A65) and 10 per cent
sold their fish at the lake (Table A66). Fifty per cent of the women sold their fish at other places (Table A69).

Customers included owners of eating places (53 per cent) or middlemen (41 per cent) as shown in Table A70 and Table A71. Almost half of the customers are other women from the village (Table A72).

As mentioned before, most women work alone; however, 51 per cent of the women travel together (Table A55). For 30 per cent of the women, travelling with other women is hard to organize (Table A58). Only a small number of fishermen required the women to travel alone (Table A57). Seventeen per cent of the women travelled alone for other reasons (Table A59). Almost half of the women feel safe to travel alone on the lake (Table A56). Women who travelled alone explicitly indicated that they preferred not to travel with other women (Table A60). Most of the women (Table A61) travelled together because of safety reasons. Other reasons are transport (Table A62), they did not own a boat, and for better negotiation position (Table A63). Fifty per cent of women indicated there were still other reasons to travel together (Table A64).

A majority (85 per cent) of respondents indicated that prices for fish were not fixed in advance (Table A76) and almost 80 per cent negotiated with fishermen (Table 11). When no negotiation took place, fixed prices were used (Table A76). If the price was too high, 44 per cent of the women went to other fish-
ermen (Table A73), and another 23 per cent negotiated to fix prices with other women (Table A74). Different ways to negotiate were also used by 30 per cent of the women (Table A75). Most of the women indicated it is polite to negoti-
ate (Table A77) and no other reasons are given (Table A78). We conclude that women use various strategies to negotiate and that they feel free to move to other fish sellers for a better price.

Table 11. Negotiation with fisherman

| DO YOU NEGOTIATE WITH FISHERMEN? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B5_ | FREQUENCY | PER CENT | CUMULATIVE FREQUENCY | CUMULATIVE PER CENT |
| NA | 8 | 3.52 | 8 | 3.52 |
| Yes | 181 | 79.74 | 189 | 83.26 |
| No | 38 | 16.74 | 227 | 100.00 |

Table 12 shows 44 per cent of women had conflicts with fishermen. Thirty-five per cent said conflicts were about the price of the fish (Table A79), 12 per cent were about the quantity (Table A81) and 8 per cent about quality (Table A80). Almost 10 per cent of the conflicts arose because fishermen did not comply with previously agreed prices or quality of the fish (Table A82, Table A83). These disputes rarely ( 1 per cent) resulted in violent encounters where people were hurt or needed medical attention (Table A84). Of these violent encounters a 7 per cent occurred last year (Table A92). For 94 per cent there was no information about the current status of the conflicts (Table A93).

What is alarming is the high percentage (47 per cent) of women who had conflicts with other women involved in buying and selling fish (Table A85). Almost

30 per cent of the conflicts were about prices (Table A86), 15 per cent about unfulfilled promises on prices and deliveries (Table A87). Seventeen per cent of the conflicts were due to other reasons (Table A88). More than 6 per cent of the conflicts with other women resulted in violent encounters (Table A89) and 7 per cent of theses clashes happened last year (Table A90). We may conclude that there is a prevailing mistrust among women that affect co-operation ( 84 percent), which could weaken their negotiating power with fishermen.

Table 12. Conflicts with fishermen

DO YOU HAVE CONFLICTS WITH FISHERMEN?

| B6_ | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |
| :---: | :---: | :---: | :---: | :---: |
| Yes | 99 | 43.61 | 99 | 43.61 |
| No | 128 | 56.39 | 227 | 100.00 |

### 3.3 CONSTRAINTS AND MITIGATION

Most of the women (71 per cent) do not experience constraints to their fish-processing activities (Table 13). Main limitations are the absence of tools or processing materials like salt (Table A91). A clear majority of women (79 per cent) who lack knowledge about processing techniques are willing to attend a course (Table A 94). These women are also able
to take a day off to attend the course (Table A95). In addition, their husbands will allow them to attend the course (Table A96) and children are no constraint (Table A97). Likewise, distance is no constraint (Table A98). "Other reasons" for not participating were only applicable to 1 per cent of the women (Table A99).

Table 13. Fish-processing as a constraint to your activities

DO YOU CONSIDER THE PROCESSING OF FISH AS A CONSTRAINT FOR YOUR ACTIVITIES?

| C1_ | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |
| :---: | :---: | :---: | :---: | :---: |
| NA | 2 | 0.88 | 2 | 0.88 |
| Yes | 66 | 29.07 | 68 | 29.96 |
| No | 159 | 70.04 | 227 | 100.00 |

An overwhelming majority of women (99 per cent) consider money as a constraint to their development in the fishery sector (Table A100). As shown in Table 14 most ( 96 per cent) of the women would like to receive micro-financing and will spend it on equipment ( 28 per cent; Table A105), a boat (17 per cent; Table A104) and a smoking machine (27
per cent; Table A102). A small number of women (9 per cent) would use micro-financing to buy a cooling machine (Table A103) and salting fish (07 per cent; Table A101). Over 60 per cent would invest in other ways (Table A106). Almost half (48 per cent) would prefer to receive mi-cro-financing as part of a group (Table A112), the most important reason (37
per cent) being sharing the risk (Table A113). Less important reasons were: the possibility to jointly purchase equipment (10 per cent; Table A114) and the trust in the group of women ( 5 per cent; Table A115). In cases of women who did not want to participate in a joint micro-financing scheme, 28 per cent indicated that they do not trust other women (Table A117), could not handle jointly pur-
chased equipment (10per cent; Table A118) or considered the risk of financing too high (7per cent; Table A119). In 17 per cent of the responses, 'other reasons' was selected (Table A120). Women did not indicate why they did not want to receive micro-financing (Table A107, Table A108, Table A109). Some were not familiar with the system (Table A78) or were afraid of debts. (Table A79).

Table 14. Micro-financing

| WOULD YOU LIKE TO RECEIVE MICRO-FINANCING? |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C2_1_ FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE PER <br> CENT |  |  |
| NA | 2 | 0.88 | 2 | 0.88 |  |
| Yes | 220 | 96.92 | 222 | 97.80 |  |
| No | 5 | 2.20 | 227 | 100.00 |  |

Thirty per cent indicated theft and robbery were a problem in their fishing activities (Table 15). The most stolen items were fish (19 per cent) and basket (12 per cent) (Table A122, Table A123, re-
spectively) but also canoes ( 6 per cent) and other materials (7 per cent) (Table A121, Table A124) Forty per cent were able to catch the thieves multiple times (Table A125).

Table 15. Theft and robbery as a constraint

| dO YOU CONSIDER THEFT AND ROBBERY AS A CONSTRAINT <br> FOR YOUR ACTIVITIES IN THE FISH SECTOR? |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE PER <br> CENT |  |  |
| NA | 1 | 0.44 | 1 | 0.44 |  |  |
| Yes | 75 | 33.04 | 76 | 33.48 |  |  |
| No | 151 | 66.52 | 227 | 100.00 |  |  |

Market information was not considered a constraint to working activities. Of the correctly answered questions (32 per
cent), two people indicated that market information was a constraint and, 71 indicated that this was not the case (Table
16). The main obstacle concerning the marketing of products is the distance that women must travel to reach the
market (22 per cent), low prices in general (17 per cent) and low prices during the fish season (9 per cent).

Table 16. Market information (like prices at different locations) as a constraint

| DO YOU CONSIDER MARKET INFORMATION (LIKE PRICES AT DIFFERENT LOCATIONS) A CONSTRAINT TO YOUR FISHERY ACTIVITIES? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PER CENT | CUMULATIVE FREQUENCY | CUMULATIVE PER CENT |
| False | 154 | 67.84 | 154 | 67.84 |
| Yes | 2 | 0.88 | 156 | 68.72 |
| No | 71 | 31.28 | 227 | 100.00 |

According to Table 17, the efficiency of fish marketing can be improved through various means. More competition (11 per cent), access to a market in the city (13 per cent) and banning of contract fishing (7 per cent) would all improve fish markets most efficiently. On the question of at what level the organization of the fish markets should be improved, 27 per cent said 'at the local level' or 30 per cent at the national level (Table A129).

According to 94 per cent of the respondents, other communities are not a constraint to fish-trading activities (Table A131). Robbery was not a cause of conflicts with other communities (Table A126). Conflicts were mostly with neighboring communities (Table A132) and conflicts were resolved through mediation (Table A127). Relationships with other communities could be improved most efficiently by better agreements on trading fish (Table A133). Table A134 shows that respondents believe conflict resolu-
tion should be at community or governmental level.

Table 17. Improving the functioning of fish markets
$\left.\begin{array}{ccccc}\hline \text { HOW DO YOU THINK THAT THE FUNCTIONING OF FISH MARKETS } \\ \text { CAN BE IMPROVED MOST EFFICIENTLY? }\end{array}\right]$

Several illnesses constrain the practical activities of the women. Twenty-one per cent said HIV/AIDS was a major constraint (Table A135). Most of the respondents (78 per cent) estimated that transmission of the virus could be reduced though advocacy campaigns (Table A136). A majority (58 per cent) said that the government was not doing enough to counter the spread of HIV/ AIDS (Table A137). Malaria and diarrhea are also considered as constraints by 92 per cent and 63 per cent respectively to their fishing activities (Table A138; Table A139). Finally, household tasks are seen as a constraint for fishing-related activities for a 34 per cent (Table A140) of the women.



The results of the survey reveal some particular characteristics of women involved in the fishery sector in Benin. Specifically, there is a high rate of illiteracy among the women; 5 per cent of the respondents went to school, which is low considering women's national literacy rate of 22 per cent (UNESCO, 2017). The survey shows that education is considered important and almost all women want their children to go to school. Access to education among children of fisher families strengthens their chance of finding employment in other sectors or prepares them to improve fishery practices, through, for example, introduction of fish farming.

Fisherwomen are in general mobile as 63 per cent own a boat. Yet, women face constraints by travelling large distances and many activities are undertaken alone. Fish is usually purchased from fishermen on the lake and sold at markets in the city or a nearby town. Work activities of women are mostly focused on marketing activities like selling and buying fish and processing (smoking, drying and salting of fish). Hardly any of the women undertook fishing activities or fish-cleaning activities. This finding might guide gender-sensitive policy interventions.

Furthermore, to provide a targeted orientation of policies, the study assessed the constraints that hamper the women's development in the inland fishery sector. The most important constraint identified is the lack of financial resources (99 per cent). Women are willing to
receive a loan but, 50 per cent prefer to spread the risk by receiving a loan jointly with a group. A striking and alarming fact is the working constraint caused by diseases such as malaria (92 per cent), diarrhea (63 per cent) and HIV/AIDS (21 per cent). This reflects the poor water and sanitation conditions in the municipalities and calls for health interventions (e.g. www.washplus.org) that improve working conditions of fisherwomen.

The degree of organization is low. Most women (84 per cent) do not participate in any type of group or organization and those involved refer mostly to informal groups. Lack of self-organization among fisherwomen is also expressed in a low participation level in fishers' organizations. As stressed by Alonso-Población and Siar (2018), the low participation of women in fisherfolks' organizations does not reflect their important role in the fishing industry. However, women increasingly recognize the importance of working in a group, which is the first step toward an organized voice and better positioning within the sector. A clear example is the 50 percent of women who travel together to buy or sell fish because they cannot afford transport costs alone. Almost 80 per cent of women negotiated with fishermen about the price and quality of the fish. It is possible that these negotiations are a source of conflict because almost half of the women have conflicts with fishermen. What is alarming is the high percentage (47 per cent) of women who had conflicts with other women involved in buying and selling fish, which might indicate a high
level of mistrust and an unprotected and disorganized environment that can lead to social repression of the poorer and less powerful. It is possible that this mistrust explains the lack of co-operation between women, which may impact on negotiations with fishermen.

Considering the results of this survey, we can recommend various action points:

- First, micro-financing institutions should be informed about the important role that women occupy in the fisheries value chain. Additionally, case studies that show how improved equipment and logistical support can economically benefit fisherwomen would build the institutions' confidence in financing wom-en-related fishery activities, individually or in groups. A possible targeted gender-sensitive guarantee fund initiated by (international) non-governmental organizations with support of local or national governments could be a starting point.
- Second, the high conflict incidence between women over prices also merits political attention and further in-depth research. The causes of these conflicts should be studied into more detail to recommend actions or specific regulations that would improve the environment for negotiations. For example, mutual agreements on the price or price range could possibly avoid future uncomfortable situations.
- Third, women do not use any tools or techniques to preserve the fresh fish. The introduction of solar-based cooling machines could help preserve the freshness of the fish and increase its value on the market.
- Fourth, the high incidence of diseases like malaria, diarrhea and HIV/AIDS constitutes a serious burden on the working activities of the fisherwomen. To address the HIV/AIDS epidemic in fishing communities in Benin, the FAO has implemented capacity building and awareness raising activities through the "strategic response to HIV/AIDS for fishing communities in Africa" programme. Concerning diarrhea, a national hand-washing program was introduced but, possibly did not effectively reach and impact the fisher community. There might be two reasons: first, the prevailing illiteracy and, second, the poor housing conditions and limited access to radio and television. Therefore, it is important to design and execute appropriate water and sanitation programs that consider the housing conditions of populations living in areas such as those covered by this study.
- Finally, the willingness of women to organize family matters so that they can participate in courses to improve their skills is encouraging. Extension services should capitalize on this enthusiasm and provide courses that increase the value chain of the fish-processing component and further empower women.


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## Appendix

Table A 1. Illiteracy reading

| CAN YOU READ? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A3_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| yes | 15 | 6.61 | 15 | 6.61 |
| no | 212 | 93.39 | 227 | 100.00 |

Table A 2. Illiteracy writing

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| CAN YOU WRITE? |  |  |  |  |
| A3_4_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| yes | 16 | 7.05 | 16 | 7.05 |
| no | 211 | 92.95 | 227 | 100.00 |

Table A 3. School attendance; Husband

| DID YOUR HUSBAND GO TO SCHOOL? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A4_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| na | 5 | 2.20 | 5 | 2.20 |
| yes | 40 | 17.62 | 45 | 19.82 |
| no | 182 | 80.18 | 227 | 100.00 |

Table A 4. Level of School attendance; husband

|  | WHICH IS THE HIGHEST SCHOOL LEVEL DID HEATTEND? |
| :---: | :---: | :---: | :---: | :---: |

Table A 5. Illiteracy reading; husband

|  | CAN HEREAD? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| na | 5 | 2.20 | 5 | 2.20 |  |
| yes | 39 | 17.18 | 44 | 19.38 |  |
| no | 183 | 80.62 | 227 | 100.00 |  |

Table A 6. Illiteracy writing: Husband

| CAN HE WRITE? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A4_5_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| na | 5 | 2.20 | 5 | 2.20 |
| yes | 39 | 17.18 | 44 | 19.38 |
| no | 183 | 80.62 | 227 | 100.00 |

Table A 7. School attendance; children

|  | DO THEY ATTEND OR ARE YOU PLANNING TO LET THEM GO TO SCHOOL? |
| :---: | :---: | :---: | :---: | :---: |

Table A 8. Which school do you want your children to attend?

| WHICH SCHOOL DO YOU WANT THEM TO ATTEND? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A5_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| No education | 5 | 2.20 | 5 | 2.20 |
| Primary school | 2 | 0.88 | 7 | 3.08 |
| Secondary school | 14 | 6.17 | 21 | 9.25 |
| College | 13 | 5.73 | 34 | 14.98 |
| University | 191 | 84.14 | 225 | 99.12 |
| Other education | 2 | 0.88 | 227 | 100.00 |

Table A 9. Number of engine driven boat

| NUMBER OF BOAT: OTHER ENGINE DRIVEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| 0 | 223 | 98.24 | 223 | 98.24 |  |
| 1 | 4 | 1.76 | 227 | 100.00 |  |

Table A 10. Number of non-engine driven boat

|  | NUMBER OF BOAT: OTHER NON-ENGINE DRIVEN |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |  |
| 0 | 224 | 98.68 | 224 | 98.68 |  |  |  |  |
| 1 | 3 | 1.32 | 227 | 100.00 |  |  |  |  |

Table A 11. Number of canoes

| NUMBER OF BOAT CANOE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| 0 | 86 | 37.89 | 86 | 37.89 |
| 2 | 121 | 53.30 | 207 | 91.19 |
| 3 | 19 | 8.37 | 226 | 99.56 |

Table A 12. Housing; ownership

|  | DO YOU HAVEA HOUSE? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| na | 1 | 0.44 | 1 | 0.44 |  |
| yes | 131 | 57.71 | 132 | 58.15 |  |
| no | 95 | 41.85 | 227 | 100.00 |  |

Table A 13. Housing; Number of rooms

|  | HOW MANY ROOMS HAS YOUR HOUSE? |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| 0 | 95 | 41.85 | 95 | 41.85 |
| 1 | 18 | 7.93 | 113 | 49.78 |
| 2 | 58 | 25.55 | 171 | 75.33 |
| 3 | 20 | 8.81 | 191 | 84.14 |
| 4 | 19 | 8.37 | 210 | 92.51 |
| 5 | 5 | 2.20 | 215 | 94.71 |
| 6 | 7 | 3.08 | 222 | 97.80 |
| 8 | 2 | 0.88 | 224 | 98.68 |
| 10 | 1 | 0.44 | 225 | 99.12 |
| 18 | 1 | 0.44 | 226 | 99.56 |
| 20 | 1 | 0.44 | 227 | 100.00 |

Table A 14. Housing: electricity

DO YOU HAVE ELECTRICITY IN YOUR HOUSE?

|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| na | 95 | 41.85 | 95 | 41.85 |
| yes | 54 | 23.79 | 149 | 65.64 |
| no | 78 | 34.36 | 227 | 100.00 |

Table A 15. Housing; refrigerator.
$\left.\begin{array}{ccccc} & \text { dO YOU HAVE A REFRIGERATOR IN YOUR HOUSE? }\end{array}\right]$.

Table A 16. How many times during the last month did you not had a single meal during the day?

| HOW MANY TIMES DURING THE LAST MONTH DID YOU NOT HAD A SINGLE MEAL DURING THE DAY? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A7_1_ FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| 0 | 219 | 96.48 | 219 | 96.48 |
| 1 | 4 | 1.76 | 223 | 98.24 |
| 4 | 1 | 0.44 | 224 | 98.68 |
| 10 | 2 | 0.88 | 226 | 99.56 |

Table A 17. How many times during the last month did you had one meal per day?

HOW MANY TIMES DURING THE LAST MONTH DID YOU HAD ONE MEAL PER DAY?

| A7_2- | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 144 | 63.44 | 144 | 63.44 |
| 1 | 20 | 8.81 | 164 | 72.25 |
| 2 | 16 | 7.05 | 180 | 79.30 |
| 3 | 12 | 5.29 | 192 | 84.58 |
| 4 | 6 | 2.64 | 198 | 87.22 |
| 5 | 11 | 4.85 | 209 | 92.07 |
| 6 | 4 | 1.76 | 213 | 93.83 |
| 7 | 1 | 0.44 | 214 | 94.27 |
| 8 | 2 | 0.88 | 216 | 95.15 |
| 10 | 7 | 3.08 | 223 | 98.24 |
| 12 | 2 | 0.88 | 225 | 99.12 |
| 16 | 1 | 0.44 | 226 | 99.56 |
| 21 | 1 | 0.44 | 227 | 100.00 |

Table A 18. Working activities; Fishing.

|  | FISHING |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| No fishing | 226 | 99.56 | 226 | 99.56 |
| Fishing | 1 | 0.44 | 227 | 100.00 |

Table A 19. Working activities: Fish salting

|  | FISH SALTING |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| No salting Fish | 221 | 97.36 | 221 | 97.36 |  |
| Salting Fish | 6 | 2.64 | 227 | 100.00 |  |

Table A 20. Working activities: Fish drying

|  | FISH DRYING |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| No drying Fish | 222 | 97.80 | 222 | 97.80 |
| Drying Fish | 5 | 2.20 | 227 | 100.00 |

Table A 21. Activities alone or in a group?

|  | DO YOU PRACTICE THESE ACTIVITIES ALONE OR IN A GROUP? |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FREQUENCY | PERCENTAGE | CUMULATIVE | CREQUENCATIVE |
| Fa | 1 | 0.44 | 1 | 0.44 |
| Alone | 155 | 68.28 | 156 | 68.72 |
| Group | 37 | 16.30 | 193 | 85.02 |
| Sometimes | 34 | 14.98 | 227 | 100.00 |

Table A 22. Organization of a group; contribution

|  | DO YOU PAY A CONTRIBUTION TO THE GROUP ORORGANIZATION? |
| :---: | :---: | :---: | :---: | :---: |

Table A 23 . Organization of a group; contribution

|  | IS THIS ORGANIZATION OR GROUP IMPORTANT FOR YOUR ACTIVITIES? |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B2_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| na | 160 | 70.48 | 160 | 70.48 |
| yes | 53 | 23.35 | 213 | 93.83 |
| no | 14 | 6.17 | 227 | 100.00 |

Table A 24. Organization of a group; not important
$\left.\begin{array}{ccccc|}\hline & & \text { NOT IMPORTANT }\end{array}\right]$

Table A 25. Organization of a group; very important

| VERY IMPORTANT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 222 | 97.80 | 222 | 97.80 |
| true | 5 | 2.20 | 227 | 100.00 |

Table A 26. Organization of a group; social contacts not important.

| SOCIAL CONTACTS NOT IMPORTANT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| no | 225 | 99.12 | 225 | 99.12 |
| true | 2 | 0.88 | 227 | 100.00 |

Table A 27. Organization of a group; social contacts important

| SOCIAL CONTACTS IMPORTANT |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B2_3_1- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |  |  |  |
| False | 215 | 94.71 | 215 | 94.71 |  |  |  |  |  |  |
| True | 12 | 5.29 | 227 | 100.00 |  |  |  |  |  |  |

Table A 28. Organization of a group; social contacts very important

| SOCIAL CONTACTS VERY IMPORTANT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 213 | 93.83 | 213 | 93.83 |
| true | 14 | 6.17 | 227 | 100.00 |

Table A 29. Organization of a group; exchange of information on market prices important EXCHANGE OF INFORMATION ON MARKET PRICES IMPORTANT

| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 224 | 98.68 | 224 | 98.68 |
| true | 3 | 1.32 | 227 | 100.00 |

Table A 30. Organization of a group; exchange of information on market price very important.

|  | EXCHANGE OF INFORMATION ON MARKET PRICES VERY IMPORTANT |
| :---: | :---: | :---: | :---: | :---: |

Table A 31. Organization of a group; exchange of information on market price not important

|  | EXCHANGE OF INFORMATION ON MARKET PRICES NOT IMPORTANT |
| :---: | :---: | :---: | :---: | :---: |

Table A 32. Organization of a group; meetings very important

| I LEARN FROM THE MEETINGS VERY IMPORTANT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 210 | 92.51 | 210 | 92.51 |  |
| true | 17 | 7.49 | 227 | 100.00 |  |

Table A 33. Organization of a group; meetings important

| ILEARN FROM THE MEETINGS IMPORTANT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 218 | 96.04 | 218 | 96.04 |  |
| true | 9 | 3.96 | 227 | 100.00 |  |

Table A 34. Organization of a group; meetings not important

| I LEARN FROM THE MEETINGS NOT IMPORTANT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 224 | 98.68 | 224 | 98.68 |  |
| true | 3 | 1.32 | 227 | 100.00 |  |

Table A 35. Organization of a group; work with other women not important

## I NEED OTHER WOMAN FOR MY WORK NOT IMPORTANT

| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 214 | 94.27 | 214 | 94.27 |
| true | 13 | 5.73 | 227 | 100.00 |

Table A 36. Organization of a group; work with other women very important
$\left.\begin{array}{ccccc}\hline & \text { I NEED OTHER WOMAN FOR MY WORK VERY IMPORTANT }\end{array}\right]$

Table A 37. Organization of a group; work with other women important
$\left.\begin{array}{|ccccc|}\hline & \text { I NEED OTHER WOMAN FOR MY WORKIMPORTANT }\end{array}\right]$

Table A 38. Organization of a group; safe to work with woman very important I FIND IT SAFE TO WORK WITH WOMAN VERY IMPORTANT

| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 211 | 92.95 | 211 | 92.95 |
| true | 16 | 7.05 | 227 | 100.00 |

Table A 39. Organization of a group; safe to work with woman important
I FIND IT SAFE TO WORK WITH WOMAN IMPORTANT

| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 218 | 96.04 | 218 | 96.04 |
| true | 9 | 3.96 | 227 | 100.00 |

Table A 40. organization of a group; safe to work with woman not important

|  | I FIND IT SAFE TO WORK WITH WOMAN NOT IMPORTANT |
| :---: | :---: | :---: | :---: | :---: |

Table A 41. organization of a group; take care of children important

|  | WE CAN TAKE CARE OF EACH OTHER'S CHILDREN IMPORTANT |
| :---: | :---: | :---: | :---: | :---: |

Table A 42. Organization or group; take care of children not important
$\left.\begin{array}{ccccc}\hline & \text { WE CAN TAKE CARE OF EACH OTHER'S CHILDREN }\end{array}\right]$.

Table A 43. organization of group; take care of children very important

## WE CAN TAKE CARE OF EACH OTHER'S CHILDREN

| B2_3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 224 | 98.68 | 224 | 98.68 |
| true | 3 | 1.32 | 227 | 100.00 |

Table A 44. Organization of group; exchange general information important
$\left.\begin{array}{ccccc} & \text { EXCHANGE OF INFORMATION (GENERAL) IMPORTANT }\end{array}\right]$.

Table A 45. Organization of group; exchange general information not important
$\left.\begin{array}{ccccc} & \text { EXCHANGE OF INFORMATION (GENERAL) NOT IMPORTANT }\end{array}\right]$

Table A 46 . Organization of group; exchange general information very important
$\left.\begin{array}{ccccc} & \text { EXCHANGE OF INFORMATION (GENERAL) VERY IMPORTANT }\end{array}\right]$.

Table A 47. Organization of group; Exchange of information on fish buying important
$\left.\begin{array}{ccccc}\hline & \text { EXCHANGE OF INFORMATION ON FISH BUYING IMPORTANT }\end{array}\right]$.

Table A 48. Organization or group; exchange of information on fish buying important

|  | EXCHANGE OF INFORMATION ON FISH BUYING NOT IMPORTANT |
| :---: | :---: | :---: | :---: | :---: |

Table A 49. Organization of group; exchange of information on fish buying very important

|  | EXCHANGE OF INFORMATION ON FISH BUYING VERY IMPORTANT |
| :---: | :---: | :---: | :---: | :---: |

Table A 50. Where do you buy your fish? directly from fisherman on the lake

| DIRECTLY FROM FISHERMEN ON THE LAKE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 15 | 6.61 | 15 | 6.61 |  |
| NA | 1 | 0.44 | 16 | 7.05 |  |
| true | 211 | 92.95 | 227 | 100.00 |  |

Table A 51. Where do you buy your fish? directly from fisherman in my village
$\left.\begin{array}{cccc} & \text { DIRECTLY FROM FISHERMEN IN MY VILLAGE }\end{array}\right]$

Table A 52. Where do you buy your fish? Through middleman

|  | THROUGH MIDDLEMEN |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_CHEZ_LES_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FRERMEDIAIRES | CUMULATIVE <br> INTERCE |  |
| False | 206 | 90.75 | 206 | 90.75 |  |
| true | 21 | 9.25 | 227 | 100.00 |  |

Table A 53. Where do you buy your fish? through my husband

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | THROUGH MY HUSBAND |  |  |  |
| B4- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 151 | 66.52 | 151 | 66.52 |
| true | 76 | 33.48 | 227 | 100.00 |

Table A 54. How much contribution do you pay to the group?

| HOW MUCH CONTRIBUTION DO YOU PAY TO THE GROUP ORORGANIZATION? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B2_3_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| 0 | 213 | 93.83 | 213 | 93.83 |
| 1000 à 5000 | 1 | 0.44 | 214 | 94.27 |
| $200 /$ séance | 1 | 0.44 | 215 | 94.71 |
| 2000 | 1 | 0.44 | 216 | 95.15 |
| 20000 | 1 | 0.44 | 217 | 95.59 |
| 300 | 1 | 0.44 | 218 | 96.04 |
| 500 | 7 | 3.08 | 225 | 99.12 |
| 5000 | 2 | 0.88 | 227 | 100.00 |

Table A 55. Do you travel alone?

|  | DO YOU GO ALONE? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| na | 7 | 3.08 | 7 | 3.08 |  |
| yes | 115 | 50.66 | 122 | 53.74 |  |
| no | 105 | 46.26 | 227 | 100.00 |  |

Table A 56. Do you feel sufficiently safe to go alone to the lake?

|  | DO YOU FEEL SUFFICIENTLY SAFE TO GO ALONE ON THE LAKE? |
| :---: | :---: | :---: | :---: | :---: |

Table A 57. Why do you go alone? Is required by the fisherman who sell the fish

| IS REQUIRED BY THE FISHERMEN WHO SELL THE FISH |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_1_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 224 | 98.68 | 224 | 98.68 |
| True | 3 | 1.32 | 227 | 100.00 |

Table A 58. Why do you go alone? Difficult to organize with other women

## DIFFICULT TO ORGANIZE WITH OTHER WOMEN?

| B4_1_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 156 | 68.72 | 156 | 68.72 |
| true | 71 | 31.28 | 227 | 100.00 |

Table A 59. Why do you go alone? Others

|  | OTHERS |  |  |
| :---: | :---: | :---: | :---: |
| B4_1_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY |
| False | 188 | 82.82 | 188 |
| true | 39 | 17.18 | 227 |

Table A 60 . Would you prefer to go with other women?

| WOULD YOU PREFER TO GO WITH OTHER WOMEN? |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_1_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| na | 186 | 81.94 | 186 | 81.94 |  |
| yes | 11 | 4.85 | 197 | 86.78 |  |
| no | 30 | 13.22 | 227 | 100.00 |  |

Table A 61. Why do you go in a group? For safety reasons

| SAFETY REASONS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_2- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 168 | 74.01 | 168 | 74.01 |
| true | 59 | 25.99 | 227 | 100.00 |

Table A 62. Why do you go in a group? For transport.

| TRANSPORT: I DO NOT HAVE A BOAT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 202 | 88.99 | 202 | 88.99 |  |
| true | 25 | 11.01 | 227 | 100.00 |  |

Table A 63. Why do you go in a group? For negotiation

| NEGOTIATION POSITION |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_2- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 182 | 80.18 | 182 | 80.18 |
| true | 45 | 19.82 | 227 | 100.00 |

Table A 64. Why do you go in a group? Other reasons

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_2- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 108 | 47.58 | 108 | 47.58 |
| true | 119 | 52.42 | 227 | 100.00 |

Table A 65. Where do you sell your fish? From my house

| FROM MY HOUSE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 192 | 84.58 | 192 | 84.58 |
| true | 35 | 15.42 | 227 | 100.00 |

Table A 66. Where do you sell your fish? On the lake

|  | ON THE LAKE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 205 | 90.31 | 205 | 90.31 |  |
| true | 22 | 9.69 | 227 | 100.00 |  |

Table A 67. Where do you sell your fish? On the market in another village

| ON THE MARKET IN ANOTHER VILLAGE |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B4_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |  |  |
| False | 134 | 59.03 | 134 | 59.03 |  |  |  |  |  |
| true | 93 | 40.97 | 227 | 100.00 |  |  |  |  |  |

Table A 68. Where do you sell your fish? On the market in my village

| ON THE MARKET IN MY VILLAGE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 151 | 66.52 | 151 | 66.52 |
| True | 76 | 33.48 | 227 | 100.00 |

Table A 69. Where do you sell your fish? Other places

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| False | 108 | 47.58 | 108 | 47.58 |
| True | 119 | 52.42 | 227 | 100.00 |

Table A 70. Who are your clients? Owners of eating places

| OWNERS OF EATING PLACES |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_4- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 107 | 47.14 | 107 | 47.14 |
| true | 120 | 52.86 | 227 | 100.00 |

Table A 71. Who are your clients? middleman

|  | MIDDLEMEN |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B4_4- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 134 | 59.03 | 134 | 59.03 |  |
| true | 93 | 40.97 | 227 | 100.00 |  |

Table A 72. Who are your clients? House wives from my village.

| HOUSE WIVES FROM MY VILLAGE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B4_4_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 122 | 53.74 | 122 | 53.74 |
| True | 105 | 46.26 | 227 | 100.00 |

Table A 73. How do you negotiate? If the price is too high I go to another fisherman?

| IF THE PRICE IS TOO HIGH I GO TO ANOTHER FISHERMAN? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B5_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 126 | 55.51 | 126 | 55.51 |
| NA | 1 | 0.44 | 127 | 55.95 |
| True | 100 | 44.05 | 227 | 100.00 |

Table A 74. How do you negotiate? We fix a price with a group of women

|  | WE FIX A PRICE WITH A GROUP OF WOMEN |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B5_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 173 | 76.21 | 173 | 76.21 |
| NA | 1 | 0.44 | 174 | 76.65 |
| true | 53 | 23.35 | 227 | 100.00 |

Table A 75. How do you negotiate? Other

|  | OTHERS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B5_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |  |
| False | 159 | 70.04 | 159 | 70.04 |  |  |  |  |
| true | 68 | 29.96 | 227 | 100.00 |  |  |  |  |

Table A 76. Why do you not negotiate with the fishermen? Price is fixed advance

| PRICE IS FIXED IN ADVANCE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B5_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 191 | 84.14 | 191 | 84.14 |
| true | 36 | 15.86 | 227 | 100.00 |

Table A 77. Why do you not negotiate with the fishermen? It is not polite to negotiate

| IT IS NOT POLITETO NEGOTIATE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B5_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 226 | 99.56 | 226 | 99.56 |
| true | 1 | 0.44 | 227 | 100.00 |

Table A 78. Why do you not negotiate with the fishermen? Other reasons

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B5_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 226 | 99.56 | 226 | 99.56 |
| True | 1 | 0.44 | 227 | 100.00 |

Table A 79. Why did you had a conflict with the fisherman? Over the price

|  | OVER THEPRICE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B6_1- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 147 | 64.76 | 147 | 64.76 |  |
| true | 80 | 35.24 | 227 | 100.00 |  |

Table A 80. Why did you had a conflict with the fisherman? Over the quality of the fish

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| QUALITY OF THE FISH |  |  |  |  |  |
| B6_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 208 | 91.63 | 208 | 91.63 |  |
| True | 19 | 8.37 | 227 | 100.00 |  |

Table A 81. Why did you had a conflict with the fisherman? Quantity of the fish is not enough

| QUANTITY OF THE FISH NOT ENOUGH |  |  |  |
| :---: | :---: | :---: | :---: |
| B6_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE |
| False | 199 | 87.67 | FREQUENCY |
| true | 28 | 12.33 | 227 |

Table A 82. Why did you had a conflict with the fisherman?
fisherman did not keep his promise about the price
$\left.\begin{array}{ccccc} & \text { FISHERMAN DID NOT KEEP HIS PROMISE ABOUT THE PRICE }\end{array}\right]$

Table A 83. Why did you had a conflict with the fisherman? fisherman did not keep his promise about the quantity of fish to be delivered

| FISHERMAN DID NOT KEEP HIS PROMISE ABOUT THE QUANTITY OF FISH TO BE DELIVERED |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B6_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 206 | 90.75 | 206 | 90.75 |
| true | 21 | 9.25 | 227 | 100.00 |

Table A 84. Do these conflicts result in violent encounters?
DO THESE CONFLICTS RESULT IN VIOLENT ENCOUNTERS, WHERE PEOPLE WERE, HURT SEVERELY THAT THEY NEEDED MEDICAL ATTENTION OR WERE KILLED?

| B6_1_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| na | 129 | 56.83 | 129 | 56.83 |
| yes | 3 | 1.32 | 132 | 58.15 |
| no | 95 | 41.85 | 227 | 100.00 |

Table A 85. Conflicts with other women

| FISH? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B7_ | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| na | 5 | 2.20 | 5 | 2.20 |
| yes | 106 | 46.70 | 111 | 48.90 |
| no | 116 | 51.10 | 227 | 100.00 |

Table A 86. Why did you a conflict with other woman who are involved in buying and selling fish? over the price

|  | OVER THE PRICE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B7_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 162 | 71.37 | 162 | 71.37 |  |
| True | 65 | 28.63 | 227 | 100.00 |  |

Table A 87. Why did you had a conflict with other woman who are involved in buying and selling fish? we had an arrangement and she did not keep her promise.

|  | WE HAD AN ARRANGEMENT AND SHE DID NOT KEEP HER PROMISE |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B7_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 192 | 84.58 | 192 | 84.58 |
| True | 35 | 15.42 | 227 | 100.00 |

Table A 88. Why did you had a conflict with other woman who are involved in buying and selling fish?Other

|  | OTHERS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B7_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |
| False | 187 | 82.38 | 187 | 82.38 |  |  |
| True | 40 | 17.62 | 227 | 100.00 |  |  |

Table A 89. Conflicts result in violent encounters

| DO THESE CONFLICTS RESULT IN VIOLENT ENCOUNTERS, WHERE PEOPLE WERE, HURT SEVERELY |
| :---: | :---: | :---: | :---: | :---: |
| THAT THEY NEEDED MEDICAL ATTENTION OR WERE KILLED? |

Table A 90. Number of clashes last year

| HOW MANY OF SUCH CLASHES WERE THERE LAST YEAR? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B7_1_2 | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| 0 | 212 | 93.39 | 212 | 93.39 |
| 1 | 3 | 1.32 | 215 | 94.71 |
| 2 | 6 | 2.64 | 221 | 97.36 |
| 3 | 3 | 1.32 | 224 | 98.68 |
| 10 | 3 | 1.32 | 227 | 100.00 |

Table A 91. Main reason of processing fish as a constraint for your activities

| WHAT IS THE MAIN REASON? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C1_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| Not | 161 | 70.93 | 161 | 70.93 |
| I do not have knowledge about processing techniques | 8 | 3.52 | 169 | 74.45 |
| I do not have the material to process fish | 18 | 7.93 | 187 | 82.38 |
| I have the knowledge but not the material | 19 | 8.37 | 206 | 90.75 |
| other | 21 | 9.25 | 227 | 100.00 |

Table A 92. How many of such clashes were there last year?

| HOW MANY OF SUCH CLASHES WERE THERE LAST YEAR? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B7_1_2- | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| 0 | 212 | 93.39 | 212 | 93.39 |
| 1 | 3 | 1.32 | 215 | 94.71 |
| 2 | 6 | 2.64 | 221 | 97.36 |
| 3 | 3 | 1.32 | 224 | 98.68 |
| 10 | 3 | 1.32 | 227 | 100.00 |

Table A 93. How many of such clashes were there last year?

| WHAT IS THE CURRENT STATUS OF THE CONFLICT(S)? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B7_1_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| 0 | 214 | 94.27 | 214 | 94.27 |
| settled | 3 | 1.32 | 217 | 95.59 |
| Under mediation | 1 | 0.44 | 218 | 96.04 |
| Rigel | 9 | 3.96 | 227 | 100.00 |

Table A 94. Would you like to follow a course in fish processing?

|  | WOULD YOU LIKE TO FOLLOW A COURSE IN FISH PROCESSING? |
| :---: | :---: | :---: | :---: | :---: |

Table A 95. Are you able to take a few days off to follow a course in fish processing?

| ARE YOU ABLE TO TAKE A FEW DAYS OFF TO FOLLOW A COURSE IN FISH PROCESSING? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C1_1_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| Na | 200 | 88.11 | 200 | 88.11 |
| yes | 23 | 10.13 | 223 | 98.24 |
| no | 4 | 1.76 | 227 | 100.00 |

Table A 96. What is the reason that you cannot follow a course; l am not allowed to participate from my husband
$\left.\begin{array}{|ccccc|}\hline & \text { I AM NOT ALLOWED TO PARTICIPATE FROM MY HUSBAND }\end{array}\right]$

Table A 97. What is the reason that you cannot follow a course; cannot find a caretaker for my children?

\left.|  | CANNOT FIND A CARETAKER FOR MY CHILDREN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |$\right]$.

Table A 98. What is the reason that you cannot follow a course; I am living too far away to join a course
$\left.\begin{array}{ccccc|}\hline & \text { I AM LIVING TOO FAR AWAY TO JOIN A COURSE }\end{array}\right]$

Table A 99. What is the reason that you cannot follow a course; Others

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C1_1_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 224 | 98.68 | 224 | 98.68 |
| True | 3 | 1.32 | 227 | 100.00 |

Table A 100. Do you consider money to be a constraint to develop your activities in the fishery sector?

|  | C2_ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |
| yes | 225 | 99.12 | 225 | 99.12 |  |  |  |
| no | 2 | 0.88 | 227 | 100.00 |  |  |  |

Table A 101. For what kind of investment related to your fishery activities do you want a micro-financing? Salting fish

| SALTING FISH |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 212 | 93.39 | 212 | 93.39 |
| true | 15 | 6.61 | 227 | 100.00 |

Table A 102. For what kind of investment related to your fishery
activities do you want a micro- financing? Smoking machine.

|  | SMOKING MACHINE |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 165 | 72.69 | 165 | 72.69 |
| true | 62 | 27.31 | 227 | 100.00 |

Table A 103. For what kind of investment related to your fishery activities do you want a micro-financing? Cooling machine.

|  | COOLING MACHINE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C2_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 207 | 91.19 | 207 | 91.19 |  |
| true | 20 | 8.81 | 227 | 100.00 |  |

Table A 104. For what kind of investment related to your fishery activities do you want a micro-financing? Own boat.

|  | OWN BOAT |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 189 | 83.26 | 189 | 83.26 |
| true | 38 | 16.74 | 227 | 100.00 |

Table A 105. For what kind of investment related to your fishery activities do you want a micro-financing? Equipment.

| EQUIPMENT (KNIFES, ETC.) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 163 | 71.81 | 163 | 71.81 |
| true | 64 | 28.19 | 227 | 100.00 |

Table A 106. For what kind of investment related to your fishery activities do you want a micro-financing? Other.

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 90 | 39.65 | 90 | 39.65 |
| true | 137 | 60.35 | 227 | 100.00 |

Table A 107. What is the reason why you do not want micro-
financing? I am not familiar with the system

| I AM NOT FAMILIAR WITH THE SYSTEM |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE PERCENTAGE |
| False | 225 | 99.12 | 225 | 99.12 |
| true | 2 | 0.88 | 227 | 100.00 |

Table A 108. What is the reason why you do not want micro-financing? I am afraid for debts

|  | I AM AFRAID FOR DEBTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C2_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 225 | 99.12 | 225 | 99.12 |  |
| true | 2 | 0.88 | 227 | 100.00 |  |

Table A 109 . What is the reason why you do not want micro-
financing? I am not allowed to take that decision on my own
$\left.\begin{array}{|ccccc|}\hline & \text { IAM NOT ALLOWED TO TAKE THAT DECISION ON MY OWN }\end{array}\right]$

Table A 110. What is the reason why you do not want micro-
financing? The conditions of micro-financing are not good
$\left.\begin{array}{cccccc|}\hline & \text { THE CONDITIONS OF MICRO-FINANCING ARE NOT GOOD }\end{array}\right]$

Table A 111. What is the reason why you do not want micro-financing? Others

|  | OTHERS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C2_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |  |
| False | 227 | 100.00 | 227 | 100.00 |  |  |  |  |

Table A 112. Do you prefer to arrange a micro-financing with a group of women?

| DO YOU PREFER TO ARRANGE A MICRO-FINANCING WITH A GROUP OF WOMEN? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_4_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| Na | 5 | 2.20 | 5 | 2.20 |
| Yes | 109 | 48.02 | 114 | 50.22 |
| No | 113 | 49.78 | 227 | 100.00 |

Table A 113. Why do you prefer micro-financing with a group of women? Sharing the risk

| SHARING THE RISK |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_4_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 142 | 62.56 | 142 | 62.56 |
| NA | 1 | 0.44 | 143 | 63.00 |
| true | 84 | 37.00 | 227 | 100.00 |

Table A 114. Why do you prefer micro-financing with a group of women? More possibilities to jointly purchase equipment

MORE POSSIBILITIES TO JOINTLY PURCHASE EQUIPMENT

| C2_4_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| False | 205 | 90.31 | 205 | 90.31 |
| true | 22 | 9.69 | 227 | 100.00 |

Table A 115. Why do you prefer micro-financing with a group of women? I trust my group of women

| ITRUST MY GROUP OF WOMEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C2_4_1- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 214 | 94.27 | 214 | 94.27 |  |
| true | 13 | 5.73 | 227 | 100.00 |  |

Table A 116. Why do you prefer micro-financing with a group of women? Others

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_4_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 205 | 90.31 | 205 | 90.31 |
| true | 22 | 9.69 | 227 | 100.00 |

Table A 117. Why do you prefer micro-financing with a group of women? Others

|  | NO TRUST |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C2_4_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| False | 164 | 72.25 | 164 | 72.25 |  |
| true | 63 | 27.75 | 227 | 100.00 |  |

Table A 118. Why do you not prefer micro-financing with a group
of women? we cannot handle jointly bought equipment
$\left.\begin{array}{ccccc}\hline & \text { WE CANNOT HANDLE JOINTLY BOUGHT EQUIPMENT }\end{array}\right]$.

Table A 119. Why do you not prefer micro-financing with a group of women? I find the risk of financing still too high

|  | I FIND THE RISK OF FINANCING STILL TOO HIGH |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2_4_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE | CUMULATIVE |
| False | 212 | 93.39 | 212 | 93.39 |
| true | 15 | 6.61 | 227 | 100.00 |

Table A 120. Why do you not prefer micro-financing with a group of women? Others

|  | C2_4_2- |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| FREQUENCY | PERCENTAGE | CUMULATIVE | CUMULATIVE <br> False <br> Frue | 188 |

Table A 121. What has been stolen from you? Canoe

|  | CANOE |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 214 | 94.27 | 214 | 94.27 |
| true | 13 | 5.73 | 227 | 100.00 |

Table A 122. What has been stolen from you? fish

|  | FISH |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE | CUMULATIVE |
| False | 184 | 81.06 | 184 | 81.06 |
| true | 43 | 18.94 | 227 | 100.00 |

Table A 123. What has been stolen from you? baskets

|  | BASKETS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C3_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 200 | 88.11 | 200 | 88.11 |
| true | 27 | 11.89 | 227 | 100.00 |

Table A 124. What has been stolen from you? Others

| OTHERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C3_1- | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| False | 210 | 92.51 | 210 | 92.51 |
| true | 17 | 7.49 | 227 | 100.00 |

Table A 125. Were you able to catch the thief?

| WERE YOU ABLE TO CATCH THE THIEF |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C3_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| 0 | 152 | 66.96 | 152 | 66.96 |
| $1-5$ | 49 | 21.59 | 201 | 88.55 |
| $6-10$ | 7 | 3.08 | 208 | 91.63 |
| $11-15$ | 4 | 1.76 | 212 | 93.39 |
| $16-20$ | 1 | 0.44 | 213 | 93.83 |
| $20+$ | 1 | 0.44 | 214 | 94.27 |
| NA | 11 | 0.44 | 215 | 94.71 |
| Many times | 1 | 0.44 | 226 | 99.56 |
| More than 2 times |  |  |  | 100.00 |

Table A 126. Did the robbery cause a conflict with other communities?

|  | DID THE ROBBERY CAUSE A CONFLICT WITH OTHER COMMUNITIES? |
| :---: | :---: | :---: | :---: | :---: |

Table A 127. How did you settle these conflicts?

| HOW DID YOU SETTLE THESE CONFLICTS? |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C3_4_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |
| Na | 225 | 99.12 | 225 | 99.12 |  |
| Through mediation | 2 | 0.88 | 227 | 100.00 |  |

Table A 128. What is the main constraint concerning the marketing of your produce?

| WHAT IS THE MAIN CONSTRAINT CONCERNING THE MARKETING OF YOUR PRODUCE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C4_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| 0 | 83 | 36.56 | 83 | 36.56 |
| distance |  |  |  |  |
| low prices in |  |  |  |  |
| general |  |  |  |  |

Table A 129. How do you think that the functioning of fish markets can be improved most efficiently?

| C4_2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C4_2 | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| 0 | 85 | 37.44 | 85 | 37.44 |
| More competition | 26 | 11.45 | 111 | 48.90 |
| avoid fixed arrangements | 17 | 7.49 | 128 | 56.39 |
| Direct contact with traders | 11 | 4.85 | 139 | 61.23 |
| Access to other markets outside the lake | 6 | 2.64 | 145 | 63.88 |
| Access to markets in the city | 31 | 13.66 | 176 | 77.53 |
| Access to export markets | 12 | 5.29 | 188 | 82.82 |
| others | 1 | 0.44 | 189 | 83.26 |
| others | 38 | 16.74 | 227 | 100.00 |

Table A 130. At what level of the socialorganization should the improvement of fish market situation be organized?

| AT WHAT LEVEL OF THE SOCIALORGANIZATION SHOULD THE IMPROVEMENT OF FISH MARKET |
| :---: | :---: | :---: | :---: | :---: |
| SITUATION BE ORGANIZED? |

Table A 131. Do you consider your relationship with other communities as a constraint for your fish trading activities

DO YOU CONSIDER YOUR RELATIONSHIP WITH OTHER COMMUNITIES AS A CONSTRAINT FOR YOUR FISH TRADING ACTIVITIES

| C_5 | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| Yes | 13 | 5.73 | 13 | 5.73 |
| No | 214 | 94.27 | 227 | 100.00 |

Table A 132. With which communities do you have a conflict?

| WITH WHICH COMMUNITIES DO YOU HAVE A CONFLICT? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C5_1_ | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| 0 | 214 | 94.27 | 214 | 94.27 |
| Neighbouring community | 12 | 5.29 | 226 | 99.56 |
| other | 1 | 0.44 | 227 | 100.00 |

Table A 133. At what level of the social organization should the improvement of the conflict resolution be organized?

| AT WHAT LEVEL OF THE SOCIALORGANIZATION SHOULD THE IMPROVEMENT OF THE CONFLICT |
| :---: | :---: | :---: | :---: | :---: |
| RESOLUTION BE ORGANIZED? |

Table A 134. How do you think that the relationship with other communities could be improved most efficiently?

HOW DO YOU THINK THAT THE RELATIONSHIP WITH OTHER COMMUNITIES COULD BE IMPROVED MOST EFFICIENTLY

| C5_2_ | FREQUENCY | PER CENT | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PER CENT |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 214 | 94.27 | 214 | 94.27 |
| negotiation <br> better agreements <br> on trading of fish | 5 | 2.20 | 219 | 96.48 |

Table A 135. Do you consider Aids as a constraint for your fishery activities?

| DO YOU CONSIDER AIDS AS A CONSTRAINT FOR YOUR FISHERY ACTIVITIES? |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C6_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |  |  |  |
| yes | 48 | 21.15 | 48 | 21.15 |  |  |  |
| no | 179 | 78.85 | 227 | 100.00 |  |  |  |

Table A 136. What measures could be taken to control the spread of aids?

| WHAT MEASURES COULD BE TAKEN TO CONTROL THE SPREAD OF AIDS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C6_1 | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| other | 6 | 2.64 | 6 | 2.64 |
| 0 | 19 | 8.37 | 25 | 11.01 |
| negotiation | 3 | 1.32 | 28 | 12.33 |
| extension | 178 | 78.41 | 206 | 90.75 |
| Free distribution of condoms | 14 | 6.17 | 220 | 96.92 |
| Improve social control | 7 | 3.08 | 227 | 100.00 |

Table A 137. Do you think that the government is doing enough to control aids in the fisher communities?

| DO YOU THINK THAT THE GOVERNMENT IS DOING ENOUGH TO CONTROL AIDS IN THE FISHER COMMUNITIES |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C6_2_ | FREQUENCY | PERCENTAGE | CUMULATIVE FREQUENCY | CUMULATIVE PERCENTAGE |
| 0 | 18 | 7.93 | 18 | 7.93 |
| Not enough | 132 | 58.15 | 150 | 66.08 |
| enough | 66 | 29.07 | 216 | 95.15 |
| others | 11 | 4.85 | 227 | 100.00 |

Table A 138. Do you consider malaria as a constraint for your fishery activities?

| DO YOU CONSIDER MALARIA AS A CONSTRAINT FOR YOUR FISHERY ACTIVITIES? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C6_3_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| yes | 211 | 92.95 | 211 | 92.95 |
| no | 16 | 7.05 | 227 | 100.00 |

Table A 139. Do you consider diarrhea as a constraint for your fishery activities?

DO YOU CONSIDER DIARRHEA AS A CONSTRAINT FOR YOUR FISHERY ACTIVITIES?

| C6_4_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| Yes | 143 | 63.00 | 143 | 63.00 |
| No | 84 | 37.00 | 227 | 100.00 |

Table A 140. Do you consider your household tasks as a constraint for your fishery activities?

DO YOU CONSIDER YOUR HOUSEHOLD TASKS AS A CONSTRAINT FOR YOUR FISHERY ACTIVITIES?

| C7_ | FREQUENCY | PERCENTAGE | CUMULATIVE <br> FREQUENCY | CUMULATIVE <br> PERCENTAGE |
| :---: | :---: | :---: | :---: | :---: |
| Yes | 78 | 34.36 | 78 | 34.36 |
| No | 149 | 65.64 | 227 | 100.00 |

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www.aced-benin.org


[^0]:    $1 \quad$ CFA $=$ African Financial Community Frank; 1 Euro $=$ CFA 0.00152449.

