

Analysis of the Retailer Value Chain Segment in Five Governorates



Improving Employment and Income through Development of Egypt's Aquaculture Sector IEIDEAS Project

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Executive Summary

This study is the third output of the SDC-funded “Improving Employment and Income through Development of Egyptian Aquaculture” (IEIDEAS), a three-year project being jointly implemented by the WorldFish Center and CARE International in Egypt with support from the Ministry of Agriculture and Land Reclamation. The aim of the study is to gather data on the retailer segment of the aquaculture value chain in Egypt, namely on the employment and market conditions of the women fish retailers in the five target governorates. In addition, this study provides a case study in Minya and Fayoum of the current income levels and standards of living of this target group. Finally, the study aims to identify the major problems and obstacles facing these women retailers and suggest some relevant interventions.

CARE staff conducted the research presented in this report from April to July 2012, with support from WorldFish staff and consultants.

Methodology

The study team collected data from a variety of sources, through a combination of primary and secondary data collection. Some of the sources include:

1. In-depth interviews and focus group discussions with women retailres
2. Government reports
3. Civil Society Organizations
4. Traders, fishermen and wholesalers

After secondary sources were reviewed and the planning and mapping was completed, primary data was collected through a series of interviews based on a structure questionnaire as well as a few informal group discussions with women fish retailers in the five target governorates of Sharqiya, Kafr El-Sheikh, Sharqiya, Fayoum and Minya. Over 270 interviews were conducted.

Findings

The surveys conducted in the five target governorates provided a wealth of information on the economic, social and market conditions for women working in fish retail. This segment of society is considered among the poorest of the poor, as they have fallen into this line of work either because their husband is a fisherman, they do not have land to farm or they are widowed, divorced or have a husband who is unable to hold full time employment. In short, they work in fish retail because the surrounding social and economic environment and their skill set makes it necessary for them to do so.

They work under very poor conditions, with the vast majority not working out of any formal market area or shop. All women were unanimous that they have no work other than the sale of fish, though a large number of them expressed a desire to leave their field of work for something less rigorous.

Most women retailers (65%) buy their fish from the wholesaler in the market while a few of them buy fish from a trader. The number of working days per week ranges from two to seven day, with around 80% of women working 5-7 days per week. Most women use unhygienic and inconvenient containers, such as large metal trays, to store, display and carry the fish to market. These unwieldy containers make

transportation between the wholesaler and the market contribute to the difficult employment conditions these women face. Around 50% of women purchase 25-50 kg of fish daily to sale, and can have anywhere between 1 to 10 kg left over at the end of the day. As most of them do not have an appropriate means of storage (refrigerator, freezer), many women will drop their prices at day's end in order to move the product and be able to pay the wholesaler before purchasing the next batch of fish.

The study team also identified the major obstacles confronting these women fish retailers in the following main areas:

- The availability of fish throughout the year
- Quality of fish, particularly as relates to storage and preservation of fish
- Access to capital and credit
- Market infrastructure
- Problems related to transportation
- Price-setting
- Types and volumes of fish sold
- The enabling environment
- Laws and policies which affect women fish retailers
- The presence of organizations which address retailers' needs and the extent to which such organizations are needed

Based on the research carried out by the study team it was concluded that project interventions will initially focus on issues related to the quality, storage and transport of fish, market infrastructure and the policies and organizations which affect women fish retailers, particularly as relates to market and other fees. While the intention is to implement several interventions as part of a unified development plan, the focus in the immediate period will be on the above-mentioned three areas as the most essential interventions.

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List of Abbreviations

CAPMAS	Central Agency for Public Mobilization and Statistics
CDA	Community Development Association
EEAA	Egyptian Environmental Affairs Agency
GAFRD	General Authority for Fisheries Resources Development
GDP	Gross Domestic Product
IEIDEAS	Improving Employment and Income through Development of Egypt's Aquaculture Sector
LE	Egyptian Pounds (US\$ 1 = LE 6.06)
MALR	Ministry of Agriculture and Land Reclamation
MOSA	Ministry of Social Affairs
MWRI	Ministry of Water Resources and Irrigation
SDC	Swiss Agency for Development and Cooperation
VSLA	Village Savings and Loans Association

1. INTRODUCTION AND BACKGROUND

1.1 Background to the study

This study comes in the context of the Swiss Agency for Development and Cooperation (SDC) funded project, Improving Employment and Income through Development of Egypt's Aquaculture Sector (IEIDEAS)—a joint initiative between the WorldFish Center and CARE Egypt. The study and field activities were led by CARE's Capacity Building Field Supervisors Eshak Mounir (Upper Egypt) and Samy Hussein (Delta). They were assisted by local community members who acted as researchers and enumerators. In Minya, Eshak was assisted by Ms. Magda Moussa, a member of the women's committee of the NGO for the Improvement of Fishermen's Lives in Deir Abu Hennis, Malawi. He was also assisted by Mr. Talaat Kamal, the chair of the board of the same NGO. In Fayoum he was assisted by Fatima Ramadan, a volunteer in two NGOs in Fayoum—the Shakshouk CDA and the Abu Shanab CDA. Meanwhile, in the Delta, Samy Hussein was assisted by Asmaa Mohammed in Sharqiya, Mohammed Wafiq in Kafr El-Sheikh, and Dr. Amin al-Daqla in Beheira. Hossam Metwalli helped him to analyze the data for the three Delta governorates.

This report presents the findings of a community-based field surveys conducted from April to July 2012 in the Upper Egyptian governorates of El-Minya (hereon: Minya) and Fayoum and the Delta governorates of Sharqiya, Kafr El-Sheikh, and Beheira, aimed at identifying the main problems facing the women fish retailers segment of the aquaculture value chain in Egypt. The objectives of the study were as follows:

- 1) Gather information on the retailer segment of the value chain and identify where these retailers are concentrated;
- 2) Monitor the current income level of retailers and identify possibilities for adding jobs in this segment and/or improving current conditions of employment.
- 3) Identify the major problems facing the fish retail saleswomen in terms of:
 - The availability of fish throughout the year
 - Quality of fish, particularly as relates to storage and preservation of fish
 - Access to capital and credit
 - Market infrastructure
 - Problems related to transportation
 - Price-setting
 - Types and volumes of fish sold
 - The enabling environment
 - Laws and policies which affect women fish retailers
 - The presence of organizations which address retailers' needs and the extent to which such organizations are needed

This study complements previous studies conducted in the context of the IEIDEAS project which

analyzed other segments of the value chain—namely the input segment¹ and the production segment in Minya.²

1.2 Background to the project

The IEIDEAS project is a 3-year intervention funded by the Swiss Agency for Development and Cooperation (SDC) and implemented by WorldFish Center in partnership with CARE Egypt's Agriculture and Natural Resources Program and the Egyptian Ministry of Agriculture and Land Reclamation. The project started in December 2011 and its main aims are to secure the future of at least 100,000 people already employed directly in the aquaculture value chain and support sustainable expansion of the sector. The aims of this project are in alignment with the Ministry of Agriculture and Land Reclamation's strategy for increasing national fish production to 2 million tonnes by 2030³, increasing per capita consumption from 13 kg in 2007 to approximately 18 kg by 2030.

The planned project outcomes are:

- Profitability of existing fish farmers improved
- Employment in retailing increased
- Fish production in Upper Egypt increased
- Efficient and sustainable Value Chains established
- (Human) Nutrition improved

The planned activities addressed in this study fall under Outcome 4 – “Employment of women in fish retailing improved/increased” and include:

- The present study;
- Women retailer organizations formed;
- Actions/interventions to support these groups agreed and pursued;
- Analysis of opportunities for employment in fish processing.

1.3 Structure of the report

The following section of the report will set out the methodology employed over the course of the field survey and the resultant study. Section 3 will present some background information on the five target governorates, while Section 4 will present the main findings of the desk research and field survey. Section 5 presents the main conclusions of the study and recommends interventions to pursue with the women fish retailers based on the problems identified and the demands of the retailers.

¹ Nasrallah, A. et al., *Value Chain Analysis of Egyptian Fish Seed Production*, April 2012.

² Gerges, B. et al, *Study of High Potential Production Sites in Minya*, May 2012.

³ Ministry of Agriculture and Land Reclamation, *Agricultural Sustainable Development Strategy 2030*.

2. ACTIVITIES AND METHODOLOGY

2.1 Mapping and Planning

The study began with a series of meetings and communications between CARE's Agriculture and Natural Resources (ANR) management team and Capacity Building Field Supervisors Eshak Mounir and Samy Hussein. ANR Program Director, Samir Sedky, and Initiatives Manager, Susan Nour briefed the study team on the preliminary findings of previous studies conducted within the project and provided them with a preliminary list of contacts and resources identified. A review was conducted of a range of primary and secondary data including:

- **Governmental sources** including the Directorate of Agriculture, the Faculty of Agriculture, and GAFRD in Fayoum and Minya;
- **Civil Society Organizations** such as the Coptic Evangelical Organization for Social Services (CEOSS), the Shakshouk CDA, and other local CDAs in Minya and the Delta;
- **Secondary sources** including government reports on the governorates;

Based on this review a general agenda of activities was set including the following:

- Mapping relevant/potential sites in the five governorates
- Identifying key organizations and contact persons
- Identifying relevant civil society organizations who had carried out projects in the five governorates relating to aquaculture or working with potential stakeholders
- Setting an agenda for field visits and meetings with key stakeholders

2.2 Fieldwork

Once the data review, mapping and planning were completed contacts with relevant governorate counterparts were made in order to introduce the IEIDEAS project and develop a wider network of contacts. Field visits began in the second half of April and focus group discussions and interviews based on a structured questionnaire (attached in Appendix 1) were conducted with civil society organizations, women fish retailers and wholesalers.

Sample Frame

Type of Stakeholder	# of interviews	# present
Women Fish retailers	278	(50 in each of the Delta governorates, 58 in Fayoum and 70 in Minya)
Male traders	2	
NGO staff	7	
Total	287	

2.2.1 Description of the Sample

In the Delta, the samples were chosen after visiting a number of markets mapped out in each governorate. These marketplaces are generally open areas with very little infrastructure. Retailers in general—but fish and other producers in particular—tend to sit on the pavement with a makeshift display to sell their produce. Larger merchants may have a stall or a cart of some sort. In many cases these spaces are rented through the local authority which rents out the area for a few set through an annual tender. Once out of the hands of the local authority, the person leasing the area can determine what to do with the space and what to charge subletters. In Egyptian markets the fee paid to the leaser is known as a “floor fee”—literally, a fee paid to be able to sit on a patch of the market floor. The leaser can set these floor fees arbitrarily.

After visiting these markets, the survey was narrowed down to the markets which had the following characteristics:

- 1 – There are a large number of women working in the retail trade in these markets
- 2 – Saleswomen in these markets sell in several markets in the villages of the district in question.
- 3 – The economic situation of the saleswomen in those markets is weaker than their counterparts in other markets in the governorate.
- 4 - In terms of size, the markets selected were larger than the other markets in the governorate.

In Sharqiya the sample was selected from Zagazig, Abuhamad, Abbassa and Belbeis. In Beheira the sample was randomly selected from the Abu Homos district, Edco, Itay Albaroud and Kafr El-Dawar district, while in Kafr El-Sheikh the sample was selected from Riyadh, Biala, Sidi Salem and Motbus, the fish “stock exchange” which is in a town in the district of Riyadh, and other locations listed in the table below. The table below also shows the distribution of interviews conducted in each area.

Selection was done by making contacts in each area—usually through the local authorities or contacts within relevant ministries such as the Ministry of Social Affairs—who would then link our researchers with local wholesalers, fish traders or members of NGOs working in the area of the market. These local community members would in turn link the research team to women in the market, usually gathering a group of 10-20 to explain to them the purpose of the researchers visit. Those women who showed a willingness to participate in the survey were asked to stay behind after these information sessions were

completed in order to be interviewed by the researchers.

Division of interviews by towns in the Delta

Governorate	Town	Interviewees	Total
Sharqia	Abou Hamad	16	50
	Belbeis	28	
	Abbassa	2	
	Zagazig	4	
Beheira	Edco	1	50
	Itay Albaroud	3	
	Abu Homos	21	
	Kafr El Dawar	25	
Kafr El-Sheikh	Riyadh	2	50
	Fish exchange (in Trombot Sabaa)	21	
	Biala	1	
	Sidi Ghazi	8	
	Sidi Salem	3	
	Sugar factory	15	

Meanwhile in Minya the study was implemented in the villages of El-diabah in the Abu Qurqas district and in the villages of Deir Abu Hanas and Deir al-Barsha in Malawi district. These villages were selected for the following reasons:

- 1 - These villages overlook the River Nile, the largest body of water to produce fish in Minya. They have the largest number of fishermen, where the wives of the fishermen market fish as retailers.
- 2 - There are entities within these communities – namely, fishermen welfare associations—which are willing to adopt the problems of the women fish retailers and participate in the implementation of the activities that contribute to increasing the income of this group. However, as yet there have been no interventions carried out by these associations among this target group.

The selected sample included:

- Women who live in El-diabah, Abu Qurqas district, and work inside or outside the markets of the village (17 women);
- Women who live in the village of Deir Abu Hanas and work mostly within the village selling fish. The sample included 48 women in addition to 5 others from the village of Deir al-Barsha, which is a neighboring village with similar conditions to Deir Abu Hanas. They were included to provide some validation of the results discovered in Deir al-Barsha, and to identify whether or not women in similar environments would have the same problems;
- 2 focus discussion groups that included 15 women from the villages of El-diabah and Deir Abu Hanas. These discussions were about the most important problems experienced by the women fish retailers and the proposed solutions from their point of view.

Finally, the sample selected in Fayoum—a total of 58 women—all came from villages in the district of Ibshaway for the following reasons:

- 1- The largest number of fish farms are located in the district of Ibshaway in Fayoum;
- 2- It overlooks Lake Qarun, the largest body of water producing fish in Fayoum. It has the largest number of fishermen, whose wives tend to work as fish retailers.. The study included the villages of Shakshouk and Abu Shanab;
- 3- Ibshaway town is a center for the marketing and sale of fish from the villages of Ibshaway district (Shakshouk and Abu Shanab – Al-Jilani – Al-Khalidiya) as well as the villages of Yusuf Al-Seddiq (Al-Kahk – Al-Nazlah – Al-Shaouashna).

2.3 Study Limitations

Sourcing accurate and reliable information is a common problem in developing countries. This is very true when attempting to identify data related to aquaculture and accurate data about the number of people working in the aquaculture retail sector. Those working in the retailer sector engage in these activities almost exclusively at the informal level—many of the women we met with do not have official identification and therefore are not registered. During the interviews we witnessed how the different stakeholders are reluctant to varying degrees to share information on their activities.

In addition, the study took place during the months of April and May 2012 when there was a shortage of farmed fish for sale because of the seasonality of production. This led to higher than normal fish prices and relatively low levels of sales by women retailers.



Figure 1: Eshak Mounir and Fatma Ramadan interview women fish retailers in Shakshouk, Fayoum

3. THE FIVE GOVERNORATES



This project seeks to implement interventions on both the producer and retail side in five governorates: Kafr el-Sheikh, Sharqiya, Beheira, Fayoum and Minya—the first three governorates located in the Nile Delta region (Lower Egypt), while the latter two are part of Upper Egypt. Generally speaking, levels of human and economic development and overall standards of living are better in Lower Egypt than in Upper Egypt, and according to the 2010 National Human Development Report⁴ Minia and Fayoum are among the bottom 5 governorates in Egypt in terms of human development. At the same time, governorates in Upper Egypt have, in the past decade, experienced concerted efforts to improve standards and therefore significant strides have been made in terms of human development when compared to the Lower Egyptians governorates. However, it remains that across the board indicators on human development, including education, employment rates (although Minya is an exception here) and status of women are lower in the Upper Egyptian governorates than in the Nile Delta region. For example, in Minya and Fayoum enrollment rates in preparatory education hover around 77 percent, while in Sharqiya and Beheira enrollment rates are around 93 percent, and in Kafr El-Sheikh preparatory school enrollment is 99.5 percent. These numbers all drop off at the secondary level, but the Delta governorates maintain a lead on the Upper Egyptian governorates here as well. Unemployment in Egypt

⁴ Egypt Human Development Report (EHDR) 2010, issued by UNDP.

over all affects women more than men (24% percent vs. 6.8 percent).⁵ Among these five governorates, Minya has the highest proportion of women in the labor force at 31.4 percent, whereas in the remaining four governorates these rates range between 25 percent (Kafr El-Sheikh and Fayoum) and 29 to 30 percent (Sharqiya and Beheira respectively). The overall gender gap in the labor force in these five governorates ranges between 33 to 46. All five governorates are overwhelmingly rural governorates, with the rural population representing more than three-quarters of the population in these governorates across the board.

Below is a summary of the main characteristics of each governorate targeted in this project.

3.1 Minya

Minya is located about 153 miles south of Cairo. The governorate consists of (9) districts, (57) local administrative units each including a number of ‘mother villages’ totaling 346 mother villages surrounded by 1429 affiliate villages and hamlets. Each district has a major town. Minya is the capital



city of the governorate.

Located in the south of Egypt, Minya is an agricultural governorate, making up 5.4% of total Egyptian agricultural production. The agricultural land area covers 472,000 feddans not including the newly reclaimed desert land to the West of the governorate.

⁵ African Economic Outlook 2007: Egypt, issued by AfDB and OECD.

In addition to agriculture, Minya has made recent strides in industry, particularly in food processing, spinning and weaving, and chemicals. An industrial area has been established east of the Nile and has been divided into nine industrial zones.⁶

The estimated total population of Minya is about 4.3 million, with an average population growth rate of 2.2%, making it the most populated governorate in Upper Egypt. Of this total population, approximately, 58.1% of the population works in agriculture.⁷ The total labor force is about 1.2 million with an unemployment rate of approximately 30% according to pre-January 25th statistics. No doubt the events of January 25 2011 have had a negative effect on unemployment rates, as they have nationwide, though no clear statistics are available. The GDP per capita was estimated at LE 8655.98 in 2007/08.

3.2 Fayoum

Fayoum is a governorate in the northern part of what is considered Upper Egypt, with its capital in Fayoum city. It falls approximately 92 km from the governorate of Cairo and is bordered on all sides by desert, with the exception of the southeastern portion of the governorate where it borders Beni Suef. The total area of Fayoum is about 6,068.7 km²



⁶ Report on Menia Governorate, 2007.

⁷ Egypt Human Development Report (EHDR) 2010, issued by UNDP

⁸ Same as 7: EHDR 2010

The estimated population of Fayoum as of the latest census in 2008 was 2,646,661, with 27.5% of inhabitants located in Fayoum city, 20% in Itsa, and 17.2% in Senoures, 12.5% in Tamiya, and Ibshaway with 11.7% of total inhabitants. The majority of the population (77.7%) is rural with the urban population making up on 22.3% of the total population. There are approximately 162 villages and 61 local units in the governorate of Fayoum.

Only 30% of the total area of the governorate is built up, with the remaining area constituting uninhabited desert land. The primary economic activity of Fayoum is agriculture with 434,600 feddans of cultivated land.⁹

The overall unemployment rate is 3.4%, with the highest unemployment rates in Ibshaway (26.9%). The percentage of seasonal and temporary employees is quite low (1.5% and 4.2% respectively), while the overall percentage of part-time employees is 25.3% which increases to 29.3% in Senoras.

Fayoum is also home to two large bodies of water—Lakes Qarun and Rayyan, which together account for about 90 thousand feddans and are an important source of income and economic activity including eco-tourism and fisheries. In addition, fish farms have been developed as a means to exploit the areas of Fayoum which are not suitable for arable farming.

The following shows licensed fish farms in Fayoum Governorate according to statistics from the General Authority for Fisheries Resources Development (GAFRD)¹⁰:

Notes	Production capacity in tons	Number of farms		Area (in feddan)	District	
The overall average of the production of feddan 24 ton/feddan	2121	115		505	Ibshaway	1
	500+5779.2 ton	16		10+1376 condensed	Yusuf Al-Seddiq	2
	1621.2	63		386	Senouras	3
	201.6	10	48	Itsa		4
	331.8	4	79	Tamiya		5

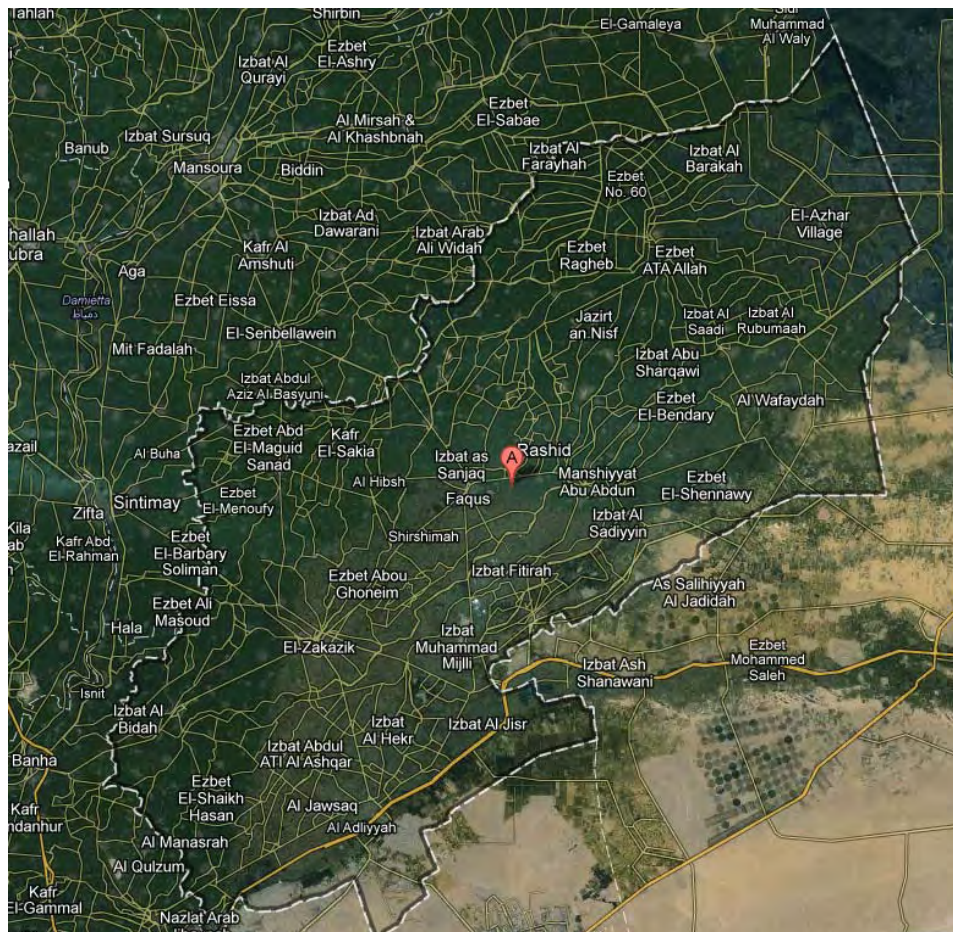
⁹ <http://www.egyptpsu.com/English/Fayoum/Overview>

¹⁰ General Authority for Fish Resources Development, Nile Valley Region, Fayoum, *Statistics on Fish Production in Fayoum: January 2011 to December 2011*.

	92.4	1	22	Fayoum	6
The surplus rate 15%	13608	%15	324		Additional areas (unofficial or unregistered farms assumed to be 15% of total registered area)
	12008	209	2750		Total

3.3. Sharqiya

Located in the northern delta region of Egypt, Sharqiya is considered one of the Suez Canal governorates. It is bordered by Lake Manzala and the governorate of Ismailia in the East, Qalyubiya and Cairo in the south, and Gharbeia in the East. It has a total area of 4911 km² and is the second most populous governorate in Egypt after Cairo, with an estimated population of 13.6 million. The majority of the population (62%) is rural. It is divided into 13 districts and 15 cities and 500 villages.



Sharqiya has one of the highest agricultural production rates in Egypt with 797.2 thousand feddans of agricultural land, comprising 6.5% of total agricultural land in Egypt. The main crops are cotton, maize, potato, sugar cane and wheat. In addition, it is the second highest producer of farmed fish on the national level behind Kafr El-Sheikh.

3.4 Beheira

Located in the Nile Delta area, the Beheira governorate has an area of 9826 km² and is divided into 15 districts and 15 cities with 497 villages, with its capital at Damanhur. It has a population of over 4.7 million.

It is one of the most resource rich governorates in Egypt with the Rosetta Branch of the Nile running through it and providing a steady source of water for agriculture. The weather is mild and the Nile and Lake Edcu and several other tributaries are excellent resources for fisheries development.



All of this combines to make Beheira one of the most fertile governorates in Egypt with 1557 thousand feddans of agricultural land. Beheira is well-known for its varied agricultural production which includes cotton, rice, wheat, maize and potato. It is also the number one governorate in Egypt when it comes to

fruit and vegetable cultivation and production, exporting potato, tomato, artichoke, watermelon, green beans and peppers. Aquaculture?

3.5. Kafr El-Sheikh

The third and final Delta governorate which is part of this project, Kafr El-Sheikh has an area of 3466.7



km² and is comprised of 10 districts and 10 cities with 206 villages. The total population is 2.6 million with most of that population centered in rural areas.

Kafr El-Sheikh is considered an agricultural governorate with 602.1 thousand feddans of agricultural land, and it is known for cultivating rice, sugar beet, cotton and wheat. It is the highest producer of farmed fish in the country, making up 55% of the total national production of fish.

The table below highlights population numbers, unemployment rates and volume of fish production in the five target governorates:

Target Governorates

	Governorates				
	Beheira	El Fayoum	El Mineya	Kafr El Sheikh	Sharkia
Population ('000s)	5,206	2,803	4,300	2,875	5,876

% unemployed ¹¹	6.8	2.9	5.5	10	11.7
Fish production (tonnes) + % national total	29,731 (5%)	6,271 (1%)	negligible (0%)	324,479 (55%)	76,845 (13%)

¹¹ Official 2007 figures as reported in Egypt Human Development Report 2010. It is understood that these figures have increased in 2011 as a result of political upheaval and social instability in Egypt and the wider Arab region, notably in Libya where many Egyptian laborers worked.

4. MAIN FINDINGS

4.1 Survey: Main Findings

The survey conducted with the above-detailed sample addressed a number of issues related to the following.

- The availability of fish throughout the year
- Quality of fish, particularly as relates to storage and preservation of fish
- Access to capital and credit
- Market infrastructure
- Problems related to transportation
- Price-setting
- Types and volumes of fish sold
- The enabling environment
- Laws and policies which affect women fish retailers
- The presence of organizations which address retailers' needs and the extent to which such organizations are needed

All of the women fish retailers selected in the 5 governorates are counted among the poorest of the poor in their governorate. In general there was agreement that they worked in the field of fish retail because they and their husbands do not own land to farm or that this segment of women supports their family because most of them are widowed (e.g., 48% of respondents in the Delta are widowed) or have elderly husbands who are unable to earn or who are casual laborers, making them vulnerable to unemployment.

Also, in one village in Fayoum it was found that of the women surveyed, 48 were married to fishermen and 10 women are either divorced or widowed. This is an indication that, in fact, these women enter this profession on the basis that they have few other sources of income and employment. Work in fish retail is generally an indication of a lack of land to farm. In Shakshouk, Fayoum, for example the majority of the population there works in some aspect of fishing—whether as fishermen, retailers or wholesalers. This is due not only to its proximity to Lake Qarun which makes fishing an ideal profession, but which has also rendered most surrounding land not arable due to increased soil salinity.

Another reason they worked in fish retail is because their husbands are fishermen and they work to either sell their husband's catch during the fishing season and/or to supplement the income supplied by their husbands when they go away to work during the months where there is a fishing ban. In the cases of Fayoum and Minya these women's husband likely travel to Aswan to fish in Lake Nasser. They are away for months at a time and women must work to earn enough to cover day-to-day expenses.

All women were unanimous that they have no work other than the sale of fish, though a large number

of them expressed a desire to leave their field of work for something less rigorous. When asked if they would remain in fish retail if their conditions improved, many if not most were ambiguous as to whether or not they would continue in the field of fish retail mainly due to the fact that they could not envision what conditions would make it a worthwhile field of work. In addition, particularly in the more conservative Upper Egyptian governorates, many women expressed a sense of shame at having to venture outside the home for work.

Most of these women are illiterate, as ascertained when they opted to stamp the surveys conducted with them as opposed to signing them. The average household size is between 4 – 10 persons, and the majority of women surveyed (78%) had families of 6 or more members. Many of these women live in single room mudbrick houses, with no running water or sanitation systems. In the Fayoum village of Shakshouk, where many of the inhabitants live close to the lake, there is an issue of water seeping into their houses from the ground making for very damp and unsanitary living conditions.



Figure 2 : Enumerator Fatima Ramadan filling the questionnaire in the modest one room home of a woman fish retailer in Shakshouk, Fayoum

The tables below show some of the main results from the survey:

Husband's occupation

Occupation	Proportion of interviewees
------------	----------------------------

Fisherman	30.6%
Day labourer	22.7%
Unemployed	19.4%
Deceased	10.8%
Farmer	6.1%
Fish Trader	2.5%
Retailer	1.8%
Divorced	1.1%
Teacher	0.7%
No response	3.96%

Source of fish

Source of fish	Proportion of interviewees
Wholesaler	65.5%
Relative/husband fisherman	25.2%
Fish farm	4.7%
Husband is fisherman or wholesaler	4.7%

Number of days worked

Number of days working as fish retailer per week	Proportion of interviewees
Seven	37.77%
Six	26.62%
Five	25.90%
Four	6.83%
Two	0.72%
One	0.36%
No response	0.2%

Types of fish sold

Species	Proportion of interviewees
Tilapia	35.6%
Tilapia & African catfish	27.4%
Tilapia & mullet	17.8%
Tilapia, mullet, Bagrus catfish & African catfish	15.9%
All types	0.96%
Bagrus catfish & mullet	0.96%
Tilapia, Bagrus catfish & African catfish	0.48%
Bagrus catfish & African catfish	0.48%
African catfish	0.48%

Fish storage¹²

Number of days fish is stored	Proportion of interviewees
Sell same day	11.5%
Stored for one day	38.5%
Stored for two days	35.6%
Stored for three days	14.4%

Overnight fish storage methods

Method	Proportion of interviewees
Fridge	38.3%
On ice	15.9%
No storage (fish sold same day)	45.8%

Amount of fish left over each day

Quantity of fish not sold at the end of each day	Proportion of interviewees
None	36.7%
1-3 kg	20.5%
4-5 kg	1.1%
5-10 kg	25.2%
10+ kg	18.4%

Fish display methods

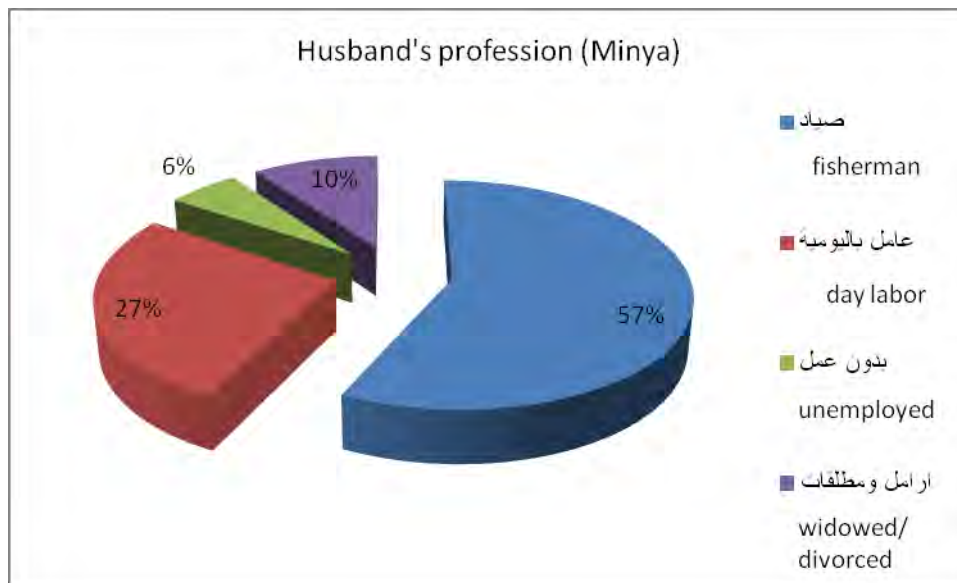
Method used for fish display and storage	Proportion of interviewees
Wooden boxes	1.44%
Plastic crates	1.44%
Metal trays, plastic bags and wooden tables	36.33%
Metal trays and plastic bags	5.40%
Metal trays and plastic crates	5.40%
Metal trays	47.12%
Plastic crates	0.36%
Other methods	2.16%

Amount of fish sold on a daily basis

¹² Respondents in Minya did not answer this question.

Quantity of fish sold each day	Proportion of interviewees
Less than 10 kg	8.63%
10-14 kg	15.83%
15-19 kg	25.90%
20-50 kg	48.20%
50+ kg	1.44%

As demonstrated in the table above, most women retailers buy their fish from the wholesaler in the market. The number of working days per week ranges from two days to seven days as a maximum. In the case of Minia, some women, wives of fishermen, market fish that their husbands catch from the Nile, though not exclusively. However, due to the significant reduction in the production of fish from the Nile because some fishermen practice overfishing, the economic returns from the profession have become very weak.



Therefore, a number of fishermen turned to work as day-laborers in quarries near the town. The fishermen's wives in that case have turned to buying fish from wholesalers in Abu Qurqas, who sell fish brought from Lake Nasser in Aswan. Women prefer to buy this type of fish due to its low cost making it easier to sell to the consumer. They generally operate as mobile peddlers, traveling to the villages surrounding Abu Qurqas and villages of the Minya district. This type of fish is popular in the villages due to its low price, despite of its low quality. Women also buy silver fish and catfish if available through traders. The village of El-Diabah includes about 50 to 60 fish retail saleswomen who go in the morning to the wholesaler to buy one or two containers of fish per woman (one container weighs 25 kilograms). They buy fish on credit—to be repaid the next morning—and then sell to surrounding villages, returning to their village at the end of the day. They pay for purchases the next day and get new fish and so on. This same method of operation applies across the remaining four governorates. The trader from whom they buy fish does not buy it directly from Aswan, but from a Malawi district- based wholesaler, who distributes to fish traders in the various districts of Minya.

When asked about how they pay their supplier, the majority of respondents (93%) said they purchase fish on credit to be repaid the next day or at the very latest within two days. In some cases they may borrow from other women retailers to cover expenses and be able to repay the supplier. In other cases women noted that wholesaler would not allow them to buy more fish until she had covered the cost of the fish she had already taken. When asked about who sets the sale price for fish nearly all of the retailers surveyed responded that the wholesaler sets the price. In only one case did the retailer set the price and in under five cases the price was set by the farm from which the fish was sourced. In terms of where women sell their fish, most women in the five governorates sell on the street or sidewalk in the local informal market area. Fewer than 10 respondents said that they sell out of a formalized shop or stall. Minya is unique among the five governorates in that approximately 25% of women retailers surveyed peddle their fish from door-to-door.

Almost all the women noted that they are not currently affiliated with an association or organization which specifically addresses their needs, however, they would like to belong to such an entity.

4.2 Main Characteristics of Fish Retail: Case Study of Minya and Fayoum

MINYA

El-Diabah, Abu Qurqas district:

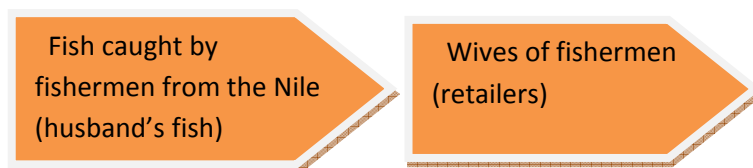
El-Diabah, Abu Qurqas district is located in the east of the Nile River in the governorate of Minya. To the east of the village lies a mountain, to the south lies the village of Bani Hassan Alshorouq and to the north lies Abu Janah estate.

The enumerators were able to record 47 women working in fish retail in the village, who are mostly wives of fishermen or quarry workers. The village is one of the largest villages with women working in fish retail, and their business covers not only the surrounding villages in the district, but extends to villages in the Minya district as well.

Sources of fish

The retail chain takes two forms in Minya as follows:

First: Women sell fish caught from the River Nile, usually by their husbands



Second: Women buy fish from wholesalers and sell them in the surrounding villages and most of the women in the village buy frozen fish, brought from Aswan Lake, from wholesalers



Prices of fish and economic returns

The price of frozen tilapia from Aswan Lake ranges from 7-8 LE per kilo. The price of the catfish ranges from 8-9 LE per kilo. The price of silver fish ranges from 5-6 LE per kilo. Each woman determines the selling price in light of market conditions, quality of fish and the timing of sales—whether at the start or at the end of the day, when fish is sold at lower prices due to exposure to heat and other factors over the course of the day. In all cases, the average profit margin was found to be between 1-2 LE per kilogram as demonstrated in the table below:

Costs and returns from fish sales by women retailers in Minya

Type of fish	Purchase price (LE/kg)	Sale price (LE/kg)
Aswan tilapia	7-8	8-10
Catfish	8-9	9-10
Silver carp	5-6	7-8

On a typical day these women sell 25 kilograms (one container) of any type of fish available at the traders. If the fish is sold before the end of the day they buy another 25 kg container. In a typical case, the gross profit for women who sell 25 kg is between 25 to 40 LE depending on the quality and type of fish purchased and the time of day when the sale occurs (later in the day the retailer will lower the price in order to move her product). Approximately 10 LE daily is deducted for various expenses, which can include transportation, market rental fees, and in some cases scale rental fees. In el-Diabeh village, to get to market, women must take a microbus to the river, cross on a ferry and then catch another microbus to their destination on the other side of the Nile. This can result in a roundtrip cost of between 3-6 LE depending on their destination (1.5 LE for microbus to and from village to river; 0.5 LE for river ferry, and anywhere from 1 to 4 LE for destinations beyond). Scale rental costs between 1 LE to 2 LE depending on the owner of the scales, and floor fees (if paid) in Minya are between 2-5 LE. However, most retailers in Minya avoid these floor fees by either remaining mobile or selling in front of their homes (in the case of Deir al-Barsha). In the case of Minya as well, few women purchase ice for their fish. In fact, during a validation workshop in el-Diabeh with a group of 28 women, they were all in agreement that they prefer not to have ice on their fish, as it puts consumers off. Consumers assume

that the fish is on ice because it is not fresh and will not buy. One woman even said that if the fish comes with ice on it she will remove it in order to increase her chances of sale. Therefore, taking into account the above expenses the net profit comes to 15-30 LE. This is in the case that all fish is sold by the end of the day. However, in many cases, there is a loss of about 1-2 kg per container either because that fish is not sold, or because the wholesaler sells each container as a 25 kg standard without weighing it. In many cases, the weight of the fish in the container is 1 or 2 kilos short of the standard 25 kg. Therefore, full profits are not realized.

Places for selling fish

Women sell in the villages in the district of Abu Qurqas and the villages of Minia. The main villages where these women operate are Bani Ahmed, Alzawya, Almitahirh, Nazalt Obeid, Farajallah, Bani Obeid, al-Nahal , al-Barba, Sheikh Mubarak, al-Shoarfa , and Abu Qurqas. If they have been able to obtain high quality fish—either through a good catch that day or because it is a high season for fish (holidays)— they sell in the main market of the town. However, the fish brought from Aswan is frozen and retailers are keen to sell it as quickly as possible before it thaws completely and they want to sell the largest quantity possible before it spoils. For these reasons, they peddle their fish on foot through villages where demand is high due to its lower price, which is approximately 4 LE/KG cheaper than farmed fish alternatives.

The villages of Deir Abu Hans and Deir al-Barsha in Mallawi district:

The villages of Deir Abu Hans and Deir al-Barsha in the Mallawi district are located east of the River Nile in the governorate of Minya. To the west lies the River Nile, to the east lies the mountains, to the south lies the village of Al Barsha, and to the north lies Sheikh Ebada.

Sources of fish

Fish are bought on credit from fishermen who fish the canals or Nile enclaves (*akhwar*) branching off from the Nile, and pay at the end of the day or the next morning at the latest. Some fishermen refuse to sell on credit and the owner of the enclave forces the women to buy all the fish caught regardless of the type and size. There are very few enclave owners/leasers in the areas near where these women retailers are located in Minya, and in most cases they have a monopoly on fishing and the fish produced in this enclave. Fish are provided by the husband if he is a fisherman. The most important fish sold are Nile tilapia, catfish and bayad.

Places for selling fish

In the village of Deir Abu Hanas, women sell fish whether in front of their houses or in the streets. They do not go to the surrounding areas, as the village is large enough to accommodate the production. Some traders even come from the neighboring villages and sell their fish in the village. It is the same case for the village of Deir al-Barsha, where sale is within the village, though a limited number do sell fish outside the village in the villages of Nazlet Al Barsha and Deir Abu Hanas. In particular, women who buy farmed

fish sell it within the village of Deir Abu Hanas and Deir al Barsha. When there is no Nile fish to be had, some of the women will buy farmed fish from traders in order to generate some income during this period. Women in the village of el-Diابه however expressed that farmed fish is generally too expensive to be profitable for them to sell. El-Diابه is located east of the Nile and at a distance from most of the fish farms in Minya. The type of fish which is farmed would require either oxygen to transport live or need to be delivered to the retailer as soon as possible after harvesting. In addition, any fish which would come to their village would have to be transported across the river adding to the operation costs. These factors make selling farmed fish in el-Diابه unattractive at the moment. Generally, these women do not have the area or the capital to begin considering producing fish themselves.



Figure 3 : Woman retailer selling fish outside her home in Mallawi

FAYOUM

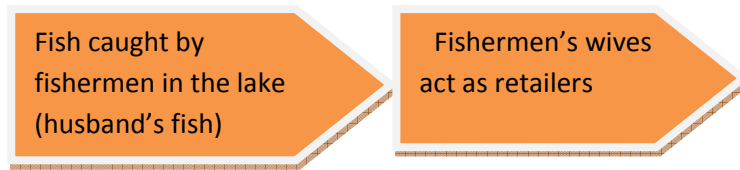
Shakshouk

Sources to buy fish

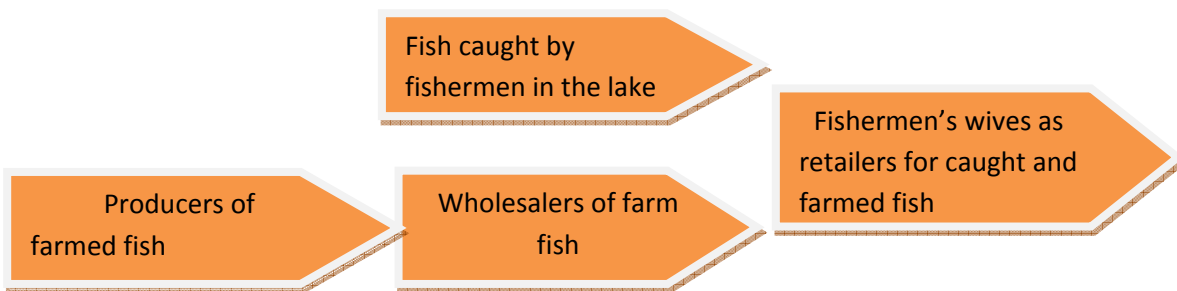
Wives of fishermen market the fish caught from Lake Qarun. In the village of Shakshouk and surrounding area there are 268 licensed boats that operate on Lake Qarun. Each vessel has between 4-6 fishermen. That means that the average number of fishermen is around 1340. There are no statistics on the number of retailers, but estimates given by the women retailers, wholesalers and local NGO staff—shows that there are at least 500 women who sell fish in the village of Shakshouk or the town of Ibshaway and the neighboring villages in Sanuras district, namely the villages of Sanhour and Fidman. Women are divided into several categories:

Women who sell fish caught by their husband from the lake only and stop selling during the season

when fishing is banned



Women who sell fish caught by their husbands from the lake, along with buying farmed fish from wholesalers, during the fishing ban season



Women who buy and sell fish from wholesalers or directly from farms. Most women in the village buy farmed fish from wholesalers who bring fish to the village from the surrounding farms in Shakshouk.



There are a total of 7 wholesalers who operate in the village of Shakshouk. Each one distributes between 0.5-1 ton of fish per day, so approximately 5 to 6 tons of fish are sold per day. This quantity is sold in several markets surrounding the village, the most important of which are:

- 1 – Ibshaway market
- 2 – Sanhour market in the district of Sanuras
- 3 - Fidman market in the district of Sanuras
- 4 - Shakshok market

These markets do not differ greatly in the type of consumer or the quality and quantity of fish demanded. Most consumers in these markets prefer medium-sized tilapia (approximately 4 fish to a kilogram).

Places for selling fish

An actual count of 400 women retailers has been done with the local enumerator gathering the names and details of these women over the course of several weeks. Of these women:

- 17 sell more or less exclusively in the local Shakshouk market
- 123 sell in Sanhour
- 94 sell in Ibshaway

Abu Shanab

Sources for buying fish


There are a number of women who market the fish caught by their husbands from Lake Qarun. In the village, there are 60 licensed boats that sail on Lake Qarun and on board each vessel there are 4-6 workers, so the average number of fishermen is about 300 fishermen. There are no statistics on the number of retailers, but the preliminary data shows that there are more than 200 women who market the fish in the village of Abu Shanab or in the town of Ibshaway and nearby villages such as the villages of Al-Khalidiya, Sorour , Allokanda and Alzarabi.

Women buy fish from the wholesalers or from the farms and sell them. Most women in the village buy fish from the farms around the village of Abu Shanab because they are nearby. This proves to be more cost effective from them as they can purchase fish at the wholesaler price. Retailers from the village of Shakshouk have a harder time purchasing direct from the farm due to the distance and transportation difficulties, so they buy via a wholesaler. In addition, sales direct from the farm begin at dawn which is another obstacle to retailers who are based at a distance from the farms. Women sell fish caught by their husbands from the lake, along with buying and selling farmed fish. They often resort to the second option because their husbands travel outside the village when Lake Qarun is closed to work in the High Dam Lake in Aswan and are away from the village for long periods of time. While their husbands send back remittances periodically, women must work to earn money for day-to-day expenses.

Places for selling fish

In the mornings, some women sell very small fish from Lake Qarun fishermen at about 2 LE per kilo as food for ducks. In the afternoon, they sell medium and small fish, whether in the village market or in the markets around the town of Ibshaway and the villages of Aboxa , Sanro, Talat and Sorour.

4.3 Problem analysis



Lowest profit margin at this stage	Retailers must trust word / prices of wholesaler if they have no other link to source of production (wholesaler controls the price) Also issue of lack of weighing standards and shorting the retailers	Retailers in many cases do not have direct link to farms	Transportation (convenience, cost)
Contamination of fish highest at this stage due to poor transport, storage, cooling means, tools	Contamination of fish starts at this stage	Lack of variety in fish sizes to suit various market segments	Lack of formal market area/ have to pay "rent"
Lack of knowledge about purchase and marketing options, pricing (of what?) – increased vulnerability to exploitation	Exploitation of retailers at this stage	Three months of the year where there is no production	Poor or no means of storage/cooling

The table above is an overview of the main problems facing the women fish retailers across the five governorates as analyzed across the various segments of the value chain.

Below is a detailed summary of the problems as found in the five governorates based on the surveys:

1. Problems related to the current laws:

Markets in Egypt and especially in Upper Egypt, in Fayoum and Minia, lack the simplest evidence of planning, and often lack any official control or presence. The respondents were unanimous that the state, represented by the staff of the City Council, is collecting daily fees from the saleswomen in the market, which are called "floor fees", even though they sit on the street and there are no particular places allocated for them in the markets.

2 - Problems related to availability of fish and its impact on prices:

Women were unanimous that they are facing the problem of the lack of fish throughout the year and especially those who rely on their trade on the Nile fish, where production drops sharply over the period from April to August, leading to higher prices of fish and low demand by consumers. This in turn negatively affects their income, standard of living, health and social status. In the Delta, those who have financial ability to do so, go to Al Obour market (near Cairo). However, this increases their costs due to

transportation costs. Others deal with traders, who raise the price of fish. All the respondents sell tilapia as an essential product, along with some other items. Some of them sell tilapia and catfish, others sell tilapia with mullet and some of them sell the three types together. Some of them sort the fish after buying it from the merchant, and others buy sorted fish.



Figure 4: Women selling live catfish and tilapia in Abu Hammad market in Sharkia

3. Problems related to the markets and points of sale:

There are but very few specialized fish markets. Fish is generally sold either within the vicinity of the town or village market; or through mobile peddling in the streets. The markets where fish is sold are generally very poor in infrastructure, and even worse in terms of hygiene. Fish retailers may be put into two main categories:

- a- Retailers with shops (very rare among the target group addressed in this report)
 - a. Selling fish only
 - b. Selling fish with added value; i.e. cleaning and frying / grilling.
- b- Street peddling: mostly women retailers and may be categorized into two types
 - a. Sit-in peddling within markets; especially in towns and villages
 - b. Mobile peddling who roam the streets and may knock on doors for clients (seen in Minya)

For this second category of retailer, there are no specific places allocated for them in the market. They sit on the street and sell out of whatever container they have available. In many cases, the local facilities police chase them and collect road occupancy fines and sometimes confiscate their fish, which of course has a negative financial affect on them. In the winter, they are exposed to rainfall and sit in the muddy streets and in the summer, they are exposed to the heat of the sun, which affects their health. They are also subject to mistreatment at the hands of shop or homeowners whose properties they may sometimes sit in front of. On some occasions shop owners have thrown dirty water on them in order to get them to leave the area. In Minya, some cases were reported where shop or homeowners through the entire container of fish on the street in order to get these women to move

4- Problems related to trade and transport of fish

The majority of respondents agreed that they are suffering, especially in the summer, from the lack of ice ,which is both costly and not always readily available, for keeping the fish fresh. The necessity of purchasing ice of course increases their costs and consequently reduces their profits. The lack of ice, however, increases the likelihood of fish spoiling, thus leading to even greater losses. Retailers also noted the lack of availability of refrigerated vehicles to transport fish from the farms to the wholesale or retail fish markets. The biggest problem facing women is the lack of appropriate vehicles to transport them to the retail markets in towns and the surrounding villages. Some passenger vehicle drivers refuse to transport them because the other passengers do not like to travel with fish. In addition, the steel containers that women use in most cases to transport fish make it very awkward and inconvenient to transport fish using normal transport means (a mini bus or similar). In Fayoum, one woman described balancing her steel tray with fish on top of her head while hanging off of the back of a flatbed truck in order to get to market.

5. Problems related to organizations and institutions:

The respondents generally agreed that there is no dedicated governmental or non-governmental agency which addresses their particular needs and helps them to confront their work-related issues, or occupational-related health and social issues.

6 - Problems related to funding:

There is no agency to lend or fund these women, and they face high prices and costs through most of the year. That forces most of them to buy on credit from the wholesalers who impose conditions, either in terms of price or the types of fish supplied to them.

7 - Problems related to the services provided to consumers:

Very few women in the five governorates provide value-added services to consumers, such as cleaning or otherwise processing the fish. This is due to the fact that in poorer markets, consumers prefer to save the money they would pay for such services and just clean the fish themselves at home. Such value-added services might have more demand in markets in cities or larger towns.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The findings clearly demonstrate that women working in fish retail are largely marginalized lacking any support from any government or non-government entity; working in strenuous conditions/environments that renders it a profession which most only work in out of necessity; lacking proper tools, services and utilities in their markets; and earning meager profits at the end of long working days. The following are a few recommendations which would contribute to the formalization of this profession. This would make fish retailing a more attractive area of work, thus either increasing the number employed in it or improving the conditions for and incomes of those already employed in the sector.

1. It is necessary to establish an entity, whether a formal civil society organization or an informal grouping of retailers, which adopts their cause and assists them in obtaining their rights and providing some of the services they need.

2. It is necessary to work with local units and other potential stakeholders to:

a- Establish proper places for fish marketing and;

b- Allocate enough space for marginalized women fish retailers and legalize the floors fees that are imposed on women.

3. It is necessary to streamline the process by which fish is bought and sold by establishing a direct relationship between the owners of fish farms and the retailers. As shown in the survey, the wholesaler as middleman is almost exclusively responsible for setting the price. Thus, exploitation of women fish retailers is most likely to occur at this stage. Therefore it is important for NGOs or retailer organizations to play a role in negotiating and contracting with relevant segments of the value chain (be it the fish farm owner or the wholesaler) to provide fish to the retailers at lower and more fair prices than the current price of the wholesaler.

Some NGOs have shown a desire to play such a role in case places for storage and transportation are available. The NGOs have expressed their willingness to create a compound for the sale and distribution of fish and that can be done in coordination with the project as a grant for the NGOs working in this area

4. It is necessary to provide means for storage in order to reduce the amount of fish exposed to damage or that are sold at low prices. This can be done by providing Ice-Boxes to store the fish during the sale in the markets or what remains at the end of the day. It is also important to provide ice at low prices, either through the association or as a project implemented by an individual in the village, or Deep Freezers to the associations to store the remaining fish.

5. It is necessary to link women retailers associations to the development of small projects associations to provide credit for women to buy fish in cash, apply the idea of the village saving and loans association (VSLA) to provide capital for the cash purchase, or that the association buys fish on credit from the farms and pay them on the second day of purchase after collecting money from the saleswomen
6. It is necessary to train women on the skills of salesmanship, marketing, product presentation and added services (cleaning - packaging - .. grilling -home delivery)
7. It is necessary to coordinate and link farms, for which technical support is provided by the World Fish Center, to the retailers benefiting from the same implemented project

What about marginalized men fish retailers? How will you also work with them, to ensure you do not create conflict? This is a good question and one we did not adequately cover during the survey, but one which we are starting to think about and consider. In Sharqiya one of the NGOs who would like to work on this project has asked that we make allowances for 10% of the retailers assisted in this project be male. How we will assist them remains to be seen.

5.2 Suggested interventions

Based on the results of a validation workshop held in Fayoum on 24 July 2012 with a group of 25 women from Shakshouk who sell in three different markets (Ibshaway, Sanhour and Shakshouk) the following three issues are priority areas for them:

- 1) **Storage and maintenance of fish:** The overwhelming majority of women felt that this was a key issue in terms of transport and marketing and a major obstacle to profitability as they are forced to sell at lower prices later in the day. The following are some of the suggested interventions:
 - The women were keen to explore the idea of purchasing ice boxes as a solution to this issue. They feel that iceboxes would solve a number of issues namely make it easier for them to transport their fish instead of in open stainless steel or plastic boxes. They also felt that with the addition of ice in a closed and insulated icebox fish would stay fresh for longer.
 - Women also seemed keen to develop a local ice making unit where they could purchase their ice instead of being forced to purchase at higher prices in the local market.
 - The women in Shakshouk were less keen about the idea of purchasing a central deep freezer or refrigeration unit where they could store unsold fish overnight. However, women surveyed in Minya were very receptive to the idea of having a refrigeration unit either at the local CDA or located at a local supermarket.
- 2) **Marketplaces:** The second priority area of focus for these women was the marketplace and the market conditions. Although some expressed the fact that they were “used to” selling under less than ideal conditions (no shade from the sun, no specifically allocated area, facing abuse from the local authority or local shop owners who sometimes dump dirty water on them in order to

get them to move), women felt that the second most important area to address was improving the market conditions. The following are some of the suggested interventions:

- Allocating an area in the market specifically for fish retail and setting up a covered market area there.
- 3) **Stall rental and fees:** Closely related to this second priority is the issue of fees paid to “rent” areas to sit and sell fish. The following are some of the suggested interventions:
- Lobbying with the local authority to pay a lower rental price since they would be paying as a group; or ensuring that they pay the actual rental price as opposed to some arbitrarily set price.

Some other interventions which were discussed are as follows:

- A car or a tricycle carrying live fish which goes around villages in order to ease the transportation issue and also so that women are able to sell fish at a higher price as it is live. This can be done through the farms and by linking with the relevant markets.
- A few women can work in cage farming if feasible, or have small home-based tanks.
- The local NGO can operate as the “middle man” in place of the trader or wholesaler. In this way the NGO would buy fish directly from farms at wholesale prices and sell it to women affiliated with the NGO at a fair price. Payments can be made after sale and any fish that is not sold can be cold stored at CDA premises and sold for the same price the next day. This would solve several issues related to storage of fish, price and transport of fish to retailers and markets, and would also help to secure a source of fish during the low seasons.
- At the district level a small shop could be opened in the main market area where women retailers sell and clean fish. This would be a service geared towards working women for whom this service would be a real value added.
- A freezer could be sold to the CDA or at another centrally located area and ice could be produced by filling plastic bags with water to be /sold to fish retailers in place of the expensive ice bought in markets.
- We could look into interest on the part of one or two women in each community who might be interested raising ornamental fish for sale in the cities.
- We should also look into the idea of linking women who are already involved in shrimp peeling directly with factories or large food retailers in order to contract with them directly and get a fair price for this service.
- Generally, we also need to look into opportunities for processing whether it be fileting of fish for sale in hypermarkets or to hotels and restaurants, or for the use of fish byproducts in making other products in demand (e.g., bones into duck feed).

Annexes

Annex 1. Survey questionnaire

Annex 2 Names of women fish retailers recorded in Fayoum and Minya

Annex 1

Name: _____ Village: _____ Date: _____

1. **Type of work** ___ fish retailer ___ shrimp peeler ___ other
2. **Source of fish** ___ fisherman (spouse) ___ fish trader ___ fish farmer
3. **Property** ___ poultry ___ goats ___ large livestock
4. **Dependents**
 - a. **No. of Children** _____

5. **Husband's occupation**
6. **Number of days of work per week**
7. **Do you have to sort your fish for market?**
8. **types of fish**
9. **For how long do you store fish?**
10. **How do you store fish if you do keep it?**
11. **How much fish might you have left over on avg. on a daily basis?**
12. **What do you use to store and sell your fish?**
13. **Avg. daily sales in KG?**
14. **Do you provide services to consumers?**
15. **Means of paying supplier**
16. **Who determines the selling price?**
17. **Location of selling fish?**
18. **Problem Areas**

Problems	Yes	No	Priority of importance
a. Difficulty in finding a place to sell and problems with the local authority			

b. Low returns and increase in price of fish from traders			
c. Trader demands advance before providing fish			
d. Difficulty in transporting fish container and cost			
e. Keeping fish fresh for market			
f. Not selling all fish the same day and having to sell remaining fish at lower price			
g. Other-			
h. Other-			
i. Other-			
j. Other-			

(Please number the top three most pressing problems in order of importance)

19. Description of the residence

Annex 2

List of interviewees

م	الاسم	مكان البيع	م	الاسم	مكان البيع
1	سعيدة غبريال يسي	دير ابو حنس	26	هويدا سعد	دير ابو حنس
2	عواطف لبيب عزيز	دير ابو حنس	27	كرستين وجدى لبيب	دير ابو حنس
3	فايزة تسيم كراس	دير ابو حنس	28	راحيل عادل بشارة	دير ابو حنس
4	فداوية سيد طوني	دير ابو حنس	29	ثريا شكر دقش	دير ابو حنس
5	سامية عيد بشير	دير ابو حنس	30	عدلية بشارة ابراهيم	دير ابو حنس
6	هدى سعد سعيد	دير ابو حنس	31	وردة بشارة عيد	دير ابو حنس
7	حنان ليان نصيف	دير ابو حنس	32	نادية عزيز فايز	دير ابو حنس
8	سارة زكري عبد السيد	دير ابو حنس	33	فيفى جرجس راغب	دير ابو حنس
9	سحر محسن دانيال	دير ابو حنس	34	سونيا لبيب عزيز	دير ابو حنس
10	سماح كمال مقار	دير ابو حنس	35	وجيهة طوني لمعى	دير ابو حنس
11	نبيلة راشد صليب	دير ابو حنس	36	ماريان مبروك شوقى	دير ابو حنس
12	قمرات جمال شحاتة	دير ابو حنس	37	روضا بربر عبد النور	دير ابو حنس
13	اميرة عفيفى سعيد	دير ابو حنس	38	مرثا اليون صادق	دير ابو حنس
14	سامية سمير سيدهم	دير ابو حنس	39	منال مندى لبيب	دير ابو حنس
15	فايزة عيد ملك	دير ابو حنس	40	سهام كسبان دانيال	دير ابو حنس
16	بركة خليل ميخائيل	دير ابو حنس	41	ماجدة عيد موسى	دير ابو حنس

17	صباح سعد سعيد	دير ابو حنس	42	هويدا ليون صادق	دير ابو حنس
18	زيناهم جمعة طونى	دير ابو حنس	43	جمال فهمة حرز	دير ابو حنس
19	مارى خيرى ابراهيم	دير ابو حنس	44	خيرة كميل مقار	دير ابو حنس
20	صبات فتحى حرز	دير ابو حنس	45	خيرة فتحى حرز	دير ابو حنس
21	رحمة كمال مقار	دير ابو حنس	46	جميلة ثابت جاد	دير ابو حنس
22	رضا حلیم طانيوس	دير ابو حنس	47	نعنائة حربى جودة	دير ابو حنس
23	كرستين عصام مكرم	دير ابو حنس	48	سحر محسن دانيال	دير ابو حنس
24	قمرات كامل عزيز	دير ابو حنس	49	نورة عطا جرجس	دير ابو حنس
25	سميحة حبيب خلة	دير ابو حنس	50	نورة نوح مرزوق	دير ابو حنس
			51	عايدة دانيال سعيد	دير ابو حنس

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2	حميدة خلف محمد	ابو قرقااص وقراها	28	سعدية عبدالحكيم عبد المعين	ابو قرقااص وقراها
3	هناء عبد الفتاح عبدة	ابو قرقااص وقراها	29	ندية على عبد ربة	ابو قرقااص وقراها
4	ليلى مكرم عبد الجليل	ابو قرقااص وقراها	30	ندية عبد الفتاح سيف	ابو قرقااص وقراها
5	ناجحة مختار محمد	ابو قرقااص وقراها	31	محاسن نجيب صالح	ابو قرقااص وقراها
6	زيناهم مختار محمد	ابو قرقااص وقراها	32	محاسن خلف محمد	ابو قرقااص وقراها
7	هانم عبد الحكيم خليل	ابو قرقااص وقراها	33	امل محمود احمد	ابو قرقااص وقراها

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ابو قرقاص وقراها	زيناهم محمود خليفة	37	ابو قرقاص وقراها	جيهان عبد الله عبد المعين	11
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2	سعبدة قادر	دير البرشا
3	فايزة محفوظ	دير البرشا
4	زكية ميخائيل	دير البرشا
5	مريم عبدالله	دير البرشا
6	مرفت هلال	دير البرشا
7	مارينا عبدالله	دير البرشا
8	مريم عبدالله	دير البرشا
9	هناء يوسف ميخائيل	دير البرشا
10	مجدة حكيم	دير البرشا
11	ايمان عبد السيد	دير البرشا
12	هدى عبد السيد	دير البرشا

دير البرشا	امال نادى	13
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م	الاسم	العنوان	مكان البيع	م	الاسم	العنوان	مكان البيع
1	وسيمه فتحى محمود	ابوشنب	ابشوای وقراها	26	صباح عبدالسلام حسين	ابوشنب	ابشوای وقراها
2	دوابه عباس شعيب	ابوشنب	ابشوای وقراها	27	مها حسين	ابوشنب	ابشوای وقراها
3	رئيسه عبد التواب	ابوشنب	ابشوای وقراها	28	صابرين عبدالنبي رمضان	ابوشنب	ابشوای وقراها
4	رضا رشاد احمد على	ابوشنب	ابشوای وقراها	29	شيماء نجيب محمد	ابوشنب	ابشوای وقراها
5	سيده عبد الله محمد	ابوشنب	ابشوای وقراها	30	منى احمد فرج الله	ابوشنب	ابشوای وقراها
6	منى توفيق عبد الحفيظ	ابوشنب	ابشوای وقراها	31	امانى جمعه محمد	ابوشنب	ابشوای وقراها
7	صفاء فاكيه عبد المنعم	ابوشنب	ابشوای وقراها	32	ريا رمضان محمد	ابوشنب	ابشوای وقراها
8	فاطمه عبد الحميد محمد	ابوشنب	ابشوای وقراها	33	فتحيه عبدالجيد جوده	ابوشنب	ابشوای وقراها
9	دوابه عاشور عبد الستار	ابوشنب	ابشوای وقراها	34	عزيزه سيد عبد العزيز	ابوشنب	ابشوای وقراها
10	عزه صلاح مصطفى	ابوشنب	ابشوای وقراها	35	ام هاشم عبدالتواب	ابوشنب	ابشوای وقراها
11	أفراج محمد فرج	ابوشنب	ابشوای وقراها	36	جماليات محمد سليمان	ابوشنب	ابشوای وقراها
12	ميمنه ابراهيم معوض	ابوشنب	ابشوای وقراها	37	تهانى رمضان محمد	ابوشنب	ابشوای وقراها
13	عز محمد على	ابوشنب	ابشوای وقراها	38	عزيزه على مكاوى	ابوشنب	ابشوای وقراها

14	ابوشنب	ابوشنب	ابشواى وقراها	39	نجاح عبد الحليم صادق	ابوشنب	ابشواى وقراها
15	ابوشنب	ابوشنب	ابشواى وقراها	40	ندى على قطب	ابوشنب	ابشواى وقراها
16	ابوشنب	ابوشنب	ابشواى وقراها	41	خيرى على عبد الجيد	ابوشنب	ابشواى وقراها
17	ابوشنب	ابوشنب	ابشواى وقراها	42	صباح رمضان على	ابوشنب	ابشواى وقراها
18	ابوشنب	ابوشنب	ابشواى وقراها	43	فايزه رمضان على	ابوشنب	ابشواى وقراها
19	ابوشنب	ابوشنب	ابشواى وقراها	44	ليلى ايوب سليمان	ابوشنب	ابشواى وقراها
20	ابوشنب	ابوشنب	ابشواى وقراها	45	أمل ايوب سليمان	ابوشنب	ابشواى وقراها
21	ابوشنب	ابوشنب	ابشواى وقراها	46	رفاً احمد قطب	ابوشنب	ابشواى وقراها
22	ابوشنب	ابوشنب	ابشواى وقراها	47	فتوح حماده احمد	ابوشنب	ابشواى وقراها
23	ابوشنب	ابوشنب	ابشواى وقراها	48	باتعه على قطب	ابوشنب	ابشواى وقراها
24	ابوشنب	ابوشنب	ابشواى وقراها	49	ساميه قرنى محمد	ابوشنب	ابشواى وقراها
25	ابوشنب	ابوشنب	ابشواى وقراها	50	ام هاشم رمضان على	ابوشنب	ابشواى وقراها

م	الاسم	العنوان	مكان البيع	م	الاسم	العنوان	مكان البيع
51	مها قرنى عبد الغنى	الدسوقى	ابشواى وقراها				
52	رزانه قرنى عبد الغنى	الدسوقى	ابشواى وقراها				
53	هناء مصطفى عبد القوى	الدسوقى	ابشواى وقراها				

54	جيهان عبدالحليم عبد	الدسوقي	ابشوای و قراها			
55	جمات رمضان محمد	الدسوقي	ابشوای و قراها			
56	ماجده فضيل	الدسوقي	ابشوای و قراها			
57	خيريه محمد عبدالكريم	الدسوقي	ابشوای و قراها			
58	زهيه شحات محمد على	الدسوقي	ابشوای و قراها			
59	عزيزه عبدالحميد مبروك	الدسوقي	ابشوای و قراها			
60	نوره عزوز الراغوتى	الدسوقي	ابشوای و قراها			
61	فايزه عبد المولى	الدسوقي	ابشوای و قراها			
62	ساميه جمعه غانم	الدسوقي	ابشوای و قراها			
63	عنيات عزوز احمد	الدسوقي	ابشوای و قراها			
64	سميره عبد العال غانم	الدسوقي	ابشوای و قراها			
65	زكويه محمد عزيز	الدسوقي	ابشوای و قراها			
66	سميره محمد رمضان	الدسوقي	ابشوای و قراها			
67	ناديه معوض رمضان	الدسوقي	ابشوای و قراها			
68	سلامه عبدالسلام محمد	الدسوقي	ابشوای و قراها			
69	ناديه عبدالحليم عبدالقوى	الدسوقي	ابشوای و قراها			
70	صباح جمعه يوسف	الدسوقي	ابشوای و قراها			