**Fish Trade Program Research Methodology**

**WorldFish, NEPAD, AU IBAR**

**Informal Fish Trade Research Handbook**

**June 2015**

# Introduction

The purpose of this document is to present a methodology for undertaking research in informal regional fish trade. It sets out the background and reasoning that have guided the development of the proposed methodology. It also serves as a standard operating procedure for planning, sampling, data collection and analysis of data on informal regional fish trade.

Understanding and measuring informal regional fish trade is key to being able to realistically value fish trade. Not only in monetary terms but also in terms of its role in contributing to national and regional development objectives: livelihoods, employment, food security, poverty reduction, foreign exchange generation.

According to a scoping review (Ward 2015), informal cross border fish trade is thought to be significant but there is a lack of data to back this up. This is due to among others limited tools that can be used for its measurement (Economic Commission for Africa, 2013). At the launch of a Fish Trade program— this is a joint program implemented by the WorldFish Center, the African Union InterAfrican Bureau for Animal Resources (AU-IBAR) and NEPAD Planning and Coordinating Agency (NPCA), which is titled *Improving Food Security and Reducing Poverty through Intra-regional Fish Trade in Sub-Saharan Africa*—in Nairobi, March 2015, workshop participants echoed the importance of informal regional fish trade and the need to understand its volume and how it is undertaken. This requires a comprehensive and sound methodology. Evidence suggests therefore that developing a replicable and practical methodology for investigating informal trade and generating data and associated policy recommendations would be a valuable output from the Fish Trade program.

# Process of developing this methodology

The development of this methodology begun from a writeshop in Lilongwe, Malawi, in April 2015 (Chimatiro, Banda and Kaunda 2015). A small group of participants in the writeshop formed a discussion group and generated initial ideas which have been used to develop further the methodology. The author then consulted several people and project documents, previous similar methodologies and other relevant literature. These consultations were used to develop the research tools, formulate research questions, a questionnaire and analysis for each question. The development field tools were then tested in Mwanza and Sirare Tanzania. Mwanza city on the shores of Lake Victoria is a hub of fisheries activities. In this city fish from the Tanzanian side of the lake is brought here from all regions bordering the lake for export to the regional (across the borders) markets including Democratic Republic of Congo (DRC), Burundi, Rwanda, Kenya, Uganda, South Sudan, Malawi and Zambia. Mara region borders Kenya where fish crosses to the Kenyan. The testing was undertaken by a group consisting of a statistician (lecturer at the University of Dar es Salaam), the author and three former university of Dar es salaam students conversant with the area and fisheries of Tanzania.

Photos

## Operational definition of informal regional fish trade in Africa

Informal regional fish trade can have different meaning to different people. It should however be understood within the framework of informal regional trade. Although it is understood in different ways (Kadonya, Madihi and Mtwana, 2002; Heintz, 2012; Chen, 2007; Schneider, Buehn and Montenegro, 2010; Chen, 2012;Gerxhani, 1999) for this case we find the characterization given by Lesser and Moisé-Leeman (2009) to be relevant. They describe informal regional trade as comprising legitimately produced commodities in one country, which does not go through the normal government laid down channels, and in the process avoiding paying of government taxes and does not meet regulatory requirements. These commodities passes through unofficial routes and avoid customs controls, as well as those that pass through official routes with border crossing points and customs offices yet involve illegal practices. These practices include but not limited to what Macamo, (1998) in ECA (2013) has called

a. Under-invoicing which implies that traders report lower quantities in terms of weight or value for them to pay less or lower import tariffs

b. Mis-classification which involves falsifying the description of goods traded. The aim of this is to misclassify the products for purposes of subjecting them to lower tariffs, and

c Mis-declaration of origin, with or without clandestine operations such as secret deals involving formal importers, exporters, customs and other public officials

Table 1: Characterization of informal regional trade

| **Definition** | **Research application** | **Limitations** |
| --- | --- | --- |
| Registration status of enterprises (enterprise-based) | Enterprises that operate with or without government recognition or regulation (both de facto and de jure). Used to assess lack of access to government services and absence of regulation. | Registration with a government authority may not represent a meaningful distinction with regard to actual practices. |
| Existence of social protections linked to employment (employment-based) | Attempts to capture precarious, vulnerable, and unprotected forms of employment. | Often applies only to paid employees. Different criteria needed for self-employment. The nature of social protection varies across countries. |
| Size of enterprises (enterprise-based) | Often used as a proxy for informal enterprises. Potentially useful for analyzing the economics of small-scale firms. | Size is an imperfect proxy for other aspects of informality. Size often defined only in terms of number of paid employees. |
| Illegal labor practices (employment-based) | Attempts to specifically measure the extent to which labour laws are violated by employers. | Illegality is underreported in statistical sources. Legal forms of employment may be precarious and lack protections. Labour laws are different across countries. |
| 1. Tax evasion and avoidance (enterprise   -based) | Used in studies of the costs and benefits of informality. May be used as a proxy for other types of regulatory avoidance/evasion. Potentially useful for measuring fiscal leakages due to informality.. | Tax evasion/avoidance may also be widespread among firms that would otherwise be considered formal. May not capture labour market vulnerability/lack of social protection. Use as a proxy for other regulatory evasion may not be well-founded. Often fails to take into account taxes which informal firms do pay |
| Non-contribution by employers to social security | Similar to tax evasion/avoidance, but with a more explicit connection to social protections. | This is different in different countries |

Modified from Heinzt, 2012

# Key Principles to guide the study

Undertaking an informal regional fish trade research is equivalent to undertaking an investigation on law-breaking and or similar to investigating criminality. Participants in the informal trade do not want to be known and they also don’t want their operations exposed. Due to this nature of the activity, it is important that researchers take into consideration the following principles:

1. *Confidentiality* and *ethical*. Guarantee that information provided by participants would not incriminate interviewees or their accomplices. It should also guarantee that information obtained would not fall into the “wrong” hands.
2. Need to establish and build relationship of *trust* and rapport with the research targets
3. The study should be *participatory*. Various stakeholders should be involved in the design, implementation and validation of results.
4. The methods should systematically use both *qualitative* and *quantitative* methods. This is important because there are situations during the study where one method would be more relevant than the other.
5. The study should be open to *innovative* approaches given the nature of this activity. This could enable capturing and estimating the volumes of fish traded.
6. *Transparency* among interest group that those being interviewed are not going to jeopardizes the activities of the group
7. *Gender sensitivity* in selection of interviewees and/or survey participants

# Tools and approaches

## Key research questions

1. What Species of fish are being traded within the corridor including capture and aquaculture (inventory)?
2. Who are involved in the regional fish trade (Socio-economic characteristics)?
3. Where do these fish come from (capture / aquaculture/imports)?
4. What are the informal fish trade channels?
5. What fish products are traded and how are these processed?
6. How many are engaged in informal fish trade?
7. What volumes of each product type are traded at different points in the chain and at different times?
8. What is the value of products at different points in the chain?
9. What are the estimated costs of operations for taking fish through the informal channels?
10. How seasonal and what are the long terms trends of value, supply, demand?
11. Where are the main markets (wholesale) and locations of high consumption?
12. How are gender roles and responsibilities at key locations associated with main activities
13. How do policies and regulations influence informal fish trade?

## Hypothesis

Informal regional fish trade contributes significantly to national and regional development objectives.

# Research methods

The study should adopt an innovative methodology that is distinctive in scope and organization. As proposed in the key principles, this study requires an integrated methodology which links partnership and collaborative formation at various levels, research, capacity building, policy influence, communication and dissemination. These include desk literature reviews and analysis, fieldwork and surveys, participatory diagnosis, value chain and gender transformative approaches. It is strongly proposed that a systematic combination of qualitative and quantitative methods should be employed in the collection of primary and secondary data. Table 2 summarizes the key features of the overall methodology for informal regional fish trade. The proposed tools should be read in line with ideas in the Fish Trade Program proposal which include:

*Desk Literature Reviews and Analysis*

Desk reviews and analysis of existing documents is deemed relevant. This can comprise of literature search, evaluation, analysis and interpretation. Information generated from these reviews will inform the field work and also assist in providing information on policy and institutional structures existing.

*Fieldwork and Surveys*

Collecting data on the structure, products, and value of fish trade is the focus of this study. This is aimed at generating rich data from selected trade corridors focused on understanding dynamics, drivers and trends in regional informal fish trade and volumes, paying particular attention to policy and institutional issues, access to markets for different stakeholders, and implications for livelihoods and poverty reduction. A number of survey techniques, inclusive of qualitative and quantitative methods are proposed to be used to gather different but complementary data on various aspects of fish trade. Data on trade channels, species and fish products traded, people involved in the trade structure and operations of the trade should be collected through semi-structured interviews, key informants interviews and questionnaires (See appendix 1), focus group discussions (See appendix 2) and Participatory methods. Secondary data can be collected from records of incomes from fish trade activities will also be collected where relevant. An examination of policy documents on fish trade combined with semi-structured interviews with policymakers will be conducted with the view to understand policy and institutional processes within the sector and likely links to food security and poverty reduction.

*Geographical Information Systems (GIS)*

Geographical Information Systems (GIS) is inevitable to collate, analyze and present information related to movement of fish and fish products. GIS maps representing a diversity of trade routes should be generated with the full involvement of individual traders and associations who will help in the mapping and validating the movement of fish and fish products in the region.

*Participatory and Iterative Approach*

Active participation of key stakeholders, inclusive of fish traders, governments, women’s groups and private sector institutions in designing and implementing the study is critical. Participatory action approach should be embedded throughout the study stages so as to ensure a sense of ownership of the results and recommendations. An iterative approach, on the other hand, ensures that there is adaptive management and progress is built on previous achievements and lessons learned. An iterative approach should focus on joint analysis and planning, execution of the plan, review for progress and learning, and refining of the plan. The idea is to engage actors in the trade and decision makers and key stakeholders from the outset in the identification of key activities in detailing of research questions, choice of methodologies and establishment of dissemination processes and uptake of research findings into actions, practice and policy processes.

*A Value Chain Approach*

The study should adopt a value chain approach and work at different stages in the chain including in transport routes, at border crossings and in urban markets where the majority of consumers live. Taking a value chain approach to intra-regional fish trade should involve addressing the major constraints and opportunities faced by fish traders and associations of fish processors, traders and private associations, at multiple levels and points along the marketing chain.

Value chain approach analyzes the firms in a market chain; from input suppliers to final buyers; and the relationships among them. Too often, many participants in a value chain choose not to collaborate among themselves due to lack of leadership, mistrust of competitors, weak information, or lack of scale. Segmenting the value chain allows for better understanding of the constraints and opportunities within each segment, as well as the context in which the chain operates. Using this approach in this study will help establish the relationships among fish traders that can facilitate production and marketing efficiencies and enable the flow of information, learning, resources and benefits.

*Gender Transformative Approach*

Considering the existence of different gendered roles in the fisheries sector, especially in informal fish trade, the study cannot avoid using a gender transformative approach. This is an approach that develops an awareness and challenges asymmetries in society that work against full participation of women and men in improving their wellbeing. The approach seeks to engage with both women and men, addresses power relations and unequal power dynamics across social groups and crosses scales, challenges oppressive norms, practices and structures.

**Table 2:** Informal regional fish trade toolbox matrix

| **Research questions** | **Variable** | **Respondents** | **Method** |
| --- | --- | --- | --- |
| 1. What species of fish are being traded within the corridor including capture and aquaculture? 2. Who are involved in the regional fish trade 3. Where do these fish come from? | * Species traded * Stakeholders involved in the fish trade (who, what they do, gender aspects, reasons for engaging in informal trade) * Fish products traded * Sources of fish | * Fish markets * Border points * Transporters * Fish traders * Informers | * Participatory Stakeholder analysis * Focus Group Discussion * Key informants (gender sensitivity in selection) * Survey |
| 1. What are the informal fish trade channels? 2. What fish products are traded and how are these processed? | * Identification and mapping of main informal market channels * A flow diagram of the value chain and routes | * Officials dealing with fish trade (DoF, retail market tax collectors) * Fish traders at retail markets * Border revenue collectors * Former traders * Become a trader (under cover) | * Focus Group Discussion (cross section of stakeholders) * Stakeholder analysis * Key informant interviews * Snow balling |
| 1. How many are engaged in informal fish trade? | Estimation of number of participants | * Fishers and farmers * Traders (there may be several different types) * Retailers…there may be several different types * Transporters/carriers * Fishery staff? * Licenses issued | * Landing site questionnaire surveys * Cross border retail market site questionnaire surveys * Border point surveys * Record male/female * Stakeholder analysis |
| 1. What types and volumes of fish and fish products go through informal channels at different times? 2. What is the value of products at different points in the chain 3. What are the estimated costs and incomes of operations for taking fish through the informal channels? 4. How seasonal and what are the long terms trends of value, supply, demand? 5. Where are the main markets (wholesale) and locations of high consumption | Estimation of type and volume of products | * Fishers and farmers * Traders * Retailers * Transporters/truck drivers | * Landing site questionnaire surveys * Mixed methods * Focus Group Discussion * Cross border retail market site questionnaire surveys * Border point monitoring * Observations and calculations * Seasonal calendar * Case study approach * Journal record method: give (depending on time available) a notebook to a selected number of informal traders who can record cost type and level of operational costs as they take product through channel |
| 1. How are gender roles and responsibilities at key locations associated with main activities | Gender roles in the trade | Traders  Retailers | * Focus Group Discussion |
| 1. How do policies and regulations influence informal fish trade? | * Impact of policies and regulations * What are the barrier/constraints to regional fish trade | * Identify policies and regulations influencing informal trade * Review how existing policies and regulations influence cross-border trade * Investigate why traders are using informal channels * Examine effectiveness of implementation * Examine the extent to which P&R facilitate participation of women * Influence of RECs * Influence of political dynamics | * Desktop * Focus Group Discussion * Key informant interviews * Questionnaire survey |

## Participatory stakeholder analysis

## Sampling

It is proposed that sampling should be done at five different locations/levels. These are fish markets, border points, transporters, fish traders and informers (Table 3). At each location/level respondents should be randomly selected. Random sampling is recommended so as to get independent responses without bias. It is important to take note of the number involved in each location or level. If the number is low or very few then all should be interviewed, if they are many i.e. more than 10 then random sampling can be used.

**Table 3:** Sampling methods and justification

|  |  |  |
| --- | --- | --- |
| **Sampling location/level** | **Sampling method** | **Justification** |
| Fish markets | Randomly sampled within each market | Receive independent opinions from different agents |
| Border points | Stratified random sampling: first divide the border points into areas differing traffic density. Then within each border sample randomly | Increase sampling intensity at major border points where traffic is the highest |
| Transporters | Random sampling | Receive independent opinions from different transporters |
| Fish traders | Random sampling | Receive independent opinions from different transporters |
| Informer | Purposive | Few and not easy to get them |

## Data processing and analysis

In order to analyse the data generated Table 4 proposes analysis approaches which are deemed relevant. However, qualitative data should be categorized into various themes and sub-themes identifying respondents perceptions, causes, extent and magnitude of informal regional fish trade. The data should be synthesized before making conclusions. Quantitative data can be processed by using Microsoft office excel or Statistical Package for Social Scientists (SPSS) computer programme and analyzed by using various statistical tests proposed in Table 4. In addition percentages, ratios, frequencies and tabulations can be used. These are just proposals and should not be taken as binding. Other innovative means can be explored.

Table 4: Data analysis matrix

| **Question** | **Statistical analysis** | **Justification** |
| --- | --- | --- |
| 7. Fish species traded within the corridor including capture and aquaculture | Analysis of variance (ANOVA) test: | Compare estimated amounts among countries, species, and products. |
| 8. Why are these fish species preferred in the informal trade? | Chi-square contingency table | Test if preference to certain species or product is significant |
| 9. List the people involved in the informal regional fish trade | Descriptive statistics | Use tables to show the categories of people. |
| 10. What do women do mostly in informal regional fish trade? | Descriptive statistic | Use graphs to illustrate the activities women do in the informal trade and the amount of fish or product they trade |
| 11. Name the fishing water body from which fish species informally crossing the border come from | Use *t* -test or Analysis of variance (ANOVA) | Use graph to show where different type of fish species crossing the border come from. Then use a statistical test to compare the amount of fish species crossing the border. |
| 12. Which fish species crosses the border in large quantities? | *t* -test or Analysis of variance (ANOVA) | Compare the amount of fish species crossing the border.  Tabulate the species of fish and channels used. |
| 13. Which trade channels frequently used for each fish species traded informally in the corridor? | Chi-square contingency table | Test if there is preference to certain trade channels. |
| 14. Which transportation means among the mentioned is most efficient and cheap? | Chi-square contingency tables | Test if preferences for certain types of transport against the cost involved |
| 15. What fish products are in higher demand (list according to demand level) | Descriptive statistics | Use graphs to show the kind of fish product traded and the level of demand. |
| 16. What are the processing stages for the fish products that are in high demand? | Descriptive statistics | Use tables to show the processing stages. |
| 17. Quantify number of people involved in the informal regional fish trade.   1. What quantity of fish species do you transport through informal channels per trip? 2. What quantity of fish is transported through informal channels per day? 3. What type of fish is being transported regularly through informal channels per day? | Mann-Whitney or Kruskal-Wallis test   1. *t* t-test or Analysis of variance (ANOVA) 2. *t* -test or Analysis of variance (ANOVA) 3. Analysis of variance (ANOVA) | Compare number of people involved in the informal fish trade by gender and locations.   1. Compare the quantity of fish by species 2. Compare the quantity of fish transported by each channel.      1. Compare the quantity of fish by type transported by day through the informal channels. |
| 18. What is the value of a product at different points in the channel?   1. What product has the highest value? 2. Where does that product originate from? | 1. *t* -test or Analysis of variance (ANOVA) | 1. Compare the value of fish products at different points along the channel. |
| 19. What are the estimated costs and incomes of operation for taking fish through the informal channels?   1. Which costs do you encounter? 2. Among the estimated costs and incomes of operation, which one is the cheapest and most preferred? | 1. *t* -test and Chi-square contingency tables | 1. Compare the estimated costs and incomes of operation for taking fish through the informal channels. Then find out if there are preferences. |
| 20. How seasonal and what are the long term trends of value, supply and demand?   1. What is the lowest value of the product during unfavorable seasons? 2. What is the highest value of the product during favorable seasons? 3. How do you cope up with the demand when seasons and supplies are not favorable? | 1. *t* -test or Man-Whitney U test 2. *t* -test or Man-Whitney U test 3. None | 1. Compare values of the products during favourable and unfavourable seasons 2. Compare values of the products during favourable and unfavourable seasons 3. None |
| 21. Where are the main markets (whole sales) and location of high consumption?   1. What is the maximum amount of fish products for that main market? 2. What is the lowest amount of fish products for that main market? | Descriptive |  |
| 22. How are gender roles and responsibilities at key locations associated with main activities?   1. What is the rate of women participation in informal fish trade? | None |  |
| 23. How do policies and regulations influence informal fish trade?   1. Do informal fish traders adhere to these policies and regulations? 2. Why do traders use informal channels? 3. Do political dynamics influence informal fish trade? How? | **Gdyn model** -  **Magnet model** for trade policy analysis | can help to determine how changes in policy, technology, population and factor endowments can affect the path of economies over time |

### Estimating fish volume in informal cross-border trade

***Border monitoring method***

A weekly monitoring observation (Ackello-Ogutu, 1996 and Nkendah, 2013) is here proposed. This method is proposed because data recorded at the border customs and or fisheries offices have not captured volumes and or values of informal trade. Moreover there are under-invoicing or false statements by traders so that they can pay less tax.

Border sites to be monitored should be sampled based on factors relevant for each trade corridor but could consider factors such as volume of trade, security, communication, transport links and availability of supporting institutions (guest houses, storage facilities). It is proposed that a two weeks monitoring per month be undertaken for a period of 12 months. Monitoring should adopt a census approach during day time (or anytime that fish is crossing) for all the days of the week. The 12 months proposed is deemed adequate to capture seasonality within a year.

To calculate the annual trade volumes, the following formula should be used.

*Annual trade volume = (Average daily trade volume x number of days in a month)x 12*

The average daily trade volume is calculated by

/*total number of days data is collected*

The value of the quantities traded is the multiplied by the average daily prices to derive the value of the trade in monetary terms.

# Refer to Annex 1 of the toolbox report and see how the process reflects some of the issues related to qualitative and quantitative research approaches

# Fieldworks observations:

* Choice of respondent is important. Avoid leaders of trader groups. Try to interview traders directly.
* Location of interview: For this study interviews should be taken outside government offices.
* Randomly select respondents by yourself not by help of government officers.
* In case the respondent does not answer questions in the questionnaire then ask about his/her knowledge on regional informal fish trade.
* There is need to internalize the questions so that the interview becomes like a talk rather than a question answer
* Time is very important. There is need take time to develop rapport.

The outline of a final report structure is given as Annex 2. See if you can add more detail to this in terms of the content of each section.

# Question guide for key informants and Focus group Discussions

## Value, volumes, demand and supply of specific market chains

To generate an understanding of informal regional fish trade economic importance, contribution to livelihoods and food security. This should enable piecing together an understanding from a corridor perspective the species, products and supply chains which are likely to exist within each corridor.

## Question guide for Key informants and Focus Group Discussions

### Value, volumes, demand and supply of specific market chains

To generate an understanding of informal regional fish trade economic importance, contribution to livelihoods and food security. This should enable piecing together an understanding from a corridor perspective the species, products and supply chains which are likely to exist within each corridor.

**Key questions**

1. Species of fish traded within the corridor (capture and aquaculture species)
2. Fish products traded and how they are processed including value chain
3. The origin of the fish and its products (capture / aquaculture/imports)
4. Volume of each product type at different points in the chain (use a table) (**Note:** sample landing sites which are sources of fish into the regional market)
5. What are the costs items and amount at each stage of the trade
6. Main markets (wholesale) and locations of high consumption
7. Demand and supply to destination – per capita consumption and regional variations
8. Seasonality and long term trends of value, supply, demand
9. Gender roles and responsibilities at key locations and associated with main activities

Methods

* Quantitative interviews can be made with departments of fisheries staff.
* Data can be presented via GIS Maps.
* Wholesale markets are important data collection locations.
* Corridor analysis has also been carried out by the World Bank.
* Quantitative data is available from FAO, Fish Stat, Trade ministries, and ADB trade corridors.
* VAF study 2014 is an important study to refer to in terms of data and methodology.
* The focus needs to be clarified in terms of species, products, e.g. inland and marine small pelagic fish fresh/preserved, farmed as well as capture, formal and informal trade.

### Informal fish trade channels

**Objectives**

Generate a detailed understanding of the key supply routes, constraints, prices and costs, actors involved and flow of products

**Key questions**

1. Trade routes taken for each species and products
2. Flows of product, volume and seasonality
3. Prices and costs at different stages of the supply chain
4. Actors involved, who are they, where are they, what do they do?
5. What linkages exist between actors
6. Constraints and advantages in each trade route
7. Main markets (wholesale) and locations of high consumption
8. Seasonality and long terms trends of value, supply, demand
9. Gender roles and responsibilities at key locations and associated with main activities

### Policies and regulations

**Objective**

To examine how national, regional and international policies and regulations affect informal fish trade.

**Key questions**

1. Policies and regulations affecting regional trade
2. National and regional institutions involved in promoting regional trade
3. Barriers to regional trade
4. Enforcement of regional policies and regulations in relation to regional trade

# Using this methodology in the field

**Key steps in the study process**

# Observations Made During the Field Study

10.1 Products being imported/exported

* Fish species
* Products e.g. Nile Perch swim bladder
* Destination of the commodities/products

10.1 Who are involved in cross-border trade?

* Men, women, youth
* Nationality of the exporters/importers
* Informants, who are they and how do they operate?

10.3 Transit and transport cost

* Cost of cross-border trade in terms of tariff
* Mode of transportation
* Cost of transportation
* Mode of transit (official or none-official crossing)
* Transit cost (informants, bribes etc)

10.4 Mechanics of cross-border trade

* Describe the form of transactions as we had discussed Dar es Salaam
* Also based on observations made on the border during the off-hours

## Appendix 1: Questionnaire for interviews (Household survey,

1) Respondent ID…………………………………………………………………………….

2) Country……………………………………………………………………………………

3) Region…………………………………………………………………………………….

4) Location of respondent……………………………………………………………………

5) Type of respondent’s activity/ occupation………………………………………………...

6) Respondent gender (male/female) and age ………………………………………………

7) Please indicate fish species traded informally in the region

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Country of origin** | **Species** | **Source (Capture/Aquaculture** | **Product** | **Country of destination** |
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8) Why are these fish species preferred in the informal trade?

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| --- | --- | --- |
| **S/N** | **Species** | **Reasons for preference** |
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***People involved in the informal regional fish trade***

9) List the types of activities in the informal regional fish trade

i. ………………………………….

ii. ………………………………….

iii. ………………………………….

iv. ………………………………….

v. ………………………………….

vi. ………………………………….

vii. ………………………………….

viii. ………………………………….

ix. ………………………………….

x. ………………………………….

10) What do women do mostly in informal regional fish trade? ................................................

***Origin of the fish (ask at border post)***

11) Name the fishing water body from which fish species informally crossing the border come from

12) Which fish species crosses the border in large quantities? ...................................................

***The informal fish trade channels***

13) Which trade channels frequently used for each fish species traded informally in the corridor?

|  |  |  |  |
| --- | --- | --- | --- |
| S/N | Fish species | Routes | Means of transport |
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14) Which transportation means among the mentioned above is most efficient and cheap? ................................................................................................................

***Fish products traded and how are they are processed***

15) What fish products are in higher demand (list according to demand level)

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| --- | --- | --- | --- |
| S/N | Fish product | Rank according to demand | Used for/as…. |
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16) What are the processing stages for the fish products that are in high demand?

|  |  |
| --- | --- |
| Fish species | How processed |
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***Number of people involved in informal regional fish trade***

17) Quantify number of people involved in the informal regional fish trade

|  |  |  |
| --- | --- | --- |
| Fish chain | Number of people involved | Gender |
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***Volumes of fish species and fish products going through informal channels at different times***

18) What quantity of fish species do you transport through informal channels per trip?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fish species | Fish product | Quantity | Period | Value (Monetary) |
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***Value of product at different point in the chain***

19.) (i) Which product has the highest value (price)? ..................................................................

(ii) Where does that product originate from ……………………………………………….

***Costs and incomes of operation***

20) What are the estimated costs and incomes of operation for taking fish through the informal channels?

|  |  |  |  |
| --- | --- | --- | --- |
| S/N | Fish species | Mode of transport  ( motorcycle, truck) | Estimated costs |
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***Seasonal and long term trends of value, supply and demand***

21) What is the fish species seasonal trend?

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| --- | --- | --- | --- |
| S/N | Fish species | Favorable season  Value, supply, demand | Unfavorable season  Value, supply, demand |
|  |  |  |  |
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What is the fish product seasonal trend?

|  |  |  |  |
| --- | --- | --- | --- |
| S/N | Fish product | Favorable season  Value, supply, demand | Unfavorable season  Value, supply, demand |
|  |  |  |  |
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***Main markets and location of high consumption***

22) What are the main fish market and location of high demand?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S/N | Fish species | Main market | Location of high demand | Volume | Costs |
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What are the main fish product markets and location of high demand?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S/N | Fish species | Main market | Location of high demand | Volume | Costs |
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***Gender roles and responsibilities at key locations associated with the main activities***

23) Gender roles at key locations

|  |  |  |  |
| --- | --- | --- | --- |
| S/N | Gender | Main activity | Roles and Responsibilities at key location |
|  |  |  |  |
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***Policies and regulations influencing informal fish trade***

24.)

i. Are policy makers aware of the actual situation of the informal fish trade?

ii. Do informal fish trades adhere to this policies and regulations?

iii. Why do traders use informal channels?

iv. Do political dynamics influence informal trade? How?

Appendix 2: Explanation for the questions formulation

|  |  |  |
| --- | --- | --- |
| **S/N** | **Question** | **Reasons for the question** |
| Q1 | Respondent ID | It is important to give each respondent identification. This is necessary especially if the questionnaire has to be revisited during analysis |
| Q2 | Country | Sometimes respondent may originate from a country other than the one which he is located at the time of interview. Thus it is important to know his country |
| Q3 | Region/Province/District/County/ | Countries are sub-divided into smaller units after the national boundary. The study should identify where the respondent comes from in that particular country |
| Q4 | Location of respondent | This question focuses on the location of respondent at the time of interview |
| Q5 | Type of respondent’s activity/ occupation | Within the informal trade there are several players. The respondent should be |
| Q6 | Respondent gender (male/female) and age | It is important to know if women are participating in the informal regional fisheries trade |
| Q7 | Please indicate fish species traded informally in the region | Knowing the fish species traded will help in designing a management regime for the species |
| Q8 | Why are these fish species preferred in the informal trade? |
| Q9 | List the types of activities in the informal regional fish trade | This will inform on the activities that constitute informal regional fish trade |
| Q10 | What do women do mostly in informal regional fish trade? | This will inform on the activities that women actually do |
| Q11 | Name the fishing water body from which fish species informally crossing the border come from | This question is intended to identify the source of the fish so as to help in monitoring the stocks and designing a management regime |
| Q12 | Which fish species crosses the border in large quantities? | Knowing the fish species traded will help in designing a management regime for the species |
| Q13 | Which trade channels is frequently used for each fish species traded informally in the corridor? | Knowing the routes will enable estimation of quantities of fish that crosses the border |
| Q14 | Which transportation means among the mentioned above is most efficient and cheap? | This will help in calculating the profitability level and also fish quality |
| Q15 | What fish products are in higher demand (list according to demand level) | Knowing the products traded will help in designing a management regime for the species |
| Q16 | What are the processing stages for the fish products that are in high demand? | Knowing the state in which is demanded and the quality of processing |
| Q17 | Quantify number of people involved in the informal regional fish trade | Knowing the level of employment that informal regional fish trade provides |
| Q18 | What quantity of fish species do you transport through informal channels per trip? | Knowing the fish species traded will help in designing a management regime for the species |
| Q19 | Which product has the highest value (price)? | This is to assist in the calculation of contribution of informal regional fish trade to economic growth |
| Q20 | What are the estimated costs and incomes of operation for taking fish through the informal channels? |
| Q21 | Seasonal and long term trends of value, supply and demand |
| Q22 | Main markets and location of high consumption | This will help in understanding the markets and the products thus traders can be advised on how to keep the supply. |
| Q23 | Gender roles and responsibilities at key locations associated with the main activities |  |
| Q24 | Are policy makers aware of the actual situation of the informal fish trade? | Identifying the policy barriers and regulations that aid informal regional fish trade. This will help in reviewing the existing policies, laws and regulations where necessary to promote south-south trade. |
| Qi | Do informal fish trades adhere to this policies and regulations? |
| Qii | Why do traders use informal channels? |
| Qiii | Do political dynamics influence informal trade? How? |
| Qiv | Are policy makers aware of the actual situation of the informal fish trade? |

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**Annex**

**Draft report structure**

**Executive summary**

**Introduction**

Background

Objective/hypothesis

Locations etc

**Methodology**

Process, tools analysis method

**Results**

Include in the report a description of the relevant national and regional development objectives as these will be referred to in the discussion/conclusions

Sub headings according to key topics……these can be based on the questions in the methodology matrix…key stakeholders, gender perspective…,

**Discussion**

**Recommendations**

**Itinerary and people met**