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End-term Project Result Assessment and Evaluation of the YEAG Project Evaluation Report



SUBMITTED BY:

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Acronyms

ABA	Aswan Business Association
AWSC	Aswan Water and Sanitation Company
PWMP	Potable Water Management Programme
BMP	Best Management Practices
CDA	Community Development Association
DAC	Development Assistance Committee
ECA	The Egyptian Chefs Association
EQ	Evaluation Question
GAFRD	General Authority for Fish Resources Development
MoALR	Ministry of Agriculture and Land Reclamation
M&E	Monitoring and Evaluation
MoiWR	Ministry of Irrigation and Water Resources
MSMEDA	Micro, Small and Medium Enterprise Development Agency
MSMEs	Micro, Small and Medium Enterprises
NOIF	National Institute of Oceanography and Fisheries
PIU	Project Implementation Unit
RBM	Results-based Management
SDC	Swiss Cooperation and Development
SEED	Strengthening Entrepreneurship and Enterprise Development
SMART	Specific, Measureable, Achievable, Relevant, and Time-bound
STREAMS	Sustainable Transformation of Egypt's Aquaculture Market System
ToC	Theory of Change
ToR	Terms of Reference
ToT	Training of Trainers
VSLA	Village Savings and Loans Association
WEE	Water Efficiency and Economic Support
WR	Women Retailers
YEAG	Youth Employment in Aswan Governorate; Extension of fisheries and aquaculture interventions project
YEP	Youth Employment in Aswan Governorate project



Executive Summary

Youth Employment in Aswan Governorate; Extension of fisheries and aquaculture interventions (YEAG) project is an eighteen-month intervention led by WorldFish and supported by the Swiss Agency for Development and Cooperation (SDC). The project, which was implemented during the period July 2017 – December 2018 – and later extended till end of May 2019, aimed to achieve improved nutrition of and economic opportunities for poor Egyptians resulting from sustainable expansion and management of the aquaculture and fisheries sectors in Aswan. YEAG had the following objectives: (i) expanding opportunities to develop equitable, productive aquaculture systems; (ii) improving market practices for fish produced in Aswan leading to higher profits for the communities engaged in the aquaculture and fisheries sectors in Aswan; and (iii) increasing the sustainability of fish supply from capture fisheries in Lake Nasser and the Nile River through the application of fisheries management plans.

Arab African Advisers (AAA) was contracted to conduct the End-term Review of the Extension YEAG project to identify and assess the results achieved by WorldFish and partners during the project life at outcome and output levels and draw lessons and develop recommendations that may help in improving the selection, enhancing the design and implementation of similar future projects and activities in the country. The evaluation was conducted during March-May 2019.

YEAG's End-of-Term Evaluation envisaged answers to the ToR Evaluation questions from the perspectives of **DAC Evaluation Criteria**, namely, Relevance, Efficiency, Effectiveness, Sustainability (with indications of project impacts) and cross-cutting issues (gender, M&E/RBM & governance, and communication). In addition, challenges and limitations, along with the lessons learnt and relevant recommendations were also addressed throughout the evaluation process, with view to ensuring evidence-based design and streamlined implementation of future similar interventions. The evaluation was conducted using a mix of qualitative (i.e. desk review, key informant interviews and focus group discussions) and quantitative (surveys) methods to answer the evaluation questions. A grade was given to each of the four criteria: good/very good, with problems and serious deficiencies, based on EC's grading system.

From a **project-relevance** perspective, the project was found to be closely relevant to both the Swiss Cooperation Strategy for Egypt (2017–2020) – which emphasizes Inclusive Sustainable Economic Growth and Employment as one of the main domains of cooperation – and to Egypt's 2030 Vision. At the local level, YEAG interventions were highly relevant to the conditions of Aswan governorate, which is considered the fourth poorest governorate in Upper Egypt. The project was responsive to the governorate's considerable economic challenges, particularly with respect to youth employment and women empowerment. (grade = very good).

Analysis of the project's **efficiency** revealed pursuance of a participatory approach, wherever possible, as local partners/stakeholders had reasonably contributed to the project's interventions, though constrained by certain regulatory, financial and some socio-economic limitations. Interventions were offered on the basis of beneficiaries' needs, and accordingly, YEAG's implementation mechanisms and contractual arrangements are considered to be suitable for achieving the targeted results. However, delays and underachievement of some targets point to design issues in setting realistic targets given the local context and the duration of the project. Although constraints were identified in project design, based on WorldFish's experience in YEP, they were not appropriately accounted for in target setting (in quantitative terms). This led to a three-month extension of the project, to allow for the achievement of targets. The project's financial results reveal a 17% end-of-project underspending of the budgeted figures. The Evaluation Team could not assess YEAG's outputs



efficiency due to the absence of cost-coefficient per output in financial reporting of the project. (grade = with problems).

YEAG has met – to a reasonable extent - the **effectiveness** evaluation criterion. The project interventions largely achieved the job creation/retention and increase in net profit targets for all categories of beneficiaries to varying degrees. The project also helped improve the livelihood conditions of 450 fishers by means of providing 50 solar cells in fish camps, which availed them access to lighting in the evening. At the policy level, the project developed, in collaboration with GAFRD, the Lake Management Plan and contributed to issue of GAFRD decree promoting integrated agro-aquaculture at the national level, which supports establishing an inclusive (pro-poor) aquaculture policy framework in Aswan. The main limitation in terms of achievement of targets was the establishment of 50 fish farms, where the project achieved 45% of its set target, due to the existing regulatory framework, which is not favorable to use of fresh water in aquaculture. Such a challenge was not given due consideration in the design phase. (grade = good).

In the context of the **sustainability/impact indications**, the evaluation results show early indications of contribution to impact of improved nutrition for poor Egyptian households (indicated by increased consumption of farmed fish), and increased economic opportunities (indicated by increase in net profits of fishers, processors and women retailers). These potential impacts are likely to increase through *demonstration effect* by copying successful models in the community – e.g. fishers, women retailers and processors; and *multiplier effect* – which translates into improved economic opportunities – as a result of jobs created/retained and increased profits for beneficiaries beyond the life of the project. However, impacts could be constrained at the policy and institutional level. In particular, the lack of comprehensive regulatory reform that allows use of fresh water for aquaculture purposes could impact uptake of aquaculture in Aswan. In addition, at the level of fishers' associations, more training is required – on a range of issues – to raise their institutional capacity. (grade = with problems).

As for **gender**, women retailer trainees have acquired skills that have helped increase their income levels and improve their livelihood conditions. In respect to the villages savings and loans association (VSLA) groups, to which women committed to continue after the end of the project, they will generate saving that will help them upscale their businesses. Also, the fact that women trained other women who were not beneficiaries of the project points to the possibility of dissemination of knowledge and skills they have acquired even beyond the project life.

YEAG implemented an effective/cascading **communication** strategy, which was adequately based on regular recording and documentation of the achievements, events and publications, along with an appropriate mix of communication and dissemination channels. However, some categories of targeted beneficiaries (e.g. fishers) were not cognizant of SDC's role in the project.

In terms of **governance**, YEAG's reporting and monitoring and evaluation (M&E) system were inadequate as they do not allow for monitoring of project results in order to support management in decision making. The M&E matrix was missing targets and reporting was focused on narrative of activities rather than project results/outputs as per the logframe. Also, there was no evidence in the project documents pertaining to how the outcomes related to job creation/retention and increase in profits will be measured and monitored throughout the project.

Key lessons learnt and good practices in YEAG identified through the evaluation include: engagement of local partners, particularly in women related activities is crucial for success; training is recommended to comprise components related to an economic/technical activity (e.g. smoking or cooking), as well as a business-related



component (e.g. entrepreneurship, marketing, business planning), in order to maximize the benefit for the beneficiaries; training activities need to be tested, as a pilot by the implementing organization, prior to delivery, in order to ensure application and sustainability of the activity after the training.

Main recommendations for stakeholders are as follows:

- **Donors:** Future interventions in fisheries and aquaculture sector need to focus on processing and transportation, due to the high potential of these activities and the benefits they are expected to generate for fishers and fish farmers.
- **Implementing organization:** Project objectives and targets need to be realistic given the local context and the duration of the project, and risks identified in risk assessment should be given due consideration in the design stage; a robust M&E system (with SMART indicators and targets) should be put in place at an early stage of the implementation; and financial reporting should include classification of expenditure by major and sub interventions to allow assessment of efficiency.
- **Policy makers:** Amend the current regulatory framework which prevents the use of fresh water for aquaculture purposes; and follow up on the development of implementation of Lake Management Plan.



1. Introduction

The major **goal** of the Youth Employment in Aswan Governorate; Extension of fisheries and aquaculture interventions (YEAG) project – which is an eighteen-month intervention led by WorldFish and supported by the Swiss Agency for Development and Cooperation (SDC) – is to achieve improved nutrition of and economic opportunities for poor Egyptians resulting from sustainable expansion and management of the aquaculture and fisheries sectors in Aswan.

YEAG builds on the SDC-funded, Youth Employment in Aswan Governorate (YEP) which began in July 2014 and finished in June 2017. The largely agriculturally focused project was managed by CARE and included WorldFish as a project partner responsible for developing opportunities for employment and improved income among beneficiaries involved in fisheries, aquaculture and fish processing. While implementation of the overall YEP project was behind schedule and faced challenges to meet projected economic and employment outcomes, fisheries and aquaculture interventions implemented by WorldFish had started to show promise.¹ The mid-term review of YEP project also highlighted the need for continued support for the fisheries and aquaculture sector in Aswan beyond June 2017. It was, therefore, proposed to extend the period of implementation of fisheries and aquaculture activities in Aswan through YEAG project under a new contract between WorldFish and SDC. The project complemented on-going SDC support to the Sustainable Transformation of Egypt's Aquaculture Market System (STREAMS) project, which was also being implemented by WorldFish.

YEAG project's **objectives** include: (i) expanding opportunities to develop equitable, productive aquaculture systems; (ii) improving market practices for fish produced in Aswan leading to higher profits for the communities engaged in the aquaculture and fisheries sectors in Aswan; and (iii) increasing the sustainability of fish supply from capture fisheries in Lake Nasser and the Nile River through the application of fisheries management plans.

The underlying **rationale** for YEAG's interventions emanates from the status of the fisheries and aquaculture sector in Aswan namely, (i) fishery activities are concentrated around Lake Nasser and sustain primary livelihoods for around 10,000 fishermen, 90 wholesaling businesses and 450 informal retailers; (ii) Aswan fisheries provide a crucial source of food to Upper Egypt's populations in the governorate, along with other governorates of Upper Egypt (Assuit, Qena, and Sohag); and (iii) all of the sector's jobs and fish supplies for Upper Egypt are threatened by unsustainable management and overfishing of the Lake Nasser fishery.

During the project period, emphasis has been placed on developing and validating management practices and approaches on pilot-scale basis, with view to scaling-up by the regulatory authorities and fisheries organizations, hence, attain sustainability of the intervention results after the end of the project.

2. Background

The main outcomes of the project are:

- **Outcome 1:** Technical and regulatory barriers are overcome in order to foster the adoption of equitable, productive aquaculture production systems by the poor and vulnerable.

¹ WorldFish, YEAG Project Proposal, 6 July 2017.



- **Outcome 2:** More efficient and safer aquaculture and fisheries market practices adopted by wholesalers, processors and retailers resulting in greater benefits for market actors and consumers.
- **Outcome 3:** Sustainable fisheries management plan adopted for application by regulatory authorities and fisheries organizations

As per the ToR (Annex (1)), the objectives of the End-term Review of the Extension YEAG project is to identify and assess the results achieved by WorldFish and partners during the project life at outcome and output levels. In addition, the aim of the evaluation is to draw lessons and develop recommendations for WorldFish, the Donor and the project stakeholders and partners that may help in improving the selection, enhancing the design and implementation of similar future projects and activities in the country.

WorldFish contracted Arab African Advisers (AAA) to conduct the end-term review of YEAG project. AAA carried out the evaluation in March – May 2019.

3. Scope and Analytical Framework

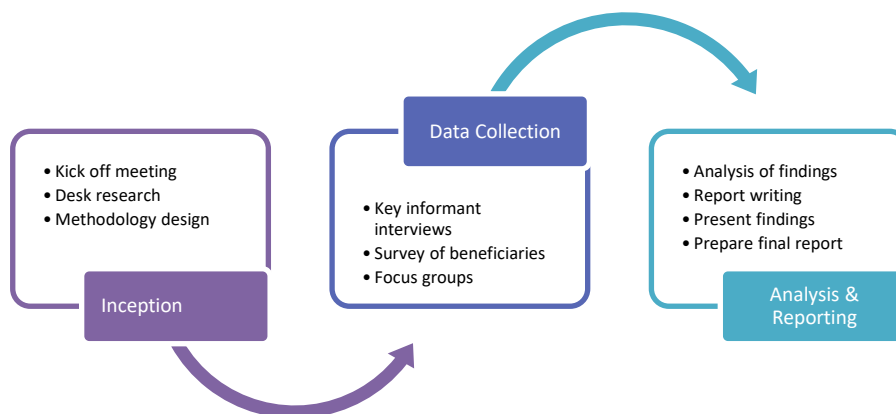
The evaluation scope of work is outlined in the ToR as follows:

- (i) Evaluation of the project outputs and outcomes while making reference to renowned evaluation criteria, including but not limited to the DAC criteria.
- (ii) Generate sufficiently disaggregated data to inform progress made with respect to youths and women as envisaged in the project targets, guided by project logical framework indicators.
- (iii) Identify lessons learned and related good practices useful for future initiatives. In this light, the report is expected to make reference to specific good practices.
- (iv) Based on the findings and conclusions, it is expected to identify the relevant implications and lessons learned related to the policy dialogue.

Based on the above scope, the evaluation was broken down into three phases:

- 1) Inception
- 2) Data collection
- 3) Analysis and reporting

Figure 1: Evaluation phases





4. Evaluation Criteria and Questions

In line with the ToR, AAA Team used the DAC evaluation criteria, namely, relevance, efficiency, effectiveness and sustainability. In particular, the evaluation sought to answer the following questions outlined in the ToR:

- What are the concrete results of the project and its outreach vis-à-vis the project indicators?
- Does the theory of change (ToC) still stand? Has it been adapted, if so why and how?
- Was the project efficient in implementation concerning input vs. outputs, were there major deviation from the original budget?
- How were project partners involved in the project?
- What are the direct and indirect, positive and negative effects of the project on the beneficiaries (individuals and institutions)?
- What is the degree of achievement of the planned objectives vs. the achieved?
- What were the effects of the project about the reduction of inequality between men and women?
- What were the effects of the project on transversal themes such as governance, M&E, and RBM?
- What are the main lessons learnt from the project with regards to its relevance, approach, innovation, partnerships and communication?

Thus, the evaluation design was developed based on the identified criteria and research questions. Elements of evaluation criteria are provided in Annex (2).

5. Evaluation Approach and Methodology

5.1. Evaluation Approach

The evaluation was based on linking the evaluation questions with the DAC evaluation criteria (relevance, efficiency, effectiveness, sustainability and cross-cutting areas: gender, organization and management; and communication) through a three-step approach: (a) adopting a mixed-method design approach (i.e. qualitative data with quantitative techniques) to get answers to the evaluation questions (as stated by the ToR evaluation questions and the SDC-focused issues); (b) drawing-up the evaluation findings, conclusions and lessons learnt/recommendations; and (c) deriving an overall grade per criterion: (i) very good; (ii) good; (iii) problems; and (iv) serious deficiencies based on EC's grading system presented in Table 1.²

Table 1: Grading reference table for evaluation criteria

Qualitative	Grading reference for evaluation criteria
Good/very good	The situation is considered satisfactory, but there may be room for improvement. Recommendations are useful, but not vital to the project or programme.
With problems	There are issues which need to be addressed, otherwise the global performance of the project or programme may be negatively affected. Necessary improvements do not however require a major revision of the intervention logic and implementation arrangements.

² Directorate General for International Cooperation and Development, *Results Oriented Monitoring Handbook*, version 5, October 2018, p. 39, https://ec.europa.eu/europeaid/sites/devco/files/rom-handbook-20181025_en.pdf.

Qualitative	Grading reference for evaluation criteria
With serious deficiencies	There are deficiencies which are so serious that, if not addressed, they may lead to failure of the project or programme. Major adjustments and revision of the intervention logic and/or implementation arrangements are necessary

5.2. Sources of Data and Information

The Evaluation Team used both secondary and primary sources of information. Secondary sources included project documents, evaluations of other projects, e.g. IEIDEAS, STREAMS, YEP, SEED and others. Primary sources of information are summarized in Table 2 below.

Table 2: Data collection sources

Source	Purpose	Stakeholders	Total no. of events
Key informant interviews	To obtain first-hand knowledge from project stakeholders about the project design and/or implementation	<ul style="list-style-type: none"> - SDC - WorldFish - Project team - ABA - Relevant government officials (Nasser Lake, GAFRD) - Aquaculture professors - CDAs - Fish processors - Fish farmers - Women retailers - Youth trained by the project 	24
Group interviews / focus group discussions	To obtain the feedback and insights of the beneficiaries about the interventions provided under the project, how they contributed to achieving the project's objectives and how they impacted on their lives	<ul style="list-style-type: none"> - Women beneficiaries - Fisheries associations - Aquaculture professors 	5
Survey	To assess change in behavior and perceptions of beneficiaries (i.e. fishers, women, and fish farmers) as result of the project interventions and their needs for future interventions	<ul style="list-style-type: none"> - Fishers - Women beneficiaries - Fish farmers 	3 surveys (85 fishers, 71 women and 13 fish farmers)

5.3. Methods Adopted

AAA Evaluation Team used a mixed-method design approach (qualitative data with quantitative techniques). The qualitative methods involved desk review of all project documents and collection of primary data using key informant interviews and focus groups. The qualitative analysis was supported by quantitative surveys to assess the perceptions of targeted beneficiaries of the interventions delivered by the project.



5.3.1. Preparatory/inception phase

The evaluation started with the kick-off meeting with WorldFish to learn about the project and obtain all the relevant documents. The Evaluation Team Leader also met with SCD and learned about their expectation from the evaluation; SDC also elaborated on the evaluation questions that they wished to be addressed.

As the project was ending on 31 March 2019, and the project team would no longer be available on the ground, the Evaluation Team thought it was better to start the evaluation with the mission to Aswan, which involved key informant interviews (including interviews with project staff), focus group discussions with beneficiaries and field visits, before full review of project documents in order to gain a better understanding of the activities undertaken and the situation on the ground. Stakeholder input was also deemed important to inform the design of the survey questionnaires. It was decided, after consultation with WorldFish, that any gaps in information identified later, would be filled in by contacting relevant stakeholders by phone. Meetings with project stakeholders were coordinated by the project staff.

In addition to review of project documents (which include project proposal, monitoring reports, annual reports, communication material and publications produced by the project including Management Plan for the Lake Nasser Fisheries: Stock Assessment Study), the Evaluation Team conducted desk research on similar projects in order to benchmark project achievements against best practices in comparable contexts.

5.3.2. Documentation of data and information

The Evaluation Team followed the protocols outline in Annex (3) in documentation of data and information collected from secondary and primary sources.

5.3.3. Primary data collection

Primary data was collected from key informant interviews, focus group discussions and surveys. As shown in Table 2, AAA Evaluation Team conducted 24 interviews and 5 focus group discussions with key stakeholders identified with SDC, WorldFish and the project manager.³ Stakeholders interviewed included the donor, implementing organization, partners, government entities and project beneficiaries. A list of people interviewed is provided in Annex (5). Surveys were conducted for fishers, women and fish farmers. The design and statistical analysis of the surveys are presented in Annex (6) and Annex (7) respectively.

5.3.4. Data collection challenges

The Evaluation Team faced the following challenges:

- Lack of or unclarity of baseline data for some indicators against which to measure changes in the indicators values/status: Baseline data by itself is not sufficient to assess attribution, but without it, the evaluator cannot measure change in any rigorous way. As an approach to address this problem, the Evaluation Team undertook to use proxies, including: secondary data, individual recalls, and participatory group techniques to reconstruct history and assess changes produced by the interventions.
- Reaching some respondents in the surveys: Some of the respondents were not reachable on the mobile numbers in the databases provided by the project team – due to remoteness of fishers locations in the Lake. The field researchers were able to reach them by asking other respondents in their community for alternative contact numbers. Additionally, contacting women posed another challenge due to the

³ Questions asked to the various groups of stakeholders are presented in the data collection tools in Annex (4).



conservative social norms of the community; the Evaluation Team addressed this challenge by employing a female field researcher from Aswan to communicate with women.

6. Findings, Conclusions and Recommendations

In this section, we are going to present the findings, conclusions and recommendations of the evaluation based on the Evaluation Team's review and analysis of secondary data and primary data, **in relation to DAC evaluation criteria and the ToR's evaluation questions.**

6.1. Evaluation Criterion: Relevance

The extent to which the objectives of YEAG's interventions were consistent with beneficiaries' requirements, country needs, as well as partners' and donors' policies. Also, whether the interventions' logic remained appropriate, given changed circumstances.

6.1.1. Relevance-specific findings

- YEAG's ToC (Annex (8)) still stands. It has not been changed throughout project implementation. YEAG aimed at improving nutrition and creating economic opportunities for the disadvantaged local communities of Aswan, through sustainable development of the aquaculture and fisheries sectors in the governorate. Demographic data of the governorate reveal high levels of unemployment among youth, as well as high levels of poverty, particularly with the downturn trend in the tourism sector. Accordingly, any intervention aimed at job creation and increased income becomes significantly relevant to the local communities of Aswan governorate.
- The Swiss Cooperation Strategy for Egypt (2017–2020) emphasizes Inclusive Sustainable Economic Growth and Employment as one of the main domains of cooperation, which also comes in line with Egypt's 2030 Vision. As young women and men are playing a key role in shaping Egypt's socio-economic goals, the Strategy document of Switzerland is giving "special attention to their needs and aspiration".
- The Egyptian government is demonstrating interest in the development of fisheries resources. A committee was set-up to improve productivity of Lakes, with special interest in Lake Nasser. Fisheries are concentrated in Lake Nasser area, with an estimated annual production of 26,000 tons.
- According to WorldFish, fishing represents the main source of income for about 13,000 fishermen, 90 wholesalers and 450 retailers around Lake Nasser⁴, in addition to indirect employment opportunities. Furthermore, fish processing is an important activity in Aswan. There are 50 centers for packing and sale of salted fish. Some 400 people work in fish processing. On the other hand, aquaculture activities are still limited.
- In respect of YEAG's relevance/synergy with national/donor-funded projects in Egypt, the project targeted the same sector, geographic location and/or segments of beneficiaries of the following programs:
 - **National-level/Mega Fish Resources Programs**, including: (i) Aquaculture Project in Ghalyoun Pond Kafr El-Sheikh governorate; (ii) the three-phase Suez Canal aquaculture program (with a

⁴ WorldFish, Extension of fisheries and aquaculture activities implemented by WorldFish under the Youth Employment in Aswan Governorate Project Proposal, 6 July 2017.



total of 4,000 ponds, in an area of 7,500 feddans); and (iii) East Port-Said aquaculture project, covering a total area of 15,000 feddans.

- **Water and Sanitation Projects in Aswan:** Switzerland's engagement in the water sector (water supply and irrigation including infrastructure, institutional strengthening and awareness raising) in Aswan has proven to be successful. Projects funded by SDC include:
 - Water Programme Aswan, Component 3: Water Efficiency and Economic Support (WEE) in Nasr El Nuba and Kom Ombo, through which 4,078 farmers (planned 2,000) were made aware of efficient water and agriculture practices through 30 model farms (planned 40) and agricultural extensions (treatment of salinated fields); and 450 women and 400 youth (planned 400 women and 600 youth) acquired skills to actively participate in communities development and conduct 11 (planned 10) participatory rural appraisals.
 - Access to quality drinking water and more efficient water usage, which financed the construction of a pumping station, a ground reservoir with a capacity of 2,000 m³, 3 km of water transmission pipelines as well as the rehabilitation of 9 km of water distribution pipelines. Other activities including capacity building and technical assistance aimed to strengthen the administrative and technical capacities of the Aswan Water and Sanitation Company (AWSC), as well raise awareness within the schools and the community on reduced water consumption.
 - Potable Water Management Programme (PWMP) in Upper Egypt Phase 1 – Aswan: The intended impact of the on-going program is an effective, efficient and reliable service provision of potable water by the affiliated water and wastewater companies in Upper Egypt. This is expected to contribute to sustainable and equitable access to potable water.
- **USAID-funded Strengthening Entrepreneurship and Enterprise Development (SEED) in Egypt project:** SEED provides technical assistance, capacity building, and training to relevant stakeholders and counterparts in order to support the growth of micro, small and medium size enterprises (MSMEs) and promote entrepreneurship in Egypt. SEED interventions include review and assessment of current aquaculture and post-harvest lending programs in Egypt, with special emphasis on MSMEs. In the course of reviewing and designing credit facilities for MSMEs in the aquaculture value chain, SEED is covering the following market and marketing aspects: supply and demand of tilapia on a seasonal basis; tilapia substitutes i.e. (fish imports that substitute tilapia); main markets and market channels for tilapia; current harvest, post-harvest practices and expected shelf life; geographic areas where fish production is concentrated; production volumes; and average tilapia prices and price fluctuation during the year.

Such a synergy implies mutual enhancement of the projects' respective interventions, hence, the potentially robust and sustainable results of the synergetic projects, both from the individual and collective perspectives.

6.1.2. Relevance-specific conclusions


- YEAG's ToC (Annex (8)) is relevant to the project's context, goal and objectives.
- YEAG interventions were highly relevant to the strategy of Switzerland for Egypt's sustainable development, which focuses on Upper Egypt, including Aswan Governorate. The governorate was



considered the fourth poorest in Egypt⁵. In the meantime, Switzerland's cooperation activities have built-up a well-established network in that region.

- Relevance of the project to Switzerland/SDC strategy for Egypt (2017-2020) is linked to Domain 2 of this Strategy: Inclusive sustainable economic growth and employment. The goal of Domain 2 is to contribute to sustainable and inclusive economic development to foster resilience in an integrated global economy. This is envisaged to be achieved through the following outcomes: (i) improved access to sustainable basic infrastructure services and inclusive urban development; (ii) increased resilience of the economy generating more and better jobs through a more competitive private sector; and (iii) more inclusive financial services and improved business environment.
- YEAG was directly relevant and responsive to the considerable economic challenges of the governorate, particularly with respect to youth employment and women empowerment. It aimed to provide young women and men with the economic perspectives through pro-employment market growth and entrepreneurship promotion in the fisheries and aquaculture sectors.
- The project followed a participatory approach, wherever possible, as interventions were offered based on beneficiaries needs. For example, the priority issue for advocacy (i.e. banning of fishing in Nasser Lake) was decided by the fisheries associations. Furthermore, Lake Nasser Management Plan was developed and approved in consultation with General Authority for Fish Resources Development (GAFRD), and fisheries associations.

Grading YEAG's Relevance

Green 
Very Good

*YEAG's context - assessed on the basis of the Relevance Criterion/Sub-Criteria is overall satisfactory.
The project interventions are relevant to SDC's strategies and national priorities and needs.*

6.2. Evaluation Criterion: Efficiency

Measuring how economically resources/inputs (funds, expertise, time, etc.) were converted into outputs.

6.2.1. Efficiency-specific findings

- The project partners comprised the following:
 - Aswan Business Association (ABA).
 - The Egyptian Chefs Association (ECA): organizing a cooking competition.
 - Misr Aswan Company: training on fish smoking for female fresh graduates and women retailers (WRs).
 - Bait El-Khair association: overseeing the production of leather products (from fish skin). Women members of the association made and sold leather products.
 - Misr Aswan for Fishing and Fish Processing Company.
 - National Institute of Oceanography and Fisheries (NIOF).

⁵ Girgis, Hanan, *Localizing the Targets of the Sustainable Development Goals on Governorate Level*, (UNFPA, 2018).



- Private consultants and university professors.
- The project team engaged with these partners, and their active participation in the various activities of the project contributed towards the achievement of targets.
- At the end of December 2018 - the original end date of the project - some of the project targets had not been met. Therefore, WorldFish requested a three-month extension, and SDC issued a letter of acceptance (Annex (9)) to allow sufficient time to deliver uncompleted interventions, including:
 - Best fishing and fish handling practice for fisheries capacity building of 1,000 fisheries;
 - Creation of 50 jobs in fish farms and, along with retaining 100 jobs in fish retail and food services;
 - Promotion activities for aquaculture development in Aswan for the result of establishing 50 new farms;
 - Achieving the 100% target planned for WR training on best management practice for post-harvest handling.
 - Preparing the project's final report and conducting impact evaluation.
- Status of disbursement, as of end of December 2018, based on which the three-month no cost extension (January – March 2019) was granted, was as follows:
 - *Fisheries management*: Allocations: CHF 67,825 – Disbursement: CHF 160,252 – Result: CHF 92,427 over disbursement.
 - *Aquaculture & culture-based fisheries*: Allocations: CHF 75,062 – Disbursement: CHF 99,460 – Result: CHF 24,397 over disbursement.
 - *Gender Activities*: Allocations: CHF 411,615 – Disbursement: CHF 157,058 – Result: CHF 254,556 non-disbursed.

The overall result as end of December 2018 was a non-disbursed amount of CHF 137,732⁶.

Comparison of the project's budget and the actual expenditure throughout the implementation (including the 3-month extension period) indicates an approximate 17% underspending of the total budgeted figure. As shown in

⁶ Calculated by the Evaluation Team from the Minutes of YEAG Closing, 6 January 2019, based on exchange rate of \$1 = CHF0.9841.



- Table 3, this aggregate percentage deviation reflects varying deviations at the level of the individual budget lines. The two major line items demonstrating the highest levels of underspending are: Gender Activities (-62%) and Equipment for the Project Implementation Unit (PIU) (-41%). Items that indicate almost equal values of budgeted figures and the actual expenditure are those of Personnel Cost and Consultancy Works, with deviations of 0.3% and 0.4%, respectively.



Table 3: YEAG budget and actual expenditure (as of end of project, March 2019)

Budget Line	YEAG Budget (1) (CHF)	Actual Expenditure (2) (CHF)	Differential (2-1) 3 (CHF)	Differential as Percentage of the Budget Value (3:1)
Personnel Cost	185,385	185,919	534	0.3%
Travel Cost	8,441	8,884	443	5.3%
Equipment for PIU	2,792	1,644	1,148	-41.1%
Operating costs	62,004	48,416	13,588	-21.9%
Project Activities				
Fisheries Management	145,807	133,100	12,707	-8.7%
Aquaculture & Culture-based Fisheries	36,466	40,960	4,494	12.3%
Gender Activities	136,116	51,716	84,400	-62.0%
Consultancy Works	13,806	13,861	55	0.4%
Total cost without OH	590,816	484,499	106,317	-18.0%
WF OH 12%	61,555	58,140	3,415	-5.5%
Total cost with WF OH	652,371	542,639	109,732	-16.8%
CG cost 2%	11,490	10,853	637	-5.5%
Grand Total	663,861	553,492	110,369	-16.6%

- The Evaluation Team could not assess YEAG's outputs efficiency due to the absence of cost-coefficient per output in financial reporting of the project. For example, no parameters for cost per training session/trainee or jobs created/retained are available.
- Reasons for delay in these areas were identified, by project stakeholders, as follows:
 - The Stock Assessment Study, which formed the basis of BMP training, was completed by the end of 2017⁷, which meant the target for fishers training could not be met by the end of December 2018 but were met by the end of the project.
 - Given the conservative nature of the local community, it took time to mobilize women to join the project activities.
 - For fish retail, namely in smoking and drying, it took almost a year to do the testing and get appropriate results.
- Some beneficiaries experienced financial constraints, as after showing interest in introducing aquaculture they realized they did not have enough funds to dig the ponds, which resulted in lower levels of achievement for some targeted results.

6.2.2. Efficiency-specific conclusions

- YEAG's implementation mechanisms and contractual arrangements were suitable for achieving the expected results.

⁷ The Stock Assessment study undertaken by the end of 2017; however, data analyses and lake management plan, according to FAO protocol, were completed by mid 2018. The fishers training was delayed to include the results of the assessment study.



- Local partners/stakeholders had reasonably contributed to the project's interventions, though constrained by regulatory, financial and somewhat socio-economic limitations.
- Delays and underachievement of some interventions/results – mainly due to more time required than planned to undertake foundational work (notably stock assessment study in the case of fishers training, mobilizing women for women related activities, and obtaining required results for fish smoking) – point to design issues in setting realistic targets given the local context and the duration of the project. Although constraints were identified in project design, based on WorldFish's experience in YEP, they were not appropriately accounted for in target setting (in quantitative terms).

Grading YEAG's Efficiency

Orange 

With Problems

Quality, costs and schedule in the delivery of inputs faced issues which needed to be addressed. The project's financial results reveal a 17% end-of-project underspending of the budgeted figures. Cost-efficiency of some outputs could not be assessed, and, for others, corrective cost-related measures were not duly highlighted.

6.3. Evaluation Criterion: Effectiveness

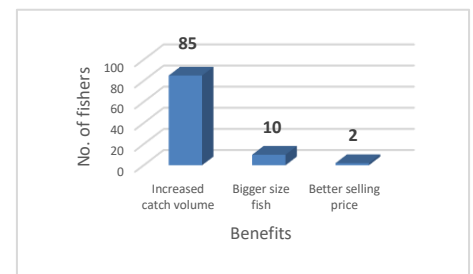
The extent to which the objectives of YEAG's interventions were achieved, or are expected to generate longer-term impacts, taking into account their relative importance.

6.3.1. Effectiveness-specific findings

- The project has three main output areas: Integrated and small-scale aquaculture systems; improved post-harvest handling and fish processing practices; and development of fisheries management plan for Lake Nasser including conservation measures and livelihood improvements for beneficiaries. Below are the concrete results of the project and its outreach vis-à-vis the project indicators. The results presented highlight the degree of achievement of the planned objectives vs. the achieved (as also shown in the logframe's presentation of the status of outcomes-outputs as of project completion on 31 May 2019 in (Annex (8)). Analysis of the effectiveness-related findings also address the challenges encountered throughout implementation and corrective/mitigation measures adopted.
- A total of 79 jobs were created in small-holder fish farms. This represents 79% of the project's targeted number (100 jobs).
- Net profits from the small-holder fish farms (a total of 21 farms) amounted to an annual average of \$27,167, which is equivalent to an average of \$1,294 per fish farm annually. This average amounts to 81% of the project's targeted net profit per fish farm (\$80,000 annually for a targeted number of 50 fish farms).
- GAFRD chair issued decree to support integrated aqua-agriculture at the national level. Accordingly, there has been full achievement of the project's target related to establish an 'Inclusive (pro-poor) aquaculture policy framework in Aswan.'

- 64 jobs were created in fish processing operations in Aswan, of which 14% were jobs for women, while youth jobs accounted for 35% of this total. The number of total jobs created exceeded the corresponding target (50 jobs) by some 28%.
- Net profits of fish processors increased by 9%. This result entails a 90% level of achievement of the 10% target set by the project for fish processors profit increase.
- WR reported an average increase of preserving fish before selling to 5.3 days after the intervention vs. the corresponding target for the fish shelf life of 3 days. This means that the level of achievement of YEAG's intervention is 177%.
- YEAG set a target for improving access to fish through wider distribution. In specific terms, fish was targeted to be made available at least 3 days/week in key villages/markets, against the current availability of only one day per week. No figures are available regarding the level of achievement related to this target.
- The survey revealed that the average net profit for WR is \$4 per day. The pre-intervention average net profit was \$2 per day, while YEAG's target for post-intervention net profit was set at \$3 per day. Accordingly, the result indicates a 133% level of achievement.
- A management plan for Lake Nasser was developed. This corresponds to, and entails full achievement of YEAG's target: 'Developing and promoting policy recommendations for long-term sustainability of Lake Nasser fishery activities'.
- 12% of surveyed fishers reported increased average size of fish due to adoption of good practices. This result reveals achievement of YEAG's target: 'Increased average size of fish at harvest due to adoption of good practices in test zones'. Assessment of the specific level of achievement, however, could not be made due to the low percentage of the surveyed fishers who reported on the materialization of increase in the catch sizes. In fact, all fishers reported that they benefited from the training offered under the project, and their assessment of the training was positive as the average score was 5 out of 5. All surveyed fishers (85) cited increased fish volume as benefits realized from the training.
- A total of 21 small-holder fish farms & 2 tilapia hatcheries⁸ were established and became operational, creating 79 jobs. YEAG's corresponding target was 50; so, the level of achievement regarding this target is 46%. Some stakeholders pointed out that the reasons why aquaculture did not spread in Aswan were the legislation that banned use of fresh water in aquaculture⁹, and the fact that people are conservative and generally tend to avoid risk.
- 7 fish farming households (out of the 13 surveyed) reported that they eat farmed fish 4 times every month, while the corresponding frequency revealed by other 4 households reported is 8 times every month. YEAG's target for farmed fish consumption by fish farming households is twice per month.

Figure 2: Benefits realized from the training



⁸ The project support the production of mono-sex tilapia in order to produce fast growing fish for the first time in Aswan.

⁹ The Ministry has actually demolished several fish farms, citing enforcement of existing laws. This resulted in farmers' avoidance of embarking into the activity of fish farming.



Accordingly, and based on the weighted average of the survey results, the level of achievement of fish consumption is 270%.

- 127 jobs were retained for women in fish retailing and 64 jobs were created in fish processing, of which 9 jobs were created for women and 55 jobs for men. YEAG's target was to retain 100 jobs for women in fish retailing, as well as create 50 jobs in fish processing (35 for women and 15 for men). Accordingly, the level of achievement for job creation is assessed as follows: (a) 127% (for total no. of jobs retained for women in fish retailing); (b) 128% (for jobs created in fish processing, of which the level of achievement for women's jobs is 26%, while the corresponding percentage for men's jobs is 367%).
- A total of 97 WRs were trained on using fish handling best practices, while no training was provided to wholesalers. Considering that YEAG targeted the training of 100 WRs and 20 wholesalers, it can be concluded that the level of achievement for WRs training is 97%, whereas the corresponding level for wholesalers is 0%. WorldFish reported that they have not managed to realize any progress regarding the wholesalers training target because they were unable to engage wholesalers due to lack of interest on behalf of the latter.
- 90 WRs were trained on VSLA, of which 49 WRs engaged in VSLA schemes. Loans were distributed to 21 WRs, with a total amount of LE 9,480. No quantitative targets were set by YEAG for the VSLA-related intervention, hence, the lack of basis for estimating the level of achievement for this intervention.
- Aswan fish promotion campaign was launched, which entails full achievement of YEAG's corresponding target.
- 22 fish processing operations received support, of which 7 operate in vacuuming and smoking, while 15 are salted fish processors. YEAG had the target of supporting 10 fish processing operations. Accordingly, the level of achievement for this intervention is 220%.
- A stock assessment study was conducted, along with the completion of two relevant reports. These outputs indicate full achievement of YEAG's corresponding targets.
- One policy brief was developed (vis-à-vis the target of 2 policy briefs); in addition, 2 workshops were held with key stakeholders. This indicates 50% achievement of the relevant targets set by YEAG.
- YEAG has provided 50 fishing camps with solar panels, while fisheries organizations provided additional 10. Added to 24 solar panels (which existed prior to the project's interventions), the total becomes 84 solar panels. Compared with YEAG's target of bringing the total number to 100 solar panels, (i.e. adding 76 to the 24 which existed a priori), the level of achievement regarding the supply of solar panels becomes 79% (60/76).
- The entrepreneurship competition was particularly appreciated by youth as it included training on developing a business model. The committee that selected the winners was carefully chosen, comprising members working in financing MSMEs (namely National Bank of Egypt, Alex Bank, Agricultural Bank, and MSMEDA) for two reasons, first, these professionals have the expertise in evaluating a project's feasibility; second, they can open an avenue for financing for youth.



6.3.2. Effectiveness-specific conclusions

- In general, the project managed to achieve most of its targets in terms of job creation/retention and increase in net profits despite some deviations due to contextual constraints¹⁰.
- A direct impact of the project intervention is entailed in the extension of 50 solar cells to the fishers' camps in the Lake, benefiting 450 fishers, to provide them with electricity for lighting at night, which allowed them to fix their nets and charge their mobiles, while saving on fossil fuel. After introducing the solar cells to the Lake, other fishers got credit - through the Fishermen Welfare Association – to buy 10 additional solar cell units in Tushka, Gortta and near the High Dam, pointing to the relevance of the intervention.
- The project team exerted a lot of effort, and worked with other partners, to build trust with the local communities and raise awareness about the benefits of the project.
- Regarding the underachievement of the target of establishing 50 fish farms, interviews revealed that it was difficult to convince people to adopt aquaculture due to regulations that prohibit use of fresh water in aquaculture. Furthermore, aquaculture is not known in Aswan and people who tend to be risk averse wanted to see a successful experience to follow suit. Thus, changing their attitudes required several visits and follow up from the project staff, which was not anticipated initially in the project. For other potential farmers, after expressing interest and receiving technical assistance they decided not to go ahead because of the high cost of digging the pond (around LE 5,000). Given the abovementioned context, it was pointed out, by the project manager, that the project target of establishing 50 fish farms was too ambitious. These conclusions reflect issues that were not adequately taken into consideration in the design of the project and setting of quantitative targets.

Grading YEAG's Effectiveness

Green 
Good

Benefits and capacities resulting from outputs are available as planned/foreseen, of good quality and cascading target groups. Room for improvement, however, exists for future/extension endeavours particularly in terms of objective setting in the design stage of the project.

6.4. Evaluation Criterion: Sustainability / Impact Proxies and Indications

Continuity of results and capacities generated from YEAG after the major interventions have been completed --- the probability of continued long-term benefits, and the resilience to risk of net benefit flows over time.

6.4.1. Specific findings related to sustainability / impact proxies and indications

- Analysis of the project's sustainability-specific findings is based on a dual consideration of the results' Sustainability and Impact. In fact, sustainability findings reflect positive indications and proxies of the project's impact, which could be quantified and subjected to further analysis after the elapse of 2-3 years of project completion.

¹⁰ These constraints are related to underestimation of legislative challenges and time required to produce results in the case of fish processing operations. They are elaborated upon elsewhere in the evaluation report.



- In terms of content and scope, analysis of the project's sustainability/impact proxies and indications covers the direct and indirect, positive and negative effects of the project on the beneficiaries (individuals and institutions).
- The Risk Analysis component of the project proposal identified champions and opponents of the project implementation activities. Accordingly, the project team worked closely with the champions/supporters and undertook to accommodate the opposing standpoints, with a view to ensuring a streamlined implementation process, hence, reach the target beneficiaries. A major case in this regard was the close working relationship with MoALR, GAFRD, fisheries associations and fish processors to ensure policy support to project activities. The project team worked with GAFRD and MoALR during discussion of Lake Nasser Management Plan. GAFRD used the study findings to decide the timing of "no fishing seasons", through discussion with Aswan Governor. Also, lands with high water levels, and thus, not used for agricultural activities, were identified and their owners contacted.
- During a visit, by the Vice Minister of Agriculture for Fisheries and Livestock, to sites of the project activities (December 2017), a meeting was held between the competent Vice Minister and the Governor of Aswan. Throughout the visit and the associated meeting, opportunities emerged to the Lake fishers' communities for discussing their problems with the government. After the meeting, GAFRD and the Lake Management Committee agreed to add one more landing site to the existing three landing sites. This will enable anglers to transport their catch to market in shorter time and consequently reflect on freshness of product in the market. In addition, Aswan Governor agreed to establish a fish auction with the aim of improving the fish market conditions for the catch. According to WorldFish, both policy decisions will lead to improving product quality in the market. In other words, if these decisions materialize, the results will enhance the sustainability of the project results. According to WorldFish, they were consistently advocating throughout the past one and half years; however, action was delayed due to the change of governor.
- On the other hand, the major opponent to aquaculture development remains the MoIWR. MoIWR demolished some farms, at the end of 2017, and imposed fines on fish farm owners in mid 2018, on account of the ban on use of fresh water in aquaculture. This has had an adverse impact on the project, as it discouraged other potential fish farmers from introducing aquaculture. Thus, limited results were achieved in aquaculture because farmers were afraid that their farms would be demolished by MoIWR. It is worthwhile mentioning that in Wadi Nokra, fish farming was more successful because fish farmers thought that they would not be harassed by authorities due to their remote location. Also, many of them already had water reservoirs so they only needed to be advised to put fish there.
- The project staff tried to address these challenges by working closely with GAFRD and the fisheries associations. As a result of a national workshop, organized by the project to promote the integration of agriculture and aquaculture, GAFRD issued Decision No. 999 on 4 July 2018, which stipulates that aquaculture and integrated farms have the same water entitlements as agriculture activities. The decision also permits issue of licenses for integrated farms. The project team worked with the department of farm license at GAFRD to review the licensing procedure of almost 800 feddans in Wadi Nokra. GAFRD reported that these lands had the right to obtain license for use to grow fish (either fish ponds or ranching of water bodies). Furthermore, as a result of interaction with GAFRD and MoALR, GAFRD granted an exception to fish farmers in Aswan to apply for license by email. In addition, the project team was invited by MoALR to contribute to the revised draft of the Aquaculture Law No. 124/1983. The



draft gives priority of water use to fish farming over water usage for crop irrigation in order to take advantage of the nutrients that are available from pond waters due to fish waste.

- All fish farmers interviewed mentioned they benefited from the technical assistance provided under the project. Most of them reported better agricultural crop quality (because of nutrients available from pond water), while almost half noted increased crop production. One farmer remarked that learning about production of fry was useful and another one indicated that learning about fighting weeds, types of fish and fish hatching was beneficial.
- According to interviewed fish farmers, there is now an interest in aquaculture in Aswan as a result of the project; however, for some, funding is a problem as digging a pond costs around LE 5,000. The main problem pointed out by fish farmers who already started producing fish was the high cost of feed, which constitutes 65-70% of the cost of production.¹¹ They explained that there was no feed mill near Aswan, and it cost LE 2,000-3,000 / ton for transportation. WorldFish advised farmers to get together and order the feed to save on the cost of transport, which resulted in a lower transport cost per farmer.
- Solar cells and containers provided by the project to fishers helped improve their livelihood. The solar cells saved on fossil fuel and maintenance, as well as being environment friendly. In addition to the 50 solar cells provided by the project, the Fishermen Welfare Association procured 10 solar panels and offered them to fishers on credit.
- To ensure sustainability of the benefits enjoyed due to the solar cells, the supplier of the solar cells trained the fishers on maintenance during installation and gave them the telephone number of the company to contact in the event of a major problem.. Fishers also indicated that even if the cells broke down they would replace them, as they have become essential for their livelihood, which would be possible through the savings realized due to lower maintenance cost. A survey of 20 fishing camps conducted by WorldFish, in March 2019, showed that use of solar cell resulted in savings in fuel of 4 liters/night and 3-4 kg oil/month, i.e. the equivalent of LE 10,595 annually.¹²
- Using containers was particularly useful for fishers as the system of storage is efficient. They provide longer shelf life, are cleaner and the fish has no smell, have larger and better storage capacity, and involve less waste which also facilitates transport of fish. For example, using traditional methods, out of 100 kg, waste is 20%; traditional methods also involve more effort in using and changing the salt to preserve fish. With containers, on the other hand, there is no waste which leads to an increase in fishers' income.
- Advocacy training was useful for fisheries associations as it enabled them to identify priorities for fishers, where the top priorities were "fishers do not enjoy safe and fair fishing" and "lack of health care". Associations decided to focus on safe and fair fishing. They mobilized fishers and built a case to involve fishers in the decision-making process about the closing time of the Lake. They managed to obtain the approval of GAFRD and the Aquatic Union. However, the campaign came to a halt with the change of the Governor of Aswan. Their advocacy campaign (their case was "poor control of fishing operations in the lake") led to close cooperation between the associations, GAFRD and Surface Water Police, where they started to apply an efficient and effective stop of fishing in the 2019 season. Also, GAFRD and Surface

¹¹ According to WorldFish, aquaculture economic studies indicate that investment cost represents around 10-20% of production cost and fish feed accounts 65-70% of production cost. One ton of fish feed costs LE 8,000-9,000 factory gate price.

¹² The average cost of the battery, which is replaced nearly every two years, is LE 3,000-4,000.



Water Police permitted the association members to follow up on situation in the Lake during the stop fishing season.

- On the level of the associations themselves, the financial and management training of board members, staff and fishers led them to better manage the associations. Thanks to the training, they now know how to prepare staff contracts and financial statements, and develop job description for each job in the associations. According to World Fish, the skills gained, and now practiced due to training, include:
 - Budgeting principles and procedures, including cost and revenue estimation and calculation;
 - Dealing with taxation issues;
 - Developing contracting procedures.

6.4.2. Specific conclusions related to sustainability / impact proxies and indications

- The project put in place a Lake management plan, which was prepared in collaboration with GAFRD. It is only missing an action plan, as the project wanted to ensure a sense of ownership instead of giving them a plan to implement. If implemented, the plan would contribute to the sustainability of fisheries in Aswan.
- Although it is relatively early to assess YEAG's impact, the Evaluation Team could infer indications that point to potential impacts beyond the life of the project. The major factors in this respect can be classified into: (i) qualitative factors, namely the community-level diffusion of the knowledge and skills acquired through the project's capacity-building interventions, which is usually associated with peers tendency to replicate the successful models, and (ii) a quantitative factor, as represented by the multiplier effect of job creation/income generation. The multiplier effect is known to be high in lower income communities, due to their respective higher propensities to consume.
- From the perspective of sustainability, the best results attained by the project's interventions were for WRs and fishers. Specifically, the project resulted in improving their income and living conditions. Results for WRs are addressed in Section 6.5 of the report, while fishers-related results are outlined below.
- The project was useful for fishers, as it offered them work-related products and services, including: solar cells, containers and training on fishing best practices, all of which contributed to improvement of livelihood of fishers. The sustainable benefits of the project for fishers cover the following:
 - Training of trainers (ToT) on fishing and fish handling helped fishers keep fish fresh and resulted in increased catch volume. ToT will help in dissemination of fishing and fish handling practices in a sustainable manner, as trainers were chosen from institutions involved in Lake development/management activities, including:
 - High Dam Lake Development Authority (40%),
 - GAFRD (35%), and
 - Fishermen associations (25%).
 - Fishers learnt how to save on energy, as a result of the solar panels provided by the project. The fact that the Fishermen Welfare Association procured 10 additional solar panels and offered them to fishers on credit reflects the success of the intervention and its relevance to fishers' living conditions. It also indicates that the project created awareness about and cultivated interest in the benefits of solar cells. This, in turn, could generate more demand in the future,



among other fishers who have not benefited from the project interventions. Such demand could be met through the fisheries associations.

- Advocacy training led to empowerment of fishers, as priority issues were identified and a document about fishers' problems was developed, including recommendations. Advocacy also helped in consolidating efforts of the fisheries associations to identify and promote their members rights.
- Although the training that the associations have received under the project – on cooperatives, financial management and advocacy – was considered relevant and useful, they need further training on a range of areas to reach a stage where they can manage the associations effectively in an institutionalized manner, especially that many of them have mid-levels of education.
- Support to fish processing operations has started to bear fruit and it is quite likely that other fish processors in the community will follow the example of those who received technical assistance through the project. The technical knowledge and skills acquired by the project beneficiaries will be diffused throughout the community, supported by demonstration effects.
- Some of the youth who took part in the competition are children of fish processors, so they can be supported by their fathers; and the trained youth could help further develop the business of their fathers.
- Aquaculture is a new activity in Aswan, this affects availability of know how within local communities. Furthermore, experience on getting farm licence in Aswan is limited and MoIWR has demolished some fish ponds which discouraged some farmers from adopting aquaculture. This could have a negative implication for further development of aquaculture in Aswan.

Grading YEAG's Sustainability / Impact Proxies and Indications

Orange



With Problems

Capacity building has not been sufficient to ensure sustainability at institutional level. Results' sustainability may be limited due to lack of comprehensive policy reform. Certain measures taken throughout project implementation are deemed conducive to the targeted positive impact and scalability over the medium term after project completion. Yet, additional measures are needed to guarantee continuity of the overall results.

6.5. Evaluation Criterion (Cross-Cutting): Gender

Necessary interventions and measures taken to enhance the role of women.

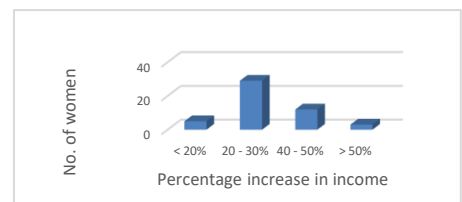
6.5.1. Gender-specific findings

- To retain jobs in fish retailing, 127 WRs were identified and interviewed as part of a needs assessment exercise. Out of these, 97 WRs were trained on several aspects of value adding and post-harvest handling. The training was on cooking (97 WRs), filleting (44 WRs), smoking (16 WRs), and skin leather tanning (19 WRs). In addition, a fish promotion campaign targeted 14 WRs. A cooking competition was organized among 12 WRs and was attended by the Governor and Steering Committee Members. Furthermore, 10 officers from 5 CDAs were trained as trainers to promote VSLA; they further trained 80 WRs on VSLA. As a result, 135 WRs (in six groups) adopted VSLA, distributed loans of LE 9,480 to 21 WRs.



- Although WRs were not represented in the main fish market in Aswan city, the project team managed to communicate with them through CDAs and visit them in their business locations. More than 70 of WRs interviewed during these visits to assess their needs. Many of these women are working from their home. Several workshops and individual visits were conducted to promote gender activities in Aswan. The project held three awareness sessions (in Sayeda Zeinab for community development in New Seil, Improving Health CDA, and Nahr El-Khair in Kom Ombo), where a consultant was brought in to speak to women about the nutritious value of fish. However, the impact of these awareness campaigns was not assessed.
- A major challenge in the implementation of women activities related to the conservative nature of some communities (such as Cobania), hence, the difficulty for some women to go to other locations for receiving training on fish cooking.
- The project was responsive to women's needs. For example, some women reported that the project responded to their request for training on filleting and salting fish. Originally, the project included training on feasibility studies; however, interaction with beneficiaries revealed their need for business management skills and this was incorporated in the project.
- WR reported an increase in average daily sales volume for the three sizes of tilapia after the project intervention (from 1-2 kg to 3 kg or more for small tilapia, and from 0-3 kg to 5-15 kg for medium tilapia and from 0-2 kg to 3 kg or more).
- The survey showed that for 86% WRs who sold salted fish, there was an increase in the daily sales volume. Other women, who did not sell salted fish before, started selling it after the intervention. On average, daily sales volume of salted fish increased from 1.5 kg to 2.5 kg.
- When women were asked about the benefits gained from the services they received under the project, improved working conditions was the most cited benefit, followed by increase in household income, ability to communicate with other women, and access to capital through VSLA. Of the 49 women, out of 71 surveyed women, who indicated an increase in income after the project intervention, almost 60% reported a 20-30% increase. Other benefits mentioned by women included: business management training was very useful, as well as training on new ways of cooking tilapia.
- Many women¹³ indicated that they benefitted from the business management training they have received under the project, as they learned how to separate their personal and business money. Furthermore, it enabled them to calculate how much money they make out of the business. An added benefit of the training for their personal life is manifested by their ability to better manage their household finances. Some beneficiaries reported that the business management training also helped them to conduct market research before launching their business.
- Although all women interviewed indicated that the fish leather tanning training was useful, trainees faced two main challenges in applying what they have learnt. First, the end product was not up to the same standards of the products demonstrated during the training. This was attributed to different size

Figure 3: Percentage increase in income of WR



¹³ This finding came from two focus group discussions with women that comprised 35 and 24 participants.



of fish from what the consultant used in her home country. Second, the chemicals used in tanning were quite expensive and not available. However, one of the trainees succeeded in setting-up her business, and worked persistently to develop leather products of good quality. She developed, in collaboration with others, 'Emkan' trademark to promote their work. They target tourists and try to sell their products through Facebook. However, they still face challenges in relation to licensing of the business, along with the high cost of production inputs.

- Eight per cent of women mentioned they faced challenges related to applying the skills they learnt. When asked to specify the challenges they faced, the most cited challenge was lack of capital to expand their business. Many of the interviewed women said they postponed starting their business until they had saved enough capital to scale up their business.
- An indirect benefit of the project was that other women, who did not attend the training (but have heard about it), asked members of the group to teach them how to debone the fish and make fillets, and started selling fillets.
- Quotes by WRs who participated in the focus-group discussions are included in Annex (10).

6.5.2. Gender-specific conclusions

- Gender mainstreaming was applied in the planning, designing, implementation and reporting on activities of the project.
- The project helped 127 WR retain their jobs by creating new sources of income for these women, and accordingly their households, through training WR on activities that allowed them to increase the value of the products they sell. The VSLA also helped those households increase their savings and access capital to upgrade their economic activities. Training on fish retail activities proved to be complementary to VSLA, as it provided an incentive for saving. Women found that they could benefit from fish training and save for a purpose, which helps them generate income. Hence, VSLA under YEAG represented a good practice that capitalized on the positive results generated through YEP interventions. In this respect, YEP mid-term evaluation report states: "VSLA's accomplishments are evident, it benefits the poor and women in particular It has a high chance of sustainability due its low expenses".
- Women got interested in the project training activities when they realized that they will acquire new skills that would enable them to increase their income. The presence of the gender officer was instrumental in encouraging women to join the project. Also, the assignment of field officers, from the community, to VSLA groups was crucial in mobilizing women and earning their trust.
- The project encountered challenges in identifying women beneficiaries and persuading them to join VSLA. Thus, the VSLA-relevant tasks took time due to the social traditions and norms that limit women's participation and mobility. This effectively meant that WR activities started in May 2018; and as the VSLA cycle is 10 months, extra time was required to complete the cycle. However, as the extension ended in March 2019, the cycle was shortened to 9 months only.
- Interaction among women in VSLA groups and trainings delivered by the project was beneficial. They learned from experience that cooperation is better for them as they could benefit from the diversity of skills in the group and can earn more money. As highlighted in Annex (10), many of them got together and formed businesses. Furthermore, women shared the skills they have acquired through the project



interventions with other women who were not beneficiaries of the project.¹⁴ This points to an indication of sustainability of results beyond the life of the project through diffusion of knowledge and skills.

6.6. Evaluation Criterion (Cross-Cutting): Governance & Management

6.6.1. Findings related to governance & management

- YEAG's Steering Committee had the following membership: SDC, WorldFish, Vice Minister of Agriculture for Livestock, Fisheries and Poultry, GAFRD, Aquatic Union, and Lake Nasser Development Authority. The major objective of the Steering Committee meetings was to review progress of project implementation through presentations and field visits to some sites of YEAG interventions.
- As clearly shown on Annex (11), YEAG had a well-designed organizational chart, along with clearly articulated roles and responsibilities of the project's management and technical staff. These included: country director, project team leader, project manager, fisheries scientists (2), aquaculture specialist, gender officer, finance and administration manager, HR team and communication officer.

6.6.2. Conclusions related to governance & management

- Although the documentation of project events (e.g. training, field visits and workshops) was comprehensive, documentation of management meetings was inadequate.
- Documentation of management meetings was deemed inadequate due to the absence of regular reporting on results of the interventions (i.e. indicators/outputs/outcomes). Focus of the reports is a narrative presentation of the activities. This issue was also pointed out in YEP mid-term evaluation, which states: "The reports ... hardly support management in decision making as the linkage between the activities and the output level indicators has not been adequately filled in." However, it was not addressed in YEAG project.

6.7. Evaluation Criterion (Cross-Cutting): M&E

6.7.1. Findings related to M&E

- According to the project documents provided by WorldFish, the M&E put in place was the M&E Indicators Matrix. Detailed information on project activities and outputs was sent regularly by the project manager to WorldFish, which was then used to fill in the matrix.
- At the end of the project, WorldFish reported that project outputs were as per the figures provided in Annex (8). This was substantiated by AAA Evaluation Team from review of project documents (including databases of beneficiaries, reports on activities, and papers). Figures for jobs created and increase in profits in relation to aquaculture activities were compiled by the Evaluation Team through survey.
- According to WorldFish, throughout the project figures for job creation and increase in profit were calculated based on a paper prepared by WorldFish titled "Employment Generation in the Egyptian Aquaculture Value Chain: implications for meeting the Sustainable Development Goals (SDGs)," rather than actual counting of the number of jobs or realized profit. They explained that they envisaged

¹⁴ This was reported by women in focus group discussions undertaken by the Evaluation Team.



conducting a "comprehensive external impact assessment" at the end of the project which will measure the jobs created and realized profits.

6.7.2. Conclusions related to M&E

- While the M&E matrix was linked to the outputs and outcomes of the logical framework, there was no evidence in the project documents pertaining to how the outcomes related to job creation/retention and profit increase will be measured and monitored throughout the project¹⁵. The approach adopted for YEAG's M&E tasks demonstrate continuity of the major shortcoming throughout YEP implementation, which was pinpointed by the project's mid-term evaluation report as follows: "..... the information available in the M&E system mainly focuses on activities, while the process is not described. The reports to date hardly supports management in decision making as the linkage between the activities and the output level indicators has not been adequately filled in".
- The absence of targets in the matrix points to the absence of an effective monitoring system put in place to make sure that project objectives are achieved at the end of the project and corrective measures are taken throughout the project duration as necessary.
- The Evaluation Team can identify two problems with WorldFish's approach in accounting for jobs created:
 - It is the function of the monitoring system of the project to measure the jobs created during implementation of the project in order to take corrective measures as necessary.
 - If measurement of jobs creation was intended at the end of the project, a comprehensive baseline study should have been conducted at the outset of the project in order to be able to benchmark the project results at the project end.

6.8. Evaluation Criterion (Cross-Cutting): Communication

6.8.1. Communication-specific findings

- The project generated several key messages, including the indication of significant potential for improving the efficiency of fisheries and fish processors in Aswan, along with publishing and dissemination of research reports and journal articles. The WorldFish communications team has supported the production of regular project reports, web-based news articles and blogs. On the other hand, WorldFish scientists, led by the project leader and supported by headquarters-based scientists, undertook to ensure a regular flow of peer-reviewed publications from the project.¹⁶
- When asked about the organization funding the project activities, some categories of targeted beneficiaries (e.g. fishers) were unable to name SDC.

¹⁵ This limitation was also identified in YEP mid-term evaluation: "...reporting on job creation is not quite accurate.. It is essential to have clear criteria for counting jobs... Also, the project had problems reporting on income increase and the evaluation team believes that one reason is lack of follow-up, for example, recipients of training on best practices were not monitored to know whether they adopted these practices or not and how it affected their income."

¹⁶ Annex (12) provides a listing of the communication channels and products throughout the project's life.



6.8.2. Communication-specific conclusion

- YEAG implemented an effective/cascading communication strategy, which was adequately based on regular recording and documentation of the achievements, events and publications, along with an appropriate mix of communication and dissemination channels.
- However, not all categories of targeted beneficiaries were cognizant of SDC as the contributor of project activities.

6.9. Lessons Learnt

6.9.1. Lessons Learnt / Recommendations

- The Evaluation Team drew the following lessons learnt and recommendations which are classified by category of stakeholder.**Donor:**
 - The donor needs to be critical in examining targets proposed by implementing organization and ensure they are based on clear, objective criteria.
 - The donor ought to make sure that a robust M&E reporting system is developed by the implementing organization at an early stage of the implementation. This system should include an M&E Matrix with SMART indicators (Specific, Measureable, Achievable, Relevant, and Time-bound) and targets (in line with the proposed project logframe). As part of this system, financial reporting guidelines should emphasize classification of expenditure by major and sub interventions to allow assessment of efficiency.
 - Future interventions in fisheries and aquaculture sector need to focus on processing and transportation, due to the high potential of these activities and the benefits they are expected to generate for fishers and fish farmers. The following interventions were suggested by stakeholders:
 - Support investor(s) in establishing a fish processing facility, as a prototype. Ownership could be transferred to the investor(s) after paying back all funds received.
 - Provide technical assistance to fish processors to export, by means of supporting them in obtaining the required approvals, as well as setting-up technical conditions for the premises, in order to comply with the quality standards of the importing countries. Technical assistance could also be provided in the area of marketing and packaging.
 - Offer training on salting and drying fish as they are relevant in Aswan and they could generate employment opportunities for youth.
 - Marketing was identified by several stakeholders as an area where beneficiaries (WR and fish processors) require training and support to open new channels for them to sell their products.
 - Future interventions for WR could include extending financial assistance – in addition to VSLA component – to support their enterprising aspirations for expansion based on the acquired technical skills.



- A possibility for future youth related intervention is to send youth on a study tour to other countries to learn about processing and support them upon their return in implementing what they would they have learnt in the study tour.
- Youth suggested providing support scientific research involving youth to enable them to develop their skills.
- Improving or supporting access of fishers to conducive technologies such as solar panels or processing and storage units.
- Fishers suggested establishing a health care unit close to Lake Nasser to provide first aid to fishers in case of emergency.

- **Implementing organization:**

- Project objectives need to be realistic given the local context (for example, the target for fish farms was too ambitious in light of the existing regulatory framework, which is not favorable to use of fresh water in aquaculture). Such risks should be given due consideration in the design stage, and targets should be set based on clear, objective criteria, which needs to be benchmarked against similar projects.
- When designing interventions, it is important to take into consideration the time needed to achieve desired results and/or maximize the return for beneficiaries (e.g. processing operations, promoting entrepreneurship, VSLA programs).
- It is essential to establish a baseline, at the beginning of the project, against which to measure accurately end of project achievements.
- The project should include a complete, adequate M&E system, with staffing. The system shall include relevant indicators, with baselines and SMART targets.
- Engaging with partners (e.g. Improving Health Association, Bait El-Khair Association) is crucial for women-related activities, not only to identify potential beneficiaries and but also in conservative social contexts. Men trust the CDA and do not object to women going there, as it also provides other services.
- Training activities need to be tested, as a pilot by the implementing organization, prior to delivery, in order to ensure application and sustainability of the activity after the training.
- As evidenced by the positive feedback of beneficiaries, training is recommended to comprise components related to an economic/technical activity (e.g. smoking or cooking), as well as a business-related component (e.g. entrepreneurship, marketing, business planning), as was the case in YEAG project, in order to maximize the return for the beneficiaries.
- To maximize the benefit for beneficiaries, it is recommended to combine VSLA training with training on a specific craft or trade, as well as training on general skills, notably: good saving habits; feasibility studies; and business management.
- Spreading aquaculture activities in new locations requires action in three areas:
 - Raising the awareness of potential farmers about the benefits, compared to costs;
 - Demonstrating successful models to the farmers;



- Establishing an aquaculture association after reaching a reasonable number of fish farmers.

- **Policy makers:**

- GAFRD needs to follow on the implementation of the Lake Management Plan (including development and implementation of the action plan) in order to ensure sustainability of fisheries.
- Amend the current regulatory framework which prevents the use of fresh water for aquaculture purposes.
- It is important to establish a fish market in Aswan in order to maximize the return for fishers.

6.10. Overall Conclusion

Table 4 below provides a summary of the evaluation questions and the results based on the foregoing analysis:

Table 4: Evaluation questions and results

Evaluation Criterion	Evaluation Question	Results
Relevance	EQ.2: Does the Theory of Change (ToC) still stand? Has it been adapted? If so, why and how?	The project was and remains relevant for the Egyptian context and the Swiss Cooperation Strategy. The general Theory of Change of the YEAG project still stands, and was not adapted over the course of implementation.
Efficiency	EQ 3: Was the project efficient in implementation, concerning input vs. outputs? Were there major deviations from the original budget?	Cost-efficiency of some outputs could not be assessed due to the absence of cost-coefficient per output in financial reporting of the project. Delays and underachievement of some interventions/results point to design issues in setting realistic quantitative targets based on the local context and the duration of the project. The three-month extension allowed for the achievement of delayed targets. End-of-project financial data indicates a 17% under-spending of the project budget, which reflects varying levels of deviations at the individual line items of expenditure.
	EQ 4: How were the project's partners involved in the interventions?	The project's partners were adequately involved and had reasonably contributed to the project's interventions, though constrained by regulatory, financial and somewhat socio-economic limitations.
Effectiveness	EQ 1: What are the concrete results of the project and its outreach vis-à-vis the project indicators?	The jobs created/retained due to project interventions largely met the targets as per the project logframe. Furthermore, the increase in net profits for processors, women and fish farmers exceeded the targets. The project also managed to meet the target of increasing shelf life of fish to 5.3 days. At the policy level, the project achieved its objective of establishing an 'inclusive (pro-poor aquaculture policy framework in Aswan' and 'developing and promoting policy recommendations for long-term sustainability of Lake Nasser fishery activities'.



Evaluation Criterion	Evaluation Question	Results
	<p>EQ 6: What is the degree of achievement of the planned objectives vs. the achieved?</p>	<p>In general, the project managed to achieve (and in some cases even overachieve) most of its targets in terms of job creation/retention and increase in net profits despite some deviations due to contextual constraints that were not given due consideration in the design of the interventions. However, the materialization of a number of assessed risks during the design phase and the insufficiency of mitigation measures, resulted in some delays in implementation and underachievement of results.</p>
<p>Sustainability/ Impact Indications</p>	<p>EQ 5: What are the direct and indirect, positive and negative effects of the project on the beneficiaries (individuals and institutions)?</p>	<p>Although it is relatively early to assess YEAG’s impact, the Evaluation Team could infer indications of contribution to impact of improved nutrition for poor Egyptian households (indicated by increased consumption of farmed fish), and increased economic opportunities (indicated by increase in profits of fishers, processors and women retailers). Furthermore, these impacts are likely to be sustained through demonstration effect by copying successful models in the community – e.g. fishers, WR and processors, and multiplier effect as a result of jobs created/retained and increased profits of the project beyond life of the project. The project resulted in improving living conditions of fishers (through BMP training and provision of 50 solar cells which save on fossil fuel and are environment friendly compared to generators) and women (through various trainings offered). Fish farmers reported better agricultural crop quality (because of nutrients available from pond water due to fish waste). The project put in place a Lake Management Plan, which was prepared in collaboration with GAFRD. If implemented, the plan would contribute to the sustainability of fisheries. Capacity building at institutional level has not been sufficient to ensure sustainability, as associations need further training on a range of areas to reach a stage where they can manage the associations effectively in an institutionalized manner. Despite the positive change at the regulatory level, manifested in GAFRD’s issue of a decree supporting integrated aqua-agriculture at the national level, lack of comprehensive legislative reform removing the ban on use of fresh water for aquaculture purposes could have a negative implication for uptake of aquaculture in Aswan.</p>
<p>Cross-cutting: Gender</p>	<p>EQ 7: What were the effects of the project about the reduction of inequality between men and women?</p>	<p>The project helped reduce inequality between men and women by creating new sources of income for women through training retailers on activities that allowed them to increase the value of the products they sell, as well as increase their savings (which enabled some of them to upscale their businesses) through VSLA.</p>
<p>Cross-cutting: Governance, M&E/RBM and Communication</p>	<p>EQ 8: Effects of the project on transversal themes such as governance, M&E, and RBM</p>	<p>The project did not have adequate M&E system or reporting, which was done according to narrative of activities rather than based on results of the interventions (outputs/outcomes) as per the logframe. This does not support management in decision</p>

Evaluation Criterion	Evaluation Question	Results
		making, neither does it ensure achievement of targets and taking corrective action in case of deviation. These problems were also a feature of YEP project, as indicated in the mid-term evaluation, pointing to the lack of institutional lesson learning across projects.
Lessons Learnt	EQ 9: What are the main lessons learnt from the project with regards to its relevance, approach, innovation, partnerships and communication?	<ul style="list-style-type: none"> • Project objectives need to be realistic given the local context and the duration of the project. Risks identified in risk assessment should be given due consideration in the design stage, and targets should be set accordingly based on clear, objective criteria. • A baseline needs to be established at the beginning of the project against which to measure accurately end of project achievements. • An adequate M&E reporting system (with SMART indicators and targets) needs to be put in place at an early stage of the implementation. As part of this system, financial reporting guidelines should emphasize classification of expenditure by major and sub interventions to allow assessment of efficiency. • Engaging with partners is crucial for women-related activities especially in conservative local communities. • As evidenced by the positive feedback of beneficiaries, training is recommended to comprise components related to an economic/technical activity (e.g. smoking or cooking), as well as a business-related component (e.g. entrepreneurship, marketing, business planning), in order to maximize the benefit for the beneficiaries.

7. Organization and Timing of the Evaluation

7.1. Evaluation Governance

The design and implementation of this evaluation was based on clearly defined roles and responsibilities of the Evaluation Team members – as shown in Table 5 below. In addition, quality assurance of the inception and draft evaluation reports was regularly conducted throughout the evaluation tasks. Triangulation of secondary and primary data and information was consistently performed. All observed discrepancies were recorded and substantiated, as appropriate.

Table 5: Evaluation Team's roles and responsibilities

Expert	Roles & Responsibilities
Maggie Kamel Team Leader/M&E Consultant	<ul style="list-style-type: none"> - Consult with WorldFish throughout all phases of the project - Coordinate between AAA Team members and WorldFish - Make sure that deliverables are submitted are of excellent quality - Submit deliverables in accordance with plan - Review project documentation



Expert	Roles & Responsibilities
	<ul style="list-style-type: none"> - Contribute to design of evaluation methodology - Contribute to Inception Report - Contribute to Evaluation Report - Quality assurance of Evaluation Report - Conduct interviews with key informants and focus groups - Oversee administration of surveys - Present findings to the client
Soheir El-Sherif Senior M&E Expert	<ul style="list-style-type: none"> - Review project documentation - Design evaluation methodology - Draft Inception Report - Draft the Evaluation Report - Present findings to the client - Incorporate comments in the final report
Ali Rashed Statistician	<ul style="list-style-type: none"> - Provide input on sampling and questionnaire design - Analyze data collected from survey
Sallam Mohamed Esraa Hussein Field Researchers	<ul style="list-style-type: none"> - Collect data from beneficiaries through surveys - Take notes in focus group discussions and interviews
Ahmed Abdel Hamid Data Expert	<ul style="list-style-type: none"> - Prepare the CSPRO tools - Clean data - Export data to STATA and Excel

7.2. Quality Assurance

Throughout the evaluation process, and in addition to the data management tasks outlined in Annex (3), the following elements of the evaluation quality standards were taken into consideration, during the desk review, field work and reporting:

- From an ethical perspective:
 - There has always been sensitivity and integrity towards the issues related to: gender, beliefs, manners and customs of all stakeholders.
 - Anonymity and confidentiality of individual informants were protected when requested.
 - The Evaluation Team members have consistently dissociated themselves from subjective judgments and recommendations.
- Findings and conclusions are clearly identified and flow logically from the analysis of the data and information. Underlying assumptions are made explicit and taken into account.
- Any discrepancies between the planned and actual implementation of the parameters/variables being evaluated are explained.
- Recommendations and lessons learned are relevant, targeted to the intended users and actionable within the responsibilities of the users. Lessons learnt are generalization of conclusions applicable for wider use, and recommendations are actionable proposals.
- The evaluation presents conclusions, recommendations and lessons learnt separately and with a clear logical distinction between them.



7.3. Evaluation Timeline

The timeline of the evaluation is presented in the Table 6 below.

Table 6: Evaluation timeline

Milestones & Deliverables	Timeline
Kick off meeting	11 Mar
Mission to Aswan	17-22 Mar
Submission of draft Inception Report	24 Mar
Submission of draft questionnaires	24 Mar
Submission of amended questionnaires	30 Mar
Submission of questionnaires in Arabic	1 Apr
Submission of Inception Report after incorporating WorldFish comments	3 Apr
Administration of surveys	11-16 Apr
Submission of Draft Evaluation Report	2 May

7.4. Deliverables and Dissemination Plan

It is presumed that the Evaluation Report will be subject to follow-up by the project's sponsoring agencies. In this relation, presumptions include: systematic dissemination, storage and management of the evaluation results. The aim of this effort is to ensure easy accessibility, as well as optimize utilization of the evaluation's findings, conclusions, lessons learnt and recommendations in similar future interventions.



Annexes

Annex (1) – ToR for End-term YEAG Evaluation

Request for proposal

End-term project result assessment and evaluation of the YEAG project

Organization Background

WorldFish is one of the centres of the Consultative Group for International Agricultural Research (CGIAR) sponsored by the World Bank. The WorldFish mission is to **strengthen livelihoods and enhance food and nutrition security by improving fisheries and aquaculture**. We pursue this through research partnerships focused on helping those who stand to benefit the most—poor producers and consumers, women and children. We deliver evidence-based solutions to address the complex challenges and opportunities in fish food systems.

Project Background

The Youth Employment in Aswan Governorate; Extension of fisheries and aquaculture interventions (YEAG) project is a eighteen month intervention led by WorldFish and supported by the Swiss Agency for Development and Cooperation (SDC). The project aim is to improve nutrition of and economic opportunities for poor Egyptians resulting from sustainable expansion and management of the aquaculture and fisheries sectors in Aswan. The project commenced in July 2017 and is now approaching closure, which provides an opportunity for a review/evaluation.

Project interventions are focused on following outcome areas:

- Test and promote pond aquaculture systems in Aswan
- Aquaculture Best Management Practices adapted for application in Aswan aquaculture systems (integrated agriculture-aquaculture, cage-based aquaculture in irrigation canals, longer growing season than in the Nile delta)
- Produce Stakeholder Manuals and video messaging for dissemination to literate and illiterate beneficiaries. These campaigns will outline success stories and opportunities of integrated agriculture-aquaculture in Aswan
- Program Brief on scaling up YEAG aquaculture development models to Upper Egypt

The project log frame is shown in annex 1.

Purpose and Objectives

WF is issuing a Request for Proposal (RFP) to solicit competitive bids to establish a contract with a reputable, qualified, and competent service provider/consultant to design and carry out the final assessment for the YEAG project. The consultant will be thus in charge to identify and assess the results achieved by WorldFish and partners during the project life at outcome and output levels. The assessment has an additional purpose of drawing lessons and developing recommendations for WorldFish, the Donor and the project stakeholders



and partners that may help improving the selection, enhancing the design and implementation of similar future projects and activities in the country.

Specifically the consultancy is to:

- i. Conduct a robust evaluation of the project outputs and outcomes while making reference to renowned evaluation criteria, including but not limited to the DAC criteria.
- ii. Generate sufficiently disaggregated data to inform progress made with respect to youths and women as envisaged in the project targets, guided by project logical framework indicators
- iii. Identify lessons learned and related good practices useful for future initiatives. In this light we expect the report making reference to specific good practices.
- iv. Based on the findings and conclusions we expect to identify the relevant implications and lessons learned related to the policy dialogue.

Evaluation Methodology

The study will employ a mixed methods approach to establish the project indicator values, context to the results and their implications. The consultant(s) shall demonstrate clear complementarity between/amongst the mixed methods of choice. The consultant(s) will use different approaches, comprising of primary data collection and secondary data/literature review. The consultant(s) should embrace participatory methods and ensure active involvement of all project stakeholders. The successful bidder will refine the methodology in consultation with WorldFish and SDC.

Scope of work

The work will entail the review project documents and reports in Cairo and field-based study in Aswan. The study shall cover fish farmers, retailers, processors and fishers in Aswan. The study shall further include key Lake Nasser fisheries value chain actors and stakeholders.

The Study team

Applicants are required to identify and provide resumes of the study team, clearly specifying the proposed allocation of roles and responsibilities. The key qualifications required for the lead consultant include at least a Masters' degree in agricultural economics, aquaculture, or program management and evaluation. The proposed evaluation consultant(s) should comprise a mix of technical expertise with regards to:

- Experience conducting project impact evaluations.
- Experience implementing similar research studies in Egypt or other North African country in the fisheries, aquaculture or agriculture sectors.
- Experience developing and implementing mixed-methods research designs.
- Strong data management and analysis, with an inclination towards mobile data collection and processing, and robust data quality monitoring.
- Demonstrable experience managing evaluation projects within limited budgets and on time.
- Fluency in written and spoken English language is essential. Knowledge of Arabic is desirable
- Demonstrated understanding of the ethical considerations involved in conducting research on human subjects.



- Develop feasible recommendations to support a diverse group of stakeholders.

Consultant(s) selection will be done by consultation between WorldFish and SDC/OIC and will be assessed on both the technical and financial aspects.

Role and responsibility of the project team

WorldFish will have the responsibility of availing all the pertinent documents and materials including project databases and unpublished reports and logistical support deemed necessary, in the coordination of the exercise (to be agreed upon during inception and planning meetings).

Timeline and deliverables

The timeline and the associated deliverables are indicated below:

Activity	Deliverable(s)	Due date
Submission of proposals	Technical & financial proposals	25 th February 2019
Evaluation of submitted bids	Award of work to the best evaluated bidder	28 th February 2019
Commissioning of the evaluation	Inception meeting	6 th March 2019
Rollout of the study	Inception report	12 th March 2019
Consultation with stakeholders on preliminary findings	Draft report Presentations to WF and SDC/OIC	4 th April 2019
Closure of the evaluation assignment and presentation of final	Final report	15 th April 2019

Report structure and outline

The final deliverable of this assignment is a validated report in pdf and word format, with an executive summary (maximum 1 page), to be submitted by April 1, 2019.

The report should be:

- Pages: 25-30 pages
- Language: English
- Margins: right and left - 2 cm each
- Line spacing: 1
- Font and font size: Arial or Calibri, 11.

Further information about both the layout and the structure of the report will be discussed with the successful bidder.

The report shall touch upon the following questions:



- What are the concert results of the project and its outreach vis a vis the project indicators?
- Does the theory of changes still stand? Has it been adapted, if so why and how?
- Was the project efficient in implementation concerning input vs outputs, were there major deviation from the original budget?
- How were project partners involved in the project?
- What are the direct and indirect, positive and negative effects of the project on the beneficiaries (individuals and institutions)?
- What is the degree of achievement of the planned objectives vs. the achieved?
- What were the effects of the project about the reduction of inequality between men and women?
- What were the effects of the project on transversal themes such as governance, M&E, and RBM?
- What are the main lessons learnt from the project with regards to its relevance, approach, innovation, partnerships and communication?

Submission

Interested consultants should submit technical and financial proposals by email to: worldfish-egypt@cgiar.org and i.bikara@cgiar.org. Kindly mention in the subject line project name as (YEAG Evaluation proposal).



Annex (2) – Evaluation Criteria and Sub-criteria

Elements covered by the evaluation criteria are outlined as follows:

- **Relevance:**

- (a) did the project respond to the needs of the target groups?
- (b) were there any issues of integration with other ongoing/planned projects or programs managed by donors that needed to be addressed?
- (c) have changed circumstances been taken into account by updating the project's logical framework?
- (d) is there evidence that the YEAG's interventions support the implementation or the development of the Egyptian local partners' policy/actions?

- **Efficiency:**

- (a) were the chosen implementation mechanisms (including choice of implementation modalities, entities and contractual arrangements) conducive to achieving the expected results?
- (b) did YEAG's local partners/stakeholders effectively lead in the planning of the action beyond formal endorsement?
- (c) have the outputs been produced/delivered in a cost-efficient manner?

Within the Efficiency criterion, YEAG's *inputs* and *delays* were also addressed through the following sets of sub-questions:

- **Inputs:**

- (i) do the resources correspond to the needs of the interventions?
- (ii) did local stakeholders provide the inputs (human or physical) that would be required to enable the action to be cost-efficient?
- (iii) to what degree were the resources (inputs) available on time from the different stakeholders?
- (iv) if there were delays, how significant were they?
- (v) have the reasons been identified?
- (vi) have the revisions of planning been properly implemented?

- **Effectiveness:**

- (a) have the interventions been adequate vis-à-vis the capacity of the stakeholders/local partners?
- (b) has the expected progress in terms of YEAG's *outputs* been properly achieved?
- (c) is the quality of outputs satisfactory?
- (d) did the outputs adequately lead to the expected outcomes?

Within the Effectiveness criterion, YEAG's *performance indicators* (as included in the M&E plan) were also addressed through the following sets of sub-questions:

- (i) are the indicators well defined and relevant to measure the achievement of YEAG's objectives?



- (ii) were all related data available?
- (iii) were baselines set and updated for each indicator?
- (iv) were targets' values set? were they realistic, and/or did they need to be updated?
- (v) did the project strengthen financial management of enterprises by increasing their level of profitability?

- **Sustainability / impact proxies and indications:**

- (a) if there is a financial contribution needed for continued access to the benefits of YEAG project, can target groups afford such types of contribution?
- (b) have community-based bodies taken the necessary financial measures to ensure the continuation of services after the end of YEAG project?
- (c) do all key stakeholders still demonstrate effective commitment (ownership)?
- (d) is there an effective government-led system of sector coordination involving YEAG's local stakeholders and donors? is an adequate level of human and institutional capacity in place, in order to continue delivering benefits of the types generated under YEAG project?

- **Cross-cutting issues:**

- (a) have the necessary measures been taken to enhance the role of women?
- (b) have the communication and visibility of YEAG's interventions been implemented in an appropriate manner (in terms of timeliness and suitability for target audience - both in content & platform)?
- (c) are there good practices inherent in YEAG interventions which could be useful to share beyond the project context?



Annex (3) – Criteria Used to Ensure Quality Assurance of the Evaluation Report

A) Data Quality Considerations

In conducting this evaluation, AAA Team adhered to the policies and practices related to data quality assurance. To this end, elements of data quality considered include:

- **Validity:** Ensure that data clearly and adequately represent the intended result. Relevant issues considered are: (a) face validity; (b) attribution; and (c) measurement error (both sampling and non-sampling error are reviewed).
- **Integrity:** Established mechanisms are in place to reduce manipulation or simple errors in transcription.
- **Precision:** Data collected are ensured to allow a fair evaluation of performance and so, enable decision-making at the level of the program/project under evaluation.
- **Reliability:** Stable and consistent data collection processes and analysis methods are used over time.
- **Timeliness:** Data is ensured to be timely enough, in order to support the decision-making processes at the different levels of the agencies involved (funding agencies, implementing partners and local counterparts).

B) Data Storage, Security and Sharing

AAA adopts a comprehensive internal data security policy that follows best practices. A two-step verification process is adopted for all data storage tasks. Our passwords are changed at regular intervals, and all mobile devices are password protected. We use encrypted drives and Dropbox to transmit confidential data.

In this evaluation assignment, issues related to the quality, storage and security of data were identified and resolved, as related to: (i) data sources; (ii) data collection; and (iii) data collation. Relevant issues and measures adopted for each of these areas are outlined below:

B.1. Data Sources

Issues

- Poor recording of the data: Incomplete information, illegible notes, etc.
- Data could be incomplete (e.g. incomplete physician notes).
- Inconsistent recording of information by different staff.
- Data are not available or feasible to collect.



Measures adopted

- Design instruments carefully and correctly.
- Include data providers and data processors in decisions to establish what is feasible to collect, review, and process, and how to draft instruments.
- Develop detailed instructions for data collection process.
- Ensure all personnel are trained in their assigned task.

B.2. Data Collection

Issues

- Different instruments used to collect the same data.
- Data entered incorrectly or in wrong fields in a database.
- Inconsistent entries of data by different data capturers.

Measures adopted

- Develop specific instructions for data collection and routinely check to see if they are followed.
- Identify procedures for making changes (if necessary) to the data collection process, as well as for reporting problems during data collection.
- Develop standard operating procedures for the collection and management of data, as well as for revising collection tools and reporting problems.

B.3 Data Collation

Issues

- Data inconsistently collated.
- Data entry errors or other errors associated with manual collation,
- Formulae errors.
- Problematic sampling or estimations.
- No verification or other quality control mechanisms.
- Data not kept secure.

Measures adopted

- Conduct reviews during entry process.
- Create an electronic or manual collation tool that includes a data review process by a second individual who is not entering the data.
- Randomly sample data and verify.
 - Ensure problems are reported and documented, corrected and communicated, and tracked back to the source.



C) Ethical, Regulatory and Legal Considerations

AAA recognizes that sensitive data is often needed to provide effective evaluation services. Therefore, AAA follows practices for ensuring confidentiality and privacy of all information. To this end, AAA takes multiple steps to ensure that confidentiality is maintained throughout the evaluation and have protocols in place to protect data that has been collected. Personally-identifiable information is stored separately from program data, and five years after the program ends, all data are permanently destroyed. We use password protection and encryption when appropriate. Data is only used for purposes of the evaluation.



Annex (4) – Data Collection Tools

The Evaluation will use the following data collection tools:

- **Observation:** AAA Team will use Aswan trip to observe beneficiaries in VSLA closing ceremonies (on 18-19 March) and training of youth on aquaculture (on 20-21 March).
- **Interviews/focus group discussions:** In-depth interviews, including both individual interviews and group interviews (including focus groups), will be used with the following project stakeholders: SDC, WorldFish, project staff, beneficiaries (namely, fish farmers, WRs, fish processors, youth and fishermen associations). Interviews will help provide insights about the perception of beneficiaries of the project interventions and what worked and what could be improved in future interventions. They will also shed light on challenges faced during implementation and how they were addressed to improve design and implementation of similar future projects at strategic and operational level. The data from interviews will be captured by written notes which will be recorded by field researchers who will support the Team Leader in Aswan trip.
- **Surveys:** They will be used for two groups of beneficiaries (namely, fishers and WRs) to assess their perceptions about interventions provided by the project and how they precipitated a change in their behaviors.

Based on evaluation questions presented in the evaluation methodology section of this report, the following guide questions will be used for interviews with the respective stakeholders.

A) WorldFish

- Provide a brief about the project (including background about project design and context).
 - How was M&E for the project managed (i.e. do you have indicators matrix, did you produce periodic monitoring reports?)
 - From your point of view, what positive and negative results did the project have?
 - From your point of view, what were the limitations of the project (in terms of design, implementation and results)? How could the project have been designed or implemented better?
 - Has the project benefitted from previous interventions (in terms of design, implementation or monitoring and evaluation)? If yes, how? If no, why not?
 - From your point of view, what are the lessons learnt that you could draw from the project to be replicated or avoided in similar future projects?
- برجاء إعطاء نبذة صغيرة عن المشروع (بما في ذلك خلفية حول تصميم وسياق المشروع).
- كيف تمت إدارة منظومة المتابعة والتقييم الخاصة بالمشروع (هل هناك مصفوفة مؤشرات، هل يتم تقديم تقارير متابعة دورية؟)
- من وجهة نظرك – ما هي النتائج الإيجابية والسلبية للمشروع؟
- من وجهة نظرك – ما هي أوجه قصور المشروع (فيما يتعلق بالتصميم والتنفيذ والنتائج)؟ كيف كان يمكن تصميم أو تنفيذ المشروع بشكل أفضل؟
- من هل استفاد المشروع من تدخلات سابقة (فيما يتعلق بالتصميم والتنفيذ أو المتابعة والتقييم)؟ إذا كانت الإجابة نعم – كيف؟ وإذا كانت الإجابة لا – فلماذا؟



- من وجهة نظرك – ما هي الدروس المستفادة التي يمكن استخلاصها من المشروع سواء لإعادة تنفيذها أو تجنبها في مشروعات مماثلة في المستقبل؟

B) SDC

- How does the project fit in with SDC's other projects and work of other donors in this area?
- From your point of view, what are the key lessons learnt from this project for future projects?
- Are there any other questions that you would like the evaluation to examine other than the ones identified in the ToR?

C) Project Manager / Project staff

- Provide a brief overview of the project (e.g. objectives, beneficiaries, activities).
- How were the beneficiaries selected?
- What were the challenges faced in implementation?
- From your point of view, what positive and negative results did the project have?
- From your point of view what were the limitations of the project (in terms of design, implementation and results)?
- How was M&E for the project managed (i.e. did you produce periodic monitoring reports? Possibly more to explore around the M&E staffing/ToRs of those with M&E responsibilities, institutional arrangements for M&E, support & mentoring in M&E, Information systems used to collect & transmit data, timeliness, utility of the routine reporting for continuous project improvement, M&E initiatives for quality data, linkages between M&E & project communications to ensure communication of achievements etc.)
- To what extent has the project achieved its overall objective in terms of improved food and nutrition security of and economic opportunities for the poor resulting from sustainable expansion and intensification of the aquaculture sector in Aswan? Are these results sustainable?
- To what extent has project communication been effective in changing attitudes and behavior of targeted audience (regarding nutrition, policy towards aquaculture and sustainability of fisheries, contribution of fisheries to job creation)?
- To what extent has the project contributed to gender equity/environmental sustainability?
- Are there any success stories from the project that you can share?
- From your point of view, what are the lessons learnt that you could draw from the project to be replicated or avoided in similar future projects?

- برجاء إعطاء نبذة صغيرة عن المشروع (بما في ذلك الأهداف، المستفيدين، الأنشطة).
- كيف تم اختيار المستفيدين؟
- ما هي التحديات التي تم مواجهتها أثناء التنفيذ؟
- من وجهة نظرك – ما هي النتائج الإيجابية والسلبية للمشروع؟
- من وجهة نظرك – ما هي أوجه قصور المشروع (فيما يتعلق بالتصميم والتنفيذ والنتائج)؟
- كيف تمت إدارة منظومة المتابعة والتقييم الخاصة بالمشروع (هل كنتم تقدمون تقارير متابعة دورية)؟



- إلى أي مدى حقق المشروع أهدافه فيما يتعلق بتحسين الأمن الغذائي والتغذية والفرص الاقتصادية بالنسبة للفقراء الناتجة عن التوسع المستدام وتكثيف قطاع الاستزراع السمكي في أسوان؟ هل هذه النتائج مستدامة؟
- إلى أي مدى كانت أنشطة الإعلام فعالة في تغيير اتجاهات وسلوك المستهدفين (فيما يتعلق بالتغذية وسياسة الدولة تجاه الاستزراع السمكي واستدامة المصايد ومساهمة المصايد في خلق فرص عمل)؟
- إلى أي مدى ساهم المشروع في المساواة بين الجنسين والاستدامة البيئية؟
- هل هناك قصص نجاح من المشروع يمكن مشاركتها؟
- من وجهة نظرك – ما هي الدروس المستفادة التي يمكن استخلاصها من المشروع سواء لإعادة تنفيذها أو تجنبها في مشروعات مماثلة في المستقبل؟

D) Government stakeholders (Lake Nasser, GAFRD, Governorate, Aquatic Police, cooperatives)

- How does the project fit in with the government's on-going plans in this area?
- To what extent have the project activities contributed to achievement of government objectives?
- From your point of view, what positive and negative results did the project have?
- From your point of view what were the limitations of the project (in terms of design, implementation and results)?
- How can the government build on the achievements of the project? Have any steps been taken in this direction?
- كيف يتوافق المشروع مع خطط الحكومة الحالية في هذا المجال؟
- إلى أي مدى ساهمت أنشطة المشروع في تحقيق أهداف الحكومة؟
- من وجهة نظرك – ما هي النتائج الإيجابية والسلبية للمشروع؟
- من وجهة نظرك – ما هي أوجه قصور المشروع (فيما يتعلق بالتصميم والتنفيذ والنتائج)؟
- كيف يمكن للحكومة أن تبني على الإنجازات المتحققة في المشروع؟ هل هناك أي خطوات تم اتخاذها في هذا الاتجاه؟

E) Beneficiaries

E.1. Fishers

- How did you become a beneficiary of the project?
- What has the project offered you in terms of assistance?
- What were the benefits you have realized from being a beneficiary of the project (for you professionally and your household and the community at large)? In other words, has the project affected your livelihood and/work? If yes, in what way? In particular:
 - What is the volume of fish you catch (before and after the training)?
 - What was the average selling price for fish you catch (before and after the training)?
- From your point of view what were the project limitations? Have any steps been taken during implementation to address those limitations?
- What other technical assistance you think future interventions could provide to build on the realized benefits for you?



- كيف أصبحت مستفيد من المشروع؟
- ماذا قدم لك المشروع من دعم؟
- ما هي النتائج التي تحققت لك من خلال كونك مستفيد من المشروع (على مستوى عملك أو أسرته أو المجتمع)؟ بعبارة أخرى هل أثر المشروع على معيشتك أو عملك؟ إذا كانت الإجابة نعم – كيف؟ بالأخص:
 - ما هي كمية السمك التي تصطادها (قبل وبعد التدريب)؟
 - ما هو متوسط سعر بيع السمك الذي تصطاده (قبل وبعد التدريب)؟
- من وجهة نظرك – ما هي أوجه قصور المشروع (فيما يتعلق بالتصميم والتنفيذ والنتائج)؟ هل تم اتخاذ أي خطوات لمعالجة أوجه القصور تلك أثناء تنفيذ المشروع؟
- في رأيك ما هي سبل الدعم الفني التي يمكن أن تنفذها مشروعات أخرى في المستقبل للبناء على المنافع التي تحققت لك من خلال المشروع؟

E.2. Fish farmers:

- What has the project offered you in terms of assistance?
- What were the benefits you have realized from being a beneficiary of the project (for you professionally and your household and the community at large)? In other words, has the project affected your livelihood and/work? If yes, in what way? In particular:
 - What is your total annual fish production?
 - What is the product price per kg?
 - What is the production cost?
- What is the number of people working on the fish farm (full time, part time and seasonal)?
- Do you (i.e. your household and/or employees) consume any of your fish production?
- What is your current average fish consumption per person (frequency per week, average consumption per person per time) vs. before introducing aquaculture?
- From your point of view what were the project limitations? Have any steps been taken during implementation to address those limitations?
- What other technical assistance you think future interventions could provide to build on the realized benefits for you?

- كيف أصبحت مستفيد من المشروع؟
- ماذا قدم لك المشروع من دعم؟
- ما هي النتائج التي تحققت لك من خلال كونك مستفيد من المشروع (على مستوى عملك أو أسرته أو المجتمع)؟ بعبارة أخرى هل أثر المشروع على معيشتك أو عملك؟ إذا كانت الإجابة نعم – كيف؟ بالأخص:
 - ما هو حجم إنتاجك السنوي من الأسماك؟
 - ما هو سعر المنتج للكيلو؟
 - ما هي تكلفة الإنتاج؟
- ما هو عدد العاملين في المزرعة (كامل الوقت، جزء من الوقت، موسمي)؟



- هل تستهلك (أسرتك أو العاملين) أي جزء من السمك الذي تنتجه؟
- ما هو متوسط استهلاك السمك الحالي لكل فرد (عدد المرات في الأسبوع، متوسط استهلاك الفرد في المرة) مقابل قبل إدخال نشاط الاستزراع السمكي؟
- من وجهة نظرك – ما هي أوجه قصور المشروع (فيما يتعلق بالتصميم والتنفيذ والنتائج)؟ هل تم اتخاذ أي خطوات لمعالجة أوجه القصور تلك أثناء تنفيذ المشروع؟
- في رأيك ما هي سبل الدعم الفني التي يمكن أن تنفذها مشروعات أخرى في المستقبل للبناء على المنافع التي تحققت لك من خلال المشروع؟

E.3. Fish processors

- How did you become a beneficiary of the project?
 - What has the project offered you in terms of assistance?
 - What steps have you taken to change your operations based on the assistance you have received under the project?
 - What are the challenges that are hindering the development of fish processing in Aswan?
 - From your point of view what were the project limitations concerning fish processing?
 - What other technical assistance you think future interventions could provide to build on the realized benefits for you?
- كيف أصبحت مستفيد من المشروع؟
 - ماذا قدم لك المشروع من دعم؟
 - ما هي الخطوات التي اتخذتها لتغيير عمليات الإنتاج التي تقوم بها بناء على الدعم الذي تلقيته من المشروع؟
 - ما هي التحديات التي تواجه تنمية قطاع تصنيع الأسماك في أسوان؟
 - من وجهة نظرك – ما هي أوجه قصور المشروع فيما يتعلق بتصنيع الأسماك؟
 - في رأيك ما هي سبل الدعم الفني التي يمكن أن تنفذها مشروعات أخرى في المستقبل للبناء على المنافع التي تحققت لك من خلال المشروع؟

E.4. WRs

- How has the project addressed your specific needs as a woman in Aswan? Do you think this was adequate? What could have been done to better address your needs?
- Has the project led to a change in your life (e.g. the way you carry out activities at home, the way you interact with your community?) If yes, in what way? In particular:
 - What type of fish do you sell?
 - What is the current sales volume per day vs. before the intervention?
- What is the current average sales price vs. before the intervention?
- What is the current cost per kg (including fish and other costs such as transportation and ice...) vs. before the intervention?
- Currently, fish can be kept in fridge before selling for how many days vs. before the intervention?



- What other interventions would you like other projects to provide in the future?
- هل ساعد المشروع في تلبية متطلباتك في العمل والمعيشة كمرأة في أسوان؟ هل تعتقدين أن هذا كاف؟ ما الذي كان يمكن عمله لتلبية متطلباتك بشكل أفضل؟
- هل أدى المشروع إلى تغيير في حياتك (على سبيل المثال طريقة تأديتك لأنشطتك في المنزل، طريقة تعاملك مع المجتمع؟) إذا كانت الإجابة نعم – كيف؟ بالأخص:
 - ما هو نوع السمك الذي تبيعه؟
 - ما هي كمية السمك الذي تبيعه في اليوم حاليًا مقابل كمية السمك قبل تدخلات المشروع؟
- ما هي التكلفة الحالية للكيلو (بما في ذلك السمك والتكاليف الأخرى مثل النقل ...) مقابل التكلفة قبل التدخلات؟
- حاليًا يمكن الاحتفاظ بالسمك لمدة كام يوم في الثلاجة مقابل عد الأيام قبل التدخلات؟
- ما هي التدخلات التي يمكن لمشروعات أخرى أن تقدمها في المستقبل؟

Women who trained but have not adopted VSLA

- Why have you not adopted VSLA? We could enrich this discussion by asking what could have been done differently etc.
- لماذا لم تنضمي لمجموعة الادخار والإقراض؟

The draft survey questionnaires for fishers and women beneficiaries are submitted separately as Excel files.



Annex (5) – List of Interviewees

SDC

- Laila Kenawy, National Programme Officer

WorldFish

1. Ahmed NasrAllah, Scientist
2. Innocent Bikara, Monitoring & Evaluation Specialist

YEAG Project

1. Dr. Olfat Omar, Project Manager
2. Amira Mostafa, Gender Officer
3. Othman Sablik, VSLA Consultant

Aswan Businessmen Association

- Mamdouh Okasha (Executive Director)

Fishermen Associations

Mother Association (5)

Aswan Sons Association (2)

Nubian Association (2)

Takamoul Association (1)

Misr Awan Co. (2)

Fishers chief

Aquatic Union, member (1)

Owner of fishing boat

Improving Health Association

- Dorreya (Executive Director)
- VSLA participants (35)

Cobania VSLA participants (24)

Bait El-Khair Association

- Fish tanning (8)

Fish processors (2)

Fish farmers (2)

Youth (4)

Authority for Development of High Lake Dam



- Dr. Mohamed Shahat, Head of Authority

GAFRD

- Dr. Khaled El-Hassany, Executive Director



Annex (6) – Survey Design

A) Survey sampling:

- *The sampling frame:* The sampling frames for the three groups of beneficiaries were determined as follows:
 - **Fishers:** The project envisaged increased net income by 10% for 1,000 fishers due to the use of the good fishing practices and catching larger sized fish. However, as WorldFish Team clarified that the benefit realized as a result of fishers training can only be detected after at least 1-2 months, the Evaluation Team decided that the sampling frame will be the fishers trained from the beginning of the project in July 2017 until the end of December 2018. The sampling frame for fishers developed from the databases provided by the project team comprised 851 trained fishers.
 - **Women:** Concerning women, the project objectives included: 100 jobs retained in fish retail and income of 100 WR improved by 50% through training on various subjects (such as Village Savings and Loans Association (VSLA), cooking and filleting, etc.) and providing them with relevant tools such as icebox, knives, weighing scales. As project interventions were quite similar in nature and all aimed to create jobs and generate income for those women, interventions targeting women were covered by one survey. Thus, the sampling frame for women included all the women who received various services offered by the project (namely, training on VSLA, cooking, filleting, salting, fish leather tanning and project management and delivery of knives, apron, weighing scales, icebox and umbrella) (155 women beneficiaries).
 - **Fish farmers:** The project's objectives concerning aquaculture, as per the project's logframe, are identified as follows: 50 smallholder farms established creating 100 jobs; dietary diversity and income improved in 100 smallholder households; small-scale, integrated aquaculture-aquaculture systems actively promoted as a livelihood option for small-holder farmers by extension services and NGOs in Aswan. Discussions with the project staff revealed that in order to be able to assess the attainment of these objectives, fish farmers needed to have produced fish. Out of the 21 fish farms already established, according to the database provided to the Evaluation Team by the project, only 13 were at a stage that allows for such an assessment; the remaining 8 have not produced fish at the time of the evaluation. Therefore, the sampling frame for fish farmers is 13 fish farmers.
- *Sample size and composition:*
 - **Fishers:** The selected sample size is 10% of the eligible sampling frame. The Evaluation Team used **stratified proportional sampling method**, where the stratum is the association to which fishers belong. Discussions with the project manager revealed that the Nasser Lake is divided proportionately among four associations, namely: The Mother Association (1,450 licenses), El-Takamoul Association (61 licenses), Aswan Sons Association (623 licenses), Nubian Associations (533 licenses), in addition Misr-Aswan Co. (which is a private company – 163 licenses). These entities are responsible for issuing licenses to fishers. The training was focused on fishers belonging to the four associations. Two points should be mentioned about the fishers sampling frame: (i) the frame does not include fishers from Aswan Sons as training

to those fishers was delivered in the first quarter of 2019, which as explained above was not covered by the survey; (ii) although El-Takamoul Association represents only 2% of licenses it accounted for 18% of trained fishers while Nubian Association accounts for 20% of the licenses and 30% of trained fishers. The sample was then selected using systematic random sampling. The sample size for fishers is presented in the table below.

Table 7: Fishers sample size

Association	No. of fishers trained	Sample
Mother	445	15
Nubian	256	44
El-Takamoul	150	26
Total	851	85

All fishing areas are represented for each association.

- **Women:** The Evaluation Team used **systematic random sampling method**, where the list of women beneficiaries was sorted by type of intervention and then a sample was selected according to the number of women who benefited from each type of intervention offered by the project (namely, training on VSLA, cooking, filleting, salting, smoking, fish leather tanning and project management and receipt of knives, apron, weighing scales, icebox and umbrella) are represented. The selected sample size, as shown below, is 71. Table 3 shows the distribution of the sample by each type of intervention.

Table 8: Women sample selection by type of intervention

Type of intervention	No.	Sample	%	Step	Random no.
Ice box	21	9	42.9	2	1
Cooking	29	14	48.3	2	3
Filleting	45	15	33.3	3	2
Project management	27	12	44.4	2	1
Salting	14	7	50.0	2	1
Smoking	16	8	50.0	2	2
VSLA	6	6	100.0	1	1
Total	158	71			

- **Fish farmers:** As the number of fish farmers is very small, the Evaluation Team sampled the whole sampling frame, i.e. the 13 fish farmers.

B) Survey questionnaire:

The questionnaires aimed to assess to what extent the project has achieved its objectives from the perspective of beneficiaries. The survey questionnaires were developed by the Evaluation Team in consultation with WorldFish and the project manager. The main themes covered in the questionnaires were:



- **Fishers:** fishing volume and selling price (before and after the training), assessment of BMP training, benefits realized from technical assistance provided by the project and recommendations for future interventions.
- **Women:** services received under the project and benefits realized as a result of these services, sales volume and selling price (before and after interventions) and recommendations for future interventions.
- **Fish farmers:** fish production and consumption, distribution channel, benefits realized from technical assistance provided by the project and recommendations for future interventions.

The questionnaires which were *semi-structured* (i.e. including a mix of closed ended and open-ended questions) were designed to detect change in the conditions and behavior of beneficiaries due to project interventions in relation to the project indicators identified in the logframe. Particular attention was paid to the wording of questions and responses, sequencing of the questions and translation. They were developed in English and translated into Arabic after being approved by WorldFish.

A separate system was prepared for each of the three questionnaires using Census and Survey Processing System (CSPPro) (<https://www.census.gov/data/software/cspro.html>), then it was uploaded to field researchers' smart phones. A large account Dropbox was set up to be able to link the field researchers with their mobiles with this Dropbox account.

Due to the geographic spread of beneficiaries and in order to ensure that the evaluation is conducted in a cost-effective manner within the designated tight timeframe, the surveys were administered by phone during the period 11-15 April 2019.

To ensure quality of data collected in survey, enumerators¹⁷ were trained on the questionnaire and they received clear instructions about posing the questions and recording of responses. The questionnaires were tested by the field researchers with a number of beneficiaries.

¹⁷ These field researchers have gained a good understanding of the project and its activities as they joined the Team Leader in all meetings in Aswan mission.

Annex (7) – Statistical Analysis

In this annex, we present the analysis of the three surveys, namely: fishers, women and fish farmers.

1. Fishers

1.1 Fishers characteristics

As explained in the sampling sub-section of the report, the sample comprised 85 fishers, 57% of whom belonged to the Mother Association, while 28% and 15% are affiliated with the Nubian Association and Takamoul Association respectively. Table 9 shows the fishers distribution by fishing area.

Figure 4: Fishers affiliation by association

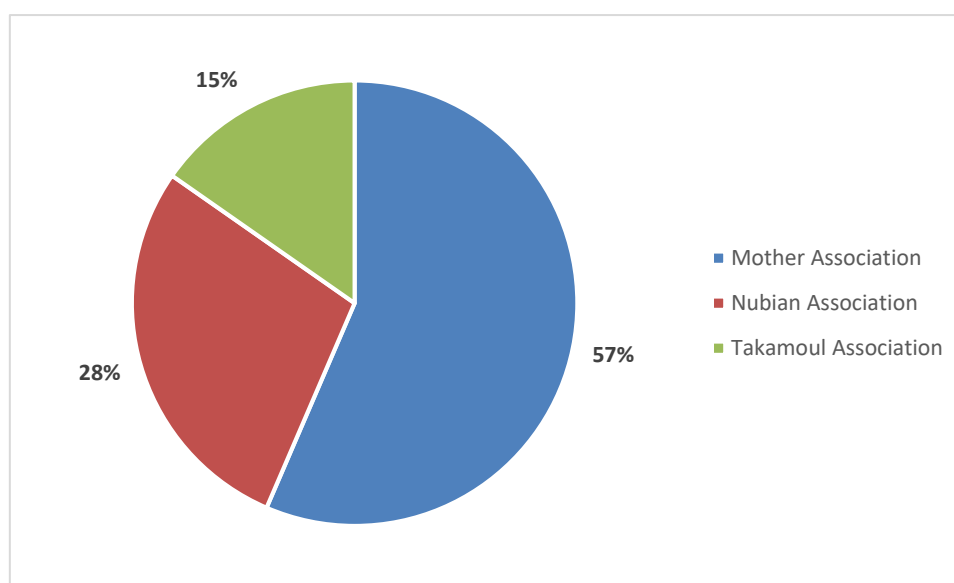


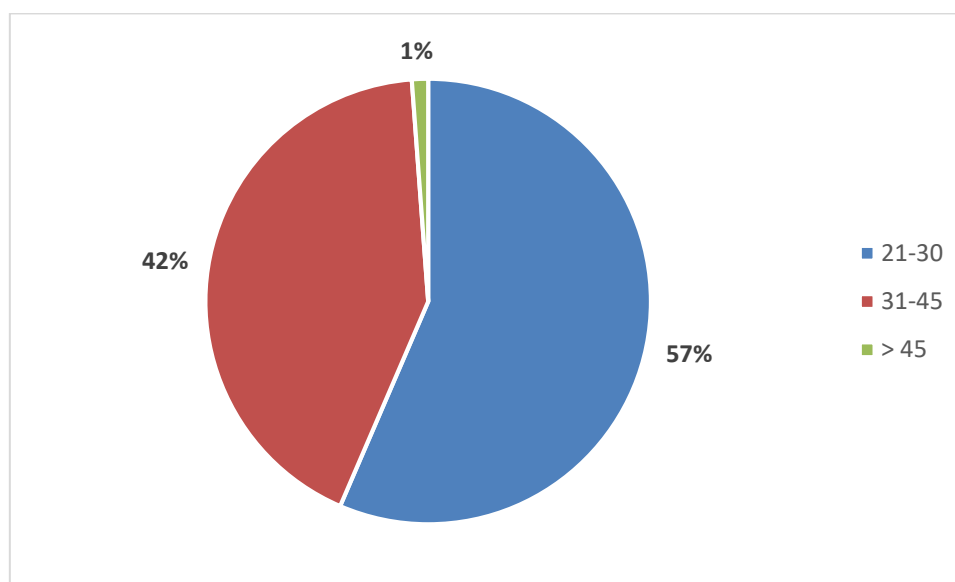
Table 9: Fishers distribution by fishing area

Fishing area	Frequency	Percentage
Khor El-Sibu	2	2.35
El-Mehrraka	6	7.06
El-Madiq	2	2.35
Khor Abu State	2	2.35
Garf Hussein	8	9.41
Khor Mariya	5	5.88
Khor Absco	4	4.71
Khor El-Soker	4	4.71
Khor Wadi Abyad	1	1.18
Khor Ashkeet	3	3.53
Alalaki	4	4.71
Khor Sara	1	1.18
Khor Arkin	6	7.06
Khor Or	24	28.24

Fishing area	Frequency	Percentage
Alalaki	13	15.29
Total	85	100

The majority of fishers (57%) are youth aged less than 30 and 42% are aged between 21 and 30 years old.

Figure 5: Fishers' age



1.2 Type of caught fish

As Table 10 below shows, the majority of fishers used to catch 10-20 kg of tilapia and raya.

Table 10: Type of fish caught and catch volume

Catch volume	Type of Fish		
	Tilapia	Raya	Nile perch
< 10 kg	4	5	1
10-20 kg	81	79	0
Total	85	84	1

All fishers reported that they used to catch tilapia of weight 500 gm - 1 kg.

The majority of fishers (93%) mentioned that the average selling price of tilapia is LE 15-16 / kg, while the 82% reported an average price for raya of 30-35 LE/kg.

Figure 6: Average price of tilapia (LE/kg)

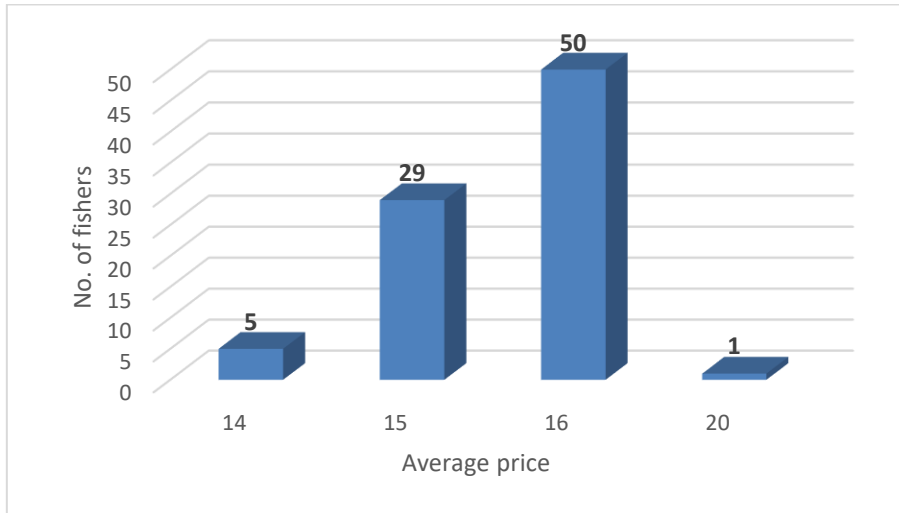
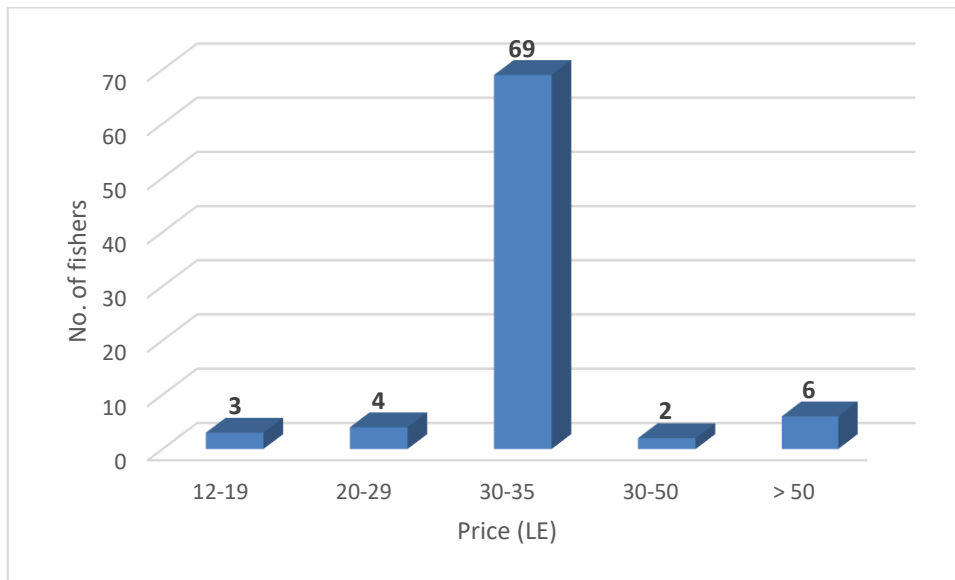
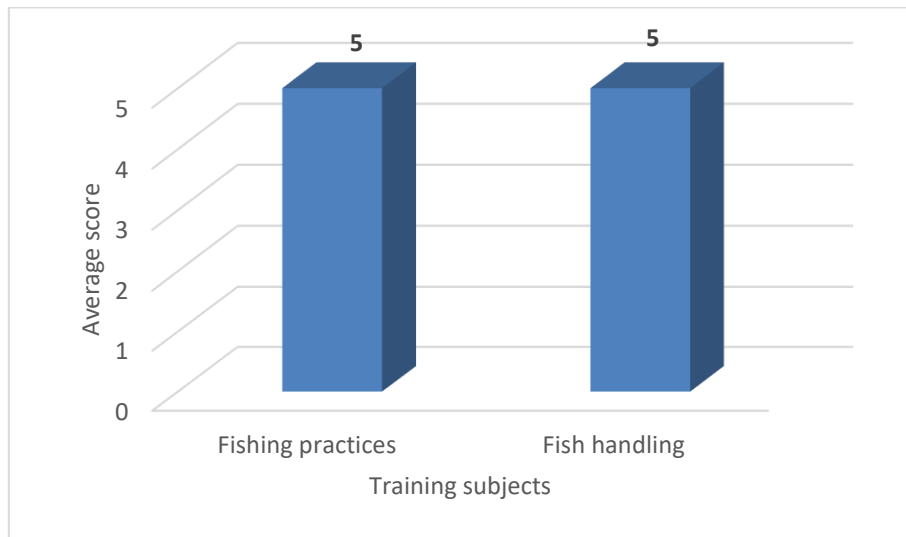


Figure 7: Average price of raya (LE/kg)



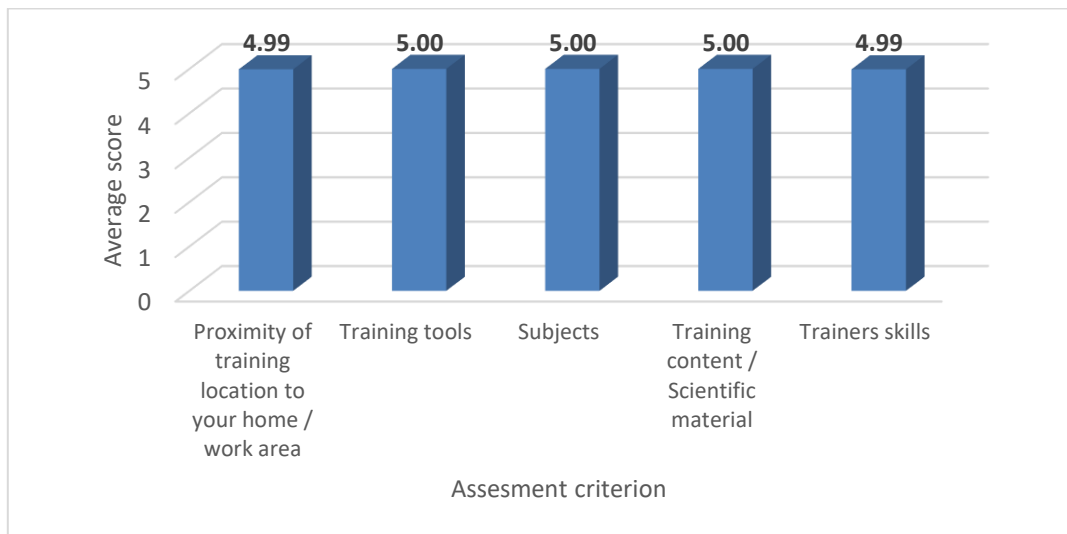
All fishers reported that they benefited from the training offered under the project and their assessment of the training was positive as the average score was 5.

Figure 8: Assessment of training subjects



The average score reported by all fishers for training management or logistics in terms of proximity of training location to home / work area, training tools, subjects, training content/scientific material and trainers' skill.

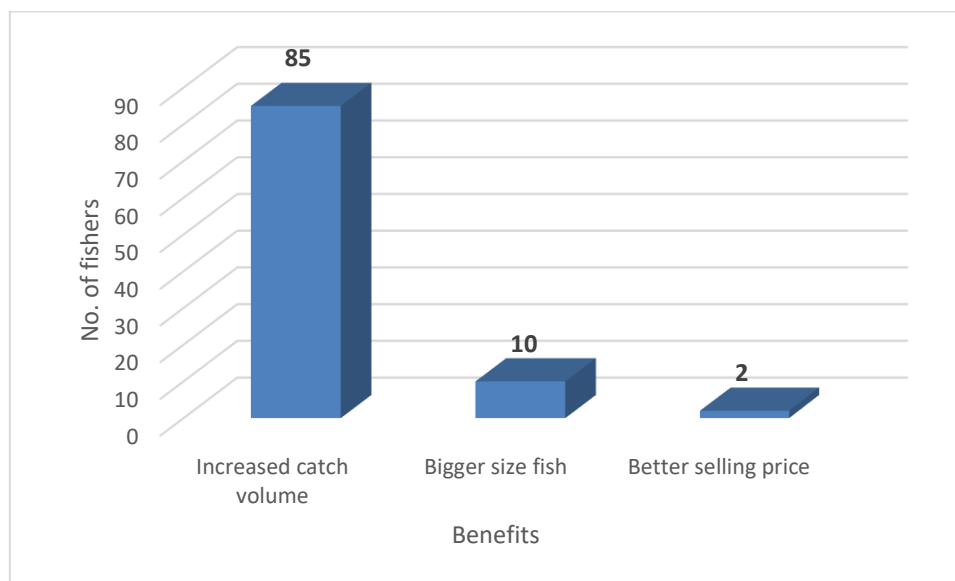
Figure 9: Assessment of training management or logistics (average score)



Around 8% of the fishers suggested having training on first aid which is very important for fishers especially as there are no health care units close to the Lake.

Fishers cited increased fish volume, bigger fish size and better selling price as benefits realized from the training.

Figure 10: Benefits realized from training



Nearly 9% of fishers mentioned they would like to receive continued support in the future.

2. Women

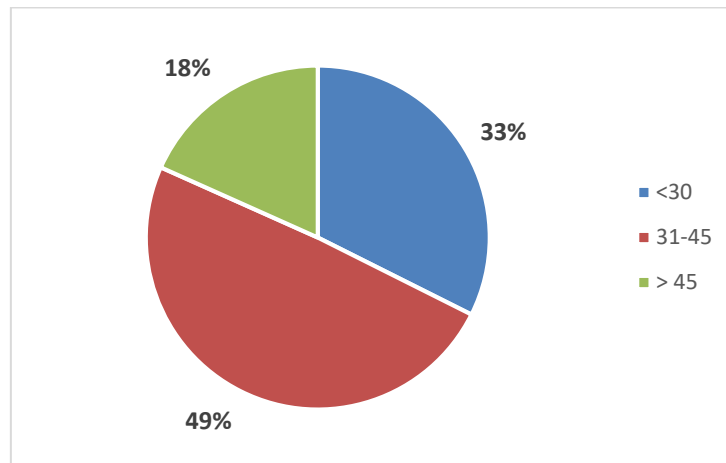
2.1. Women characteristics

The sample of women consisted of 71 women from the locations in Table 11. One third of these women are youth (i.e. less than 30 years old).

Table 11: Women location

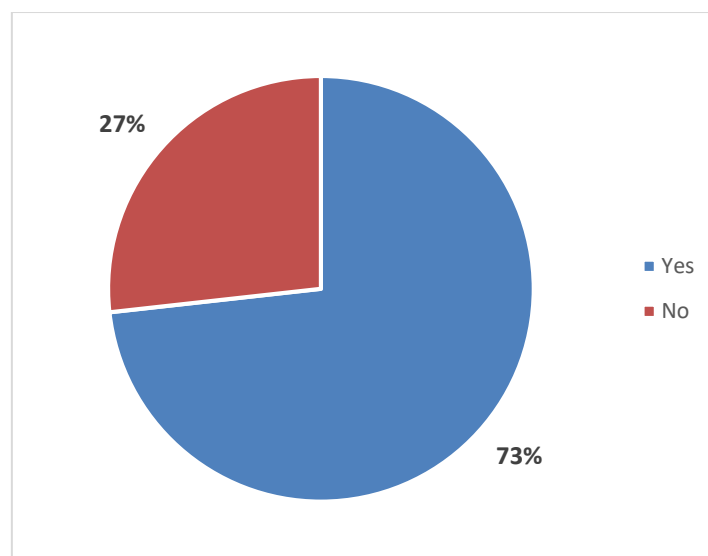
Location	Frequency	Percentage
Cobania	10	14.08
Nassiriya	14	19.72
Kom Ombo	16	22.54
Sahary	5	7.04
Tenkar	1	1.41
Awad island	4	5.63
Patanyn	2	2.82
Suhail West	1	1.41
El-Seil	1	1.41
Aswan	1	1.41
Daraw	1	1.41
Khor Awad	9	12.68
Karwor	2	2.82
Other	4	5.63
Total	71	100

Figure 11: Women age



More than two thirds (73%) of the women engaged in fish retail activity.

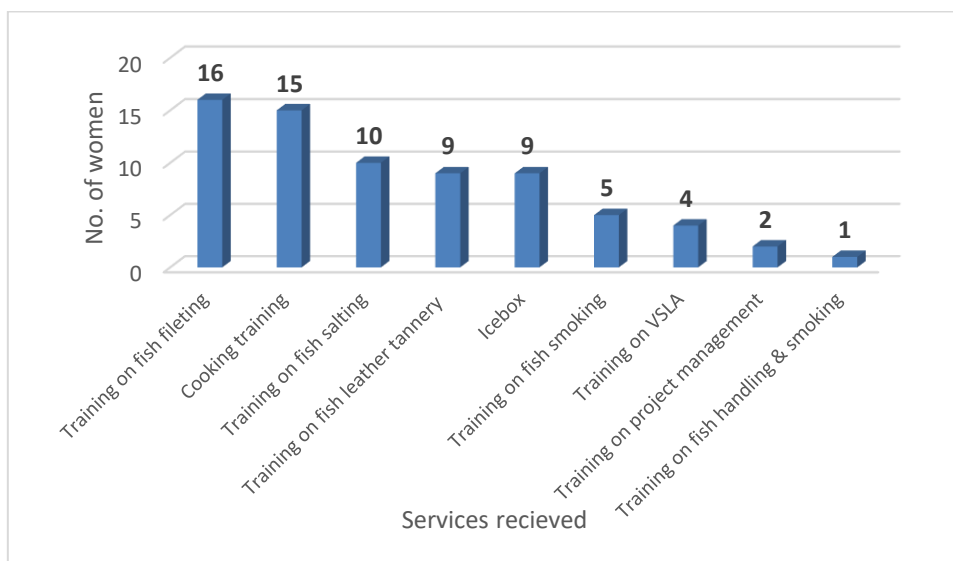
Figure 12: Women retailers



2.2 Services received

Figure 13 shows the distribution of services received by women in the sample.

Figure 13: Services received under the project



When asked about benefits realized from services received under the project, improved working conditions was the most cited benefit followed by increase in household income, ability to communicate with other women and access to capital through VSLA. Other reasons mentioned by women (as shown in Figure 15) included: project management training was very useful, technical material of training and cooking tilapia in new ways.

Figure 14: Benefits realized from received services

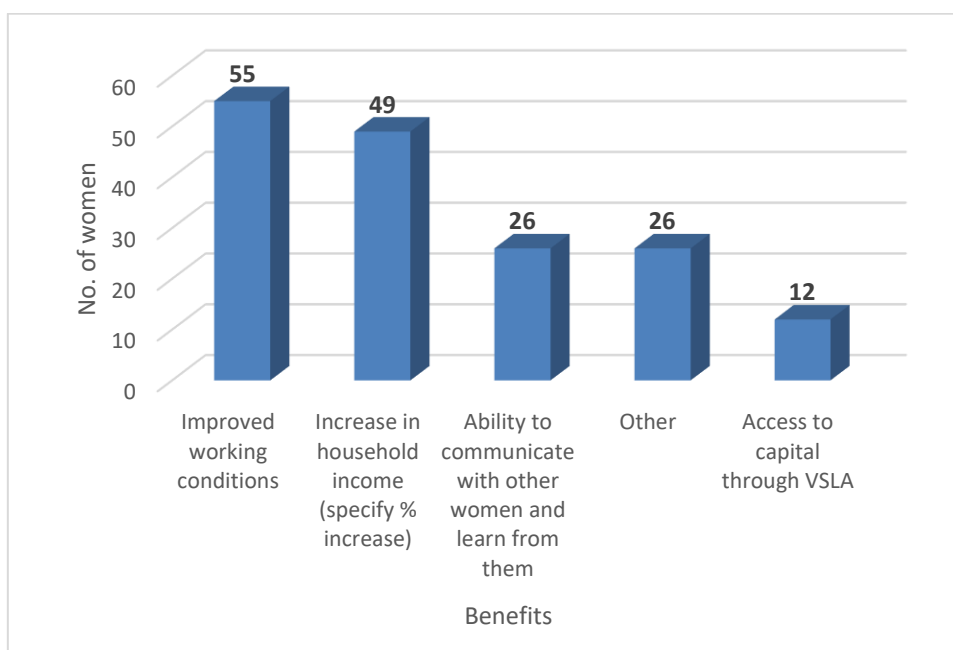
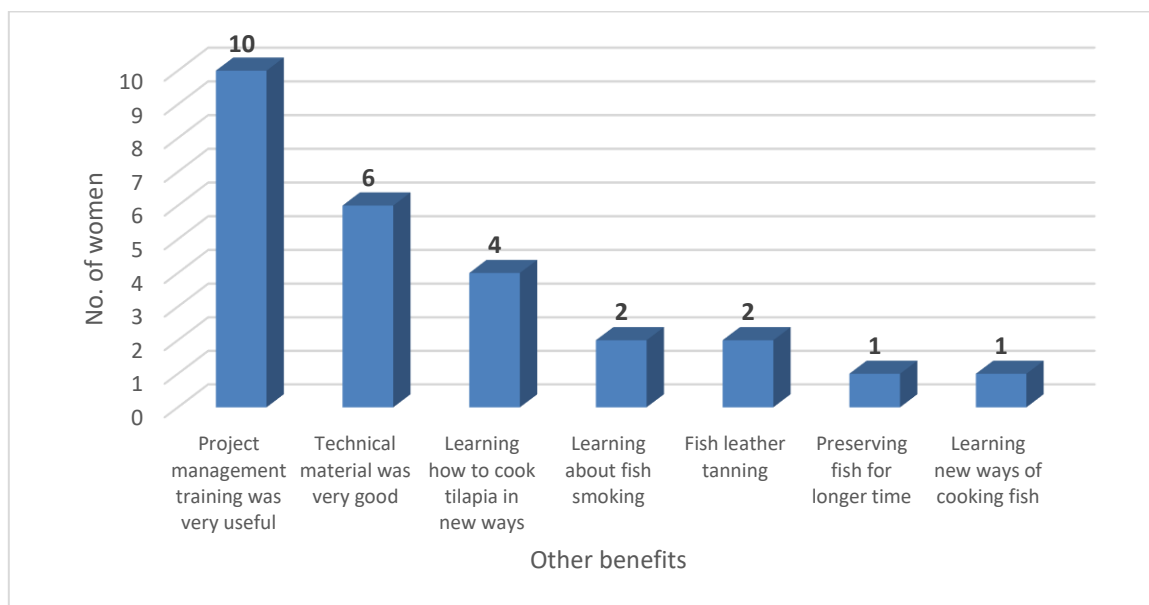
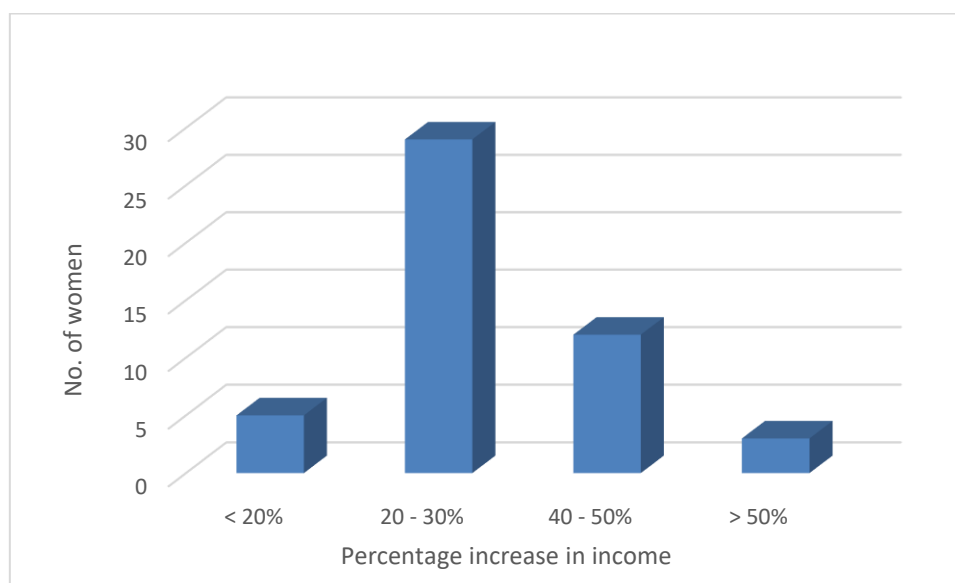


Figure 15: Other benefits realized from received services



Of the 49 women who indicated an increase in income after the project intervention, 29 reported a 20-30% increase.

Figure 16: Percentage increase in income of women retailers



Eight per cent of women mentioned they faced challenges related to applying skills they learnt when asked to specify the challenges they faced, the most cited challenge was lack of capital.

Figure 17: Beneficiaries facing challenges in applying skills learnt in the project

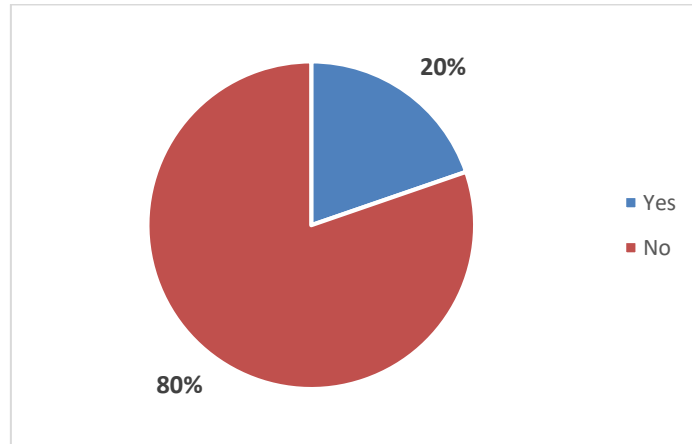
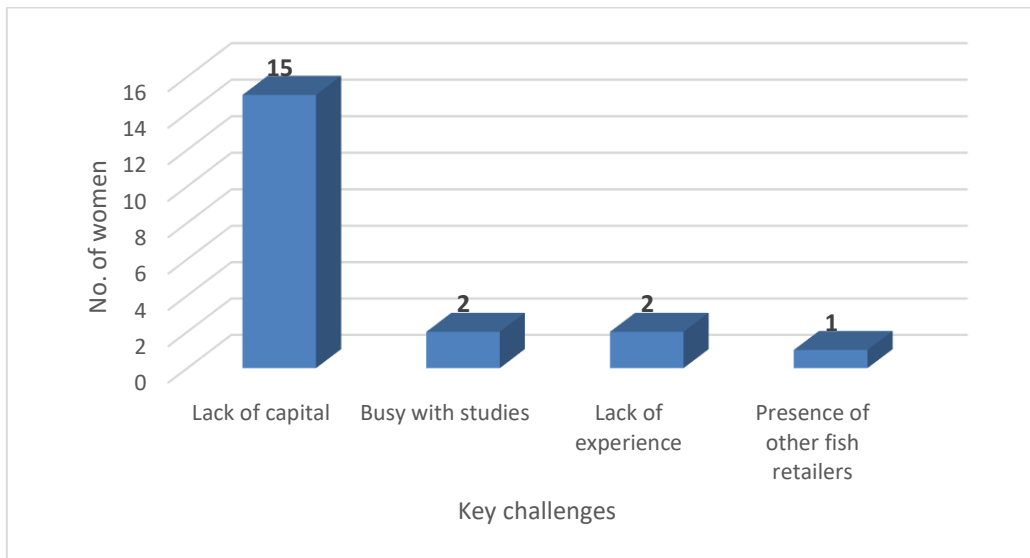
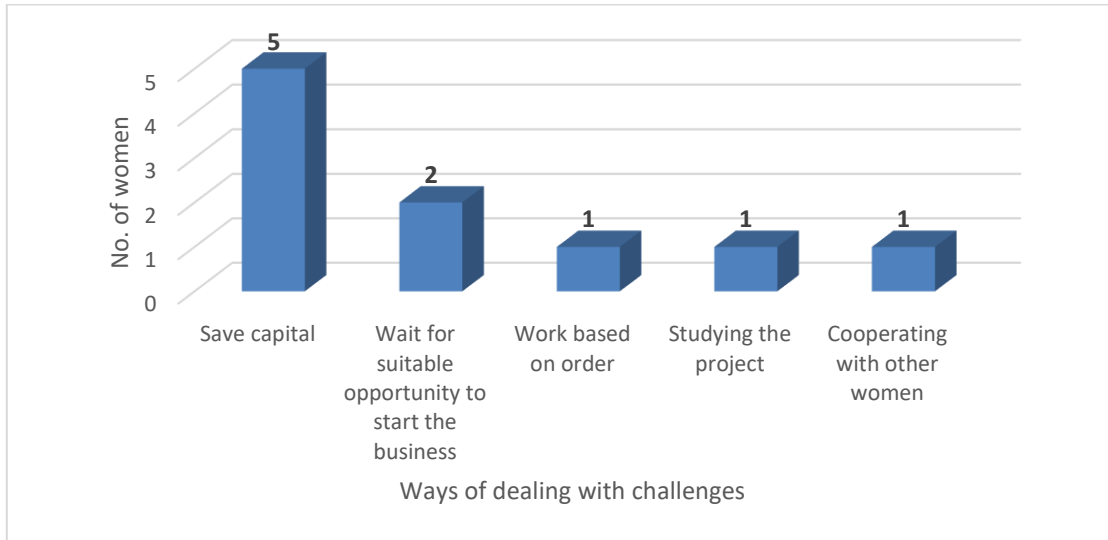


Figure 18: Key challenges faced by beneficiaries



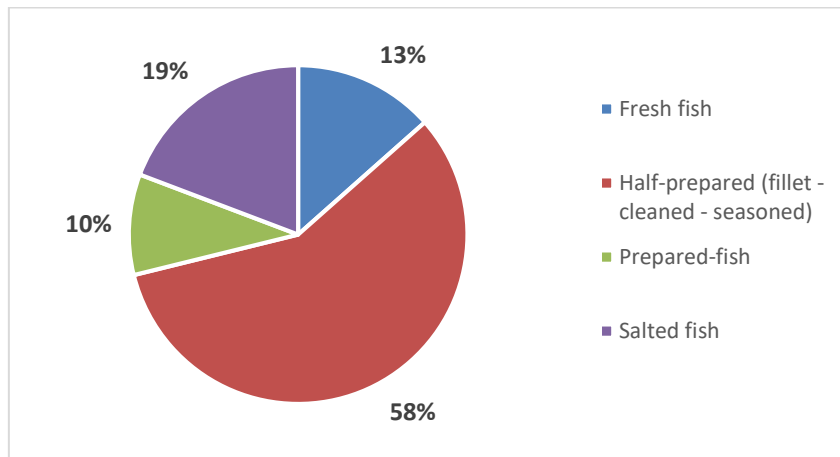
Many of the women said they postponed starting their business until they have saved enough capital or until a suitable opportunity arises.

Figure 19: How beneficiaries dealt with the challenges



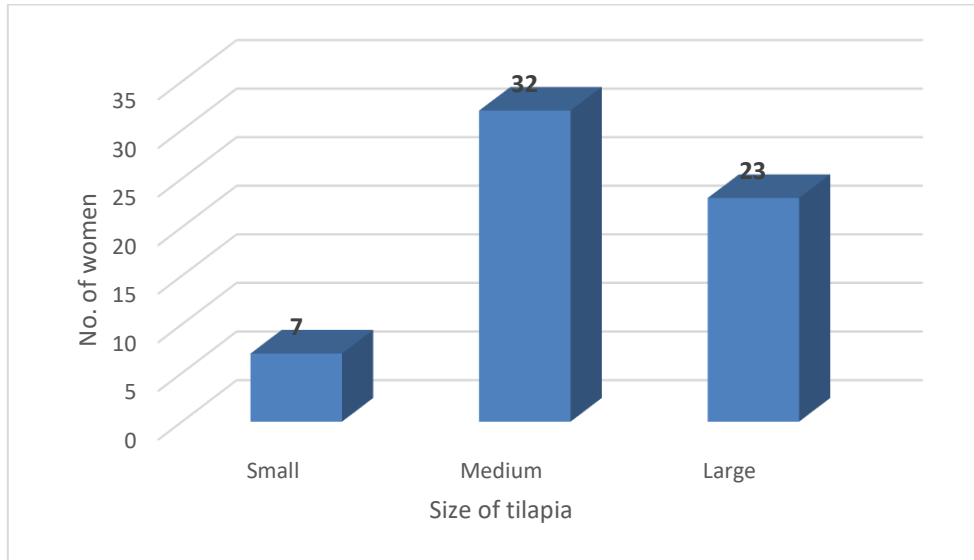
Almost 60% of women indicated that they sell half prepared fish (i.e. cleaned or seasoned) and nearly 20% said they sold salted fish.

Figure 20: Type of fish sale activity



All of those who sold fish indicated they sell tilapia; only one sold catfish as well. The most common sold size of tilapia is medium size; in addition, some WRs sell large and small size (as indicated in Figure 21).

Figure 21: Size of sold tilapia



It is clear from Figure 22, Figure 23 and Figure 24 that there was an increase in average daily sales volume for the three sizes of tilapia after the project intervention.

Figure 22: Average daily sales volume of small tilapia (kg) (before and after intervention)

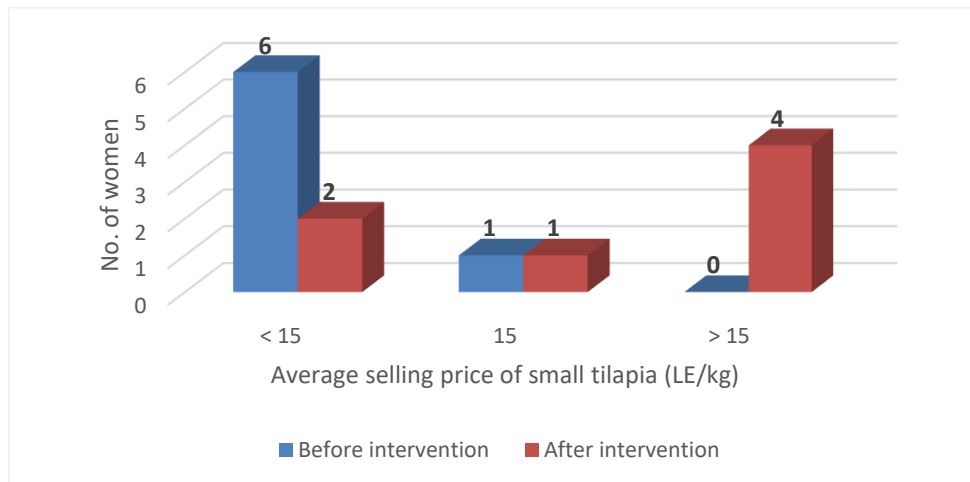


Figure 23: Average daily sales volume of medium tilapia (kg) (before and after intervention)

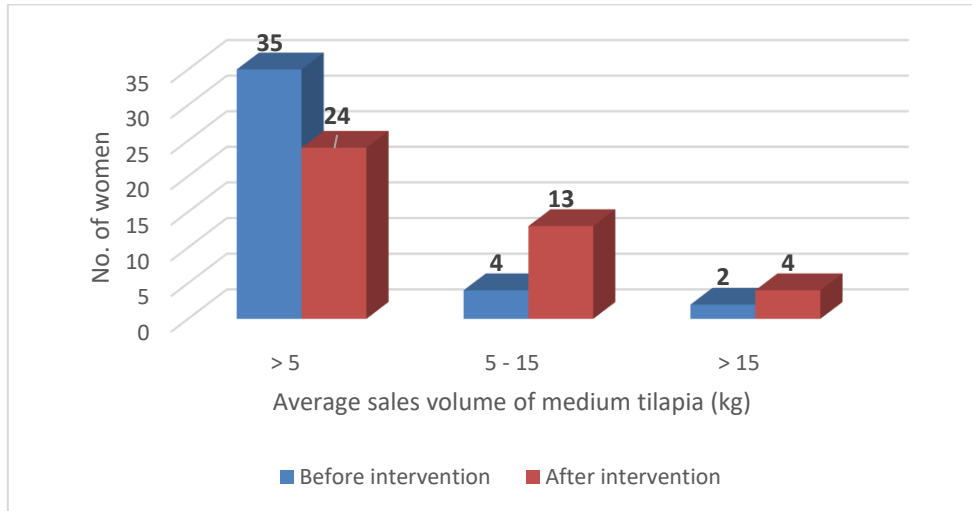
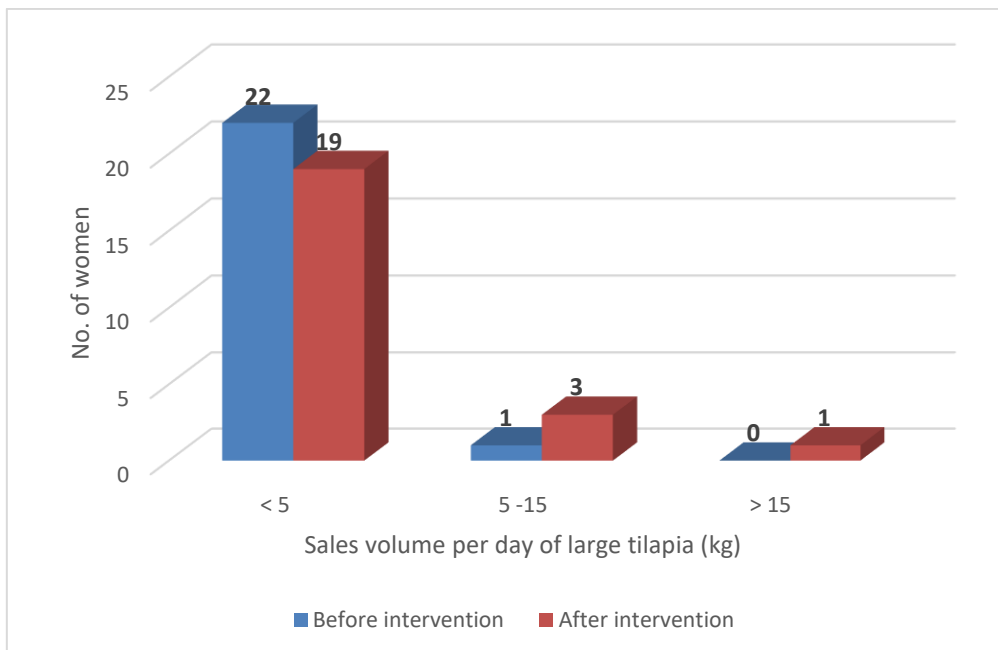


Figure 24: Average daily sales volume of large tilapia (kg) (before and after intervention)



A remarkable increase in average selling price was reported for all size of fish after the project intervention, as illustrated in Figure 25, Figure 26 and Figure 27. On average, the selling price increased from 7.5, 10.7 and LE 17.8 to LE 15.5, LE 34.7 and LE 45 for small, medium and large tilapia respectively.

Figure 25: Average selling price of small tilapia (LE/kg) (before and after intervention)

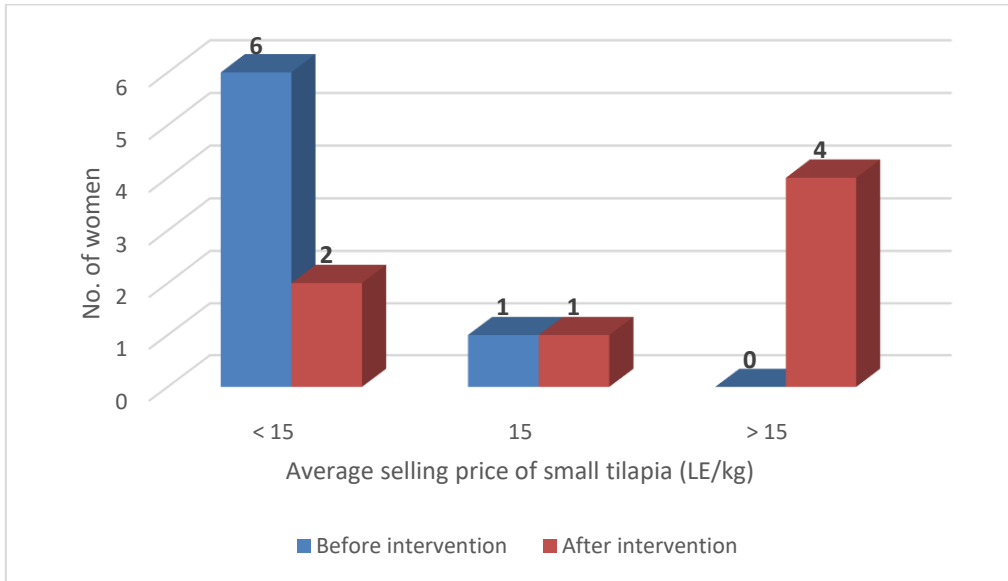


Figure 26: Average selling price of medium tilapia (LE/kg) (before and after intervention)

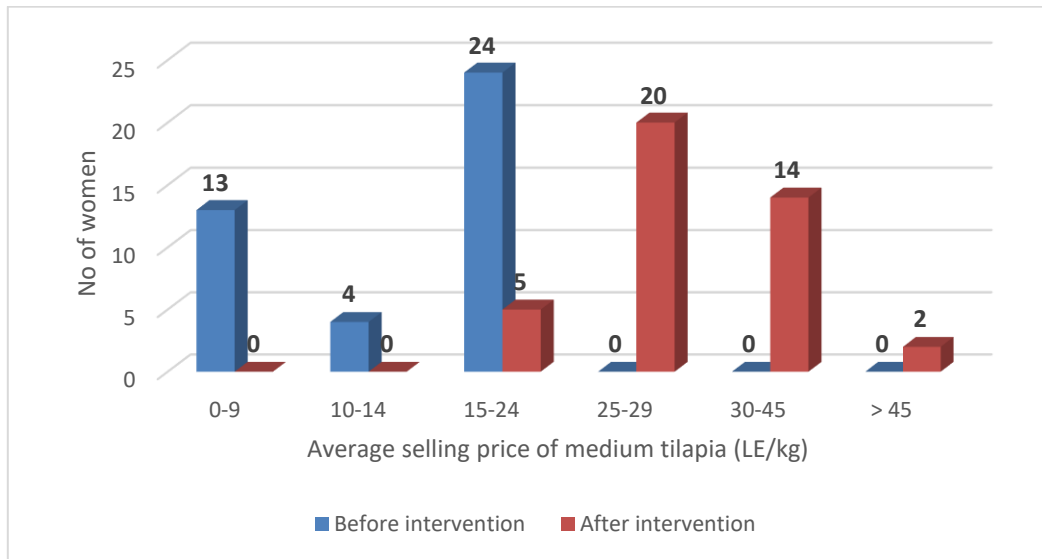
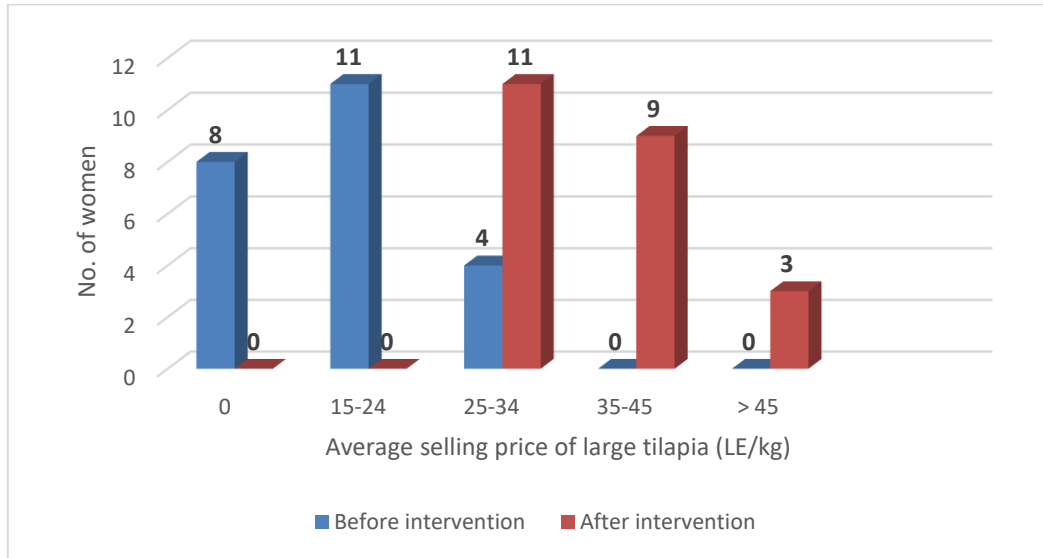


Figure 27: Average selling price of large tilapia (LE/kg) (before and after intervention)



The reported current average cost of small, medium and large tilapia is LE 15.5, LE 26.5 and LE 30 respectively.

Figure 28: Current cost of small tilapia (LE)

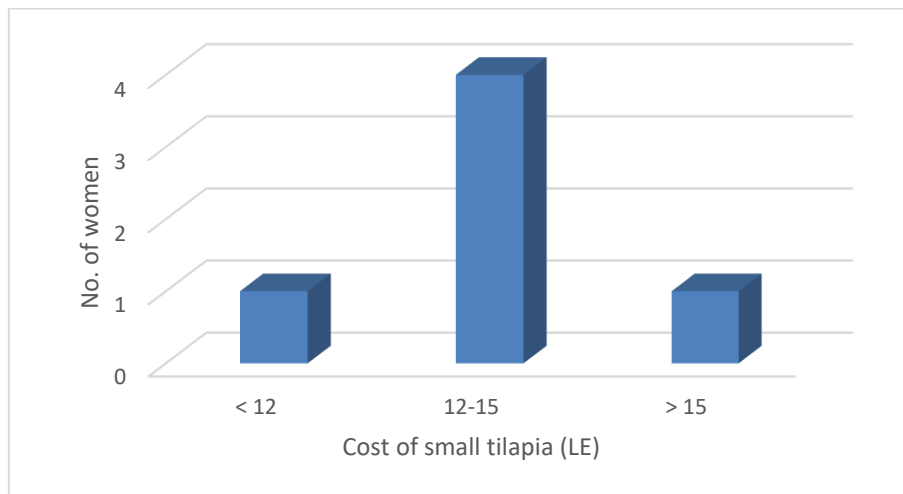


Figure 29: Current cost of medium tilapia (LE)

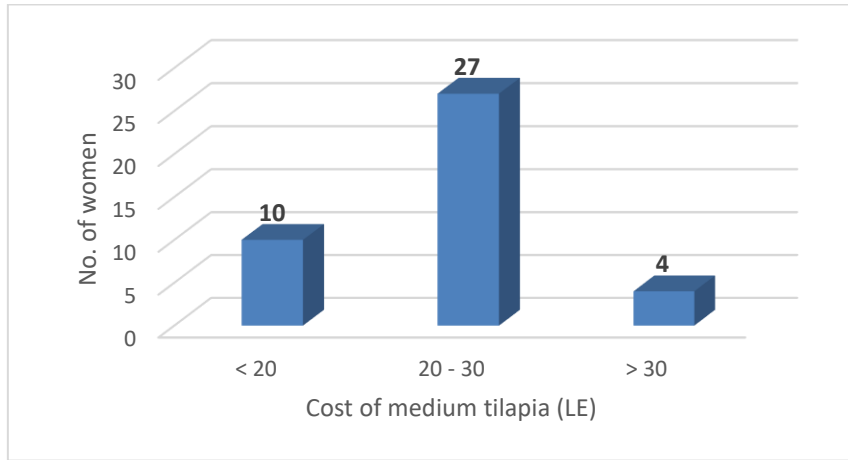
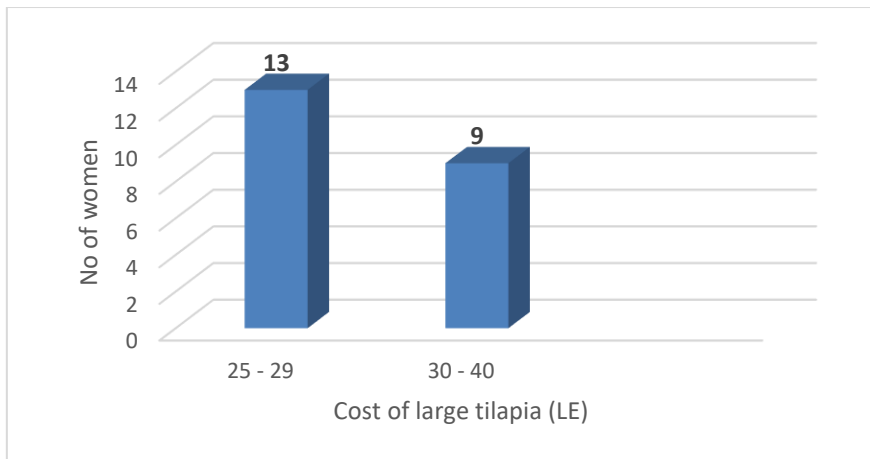
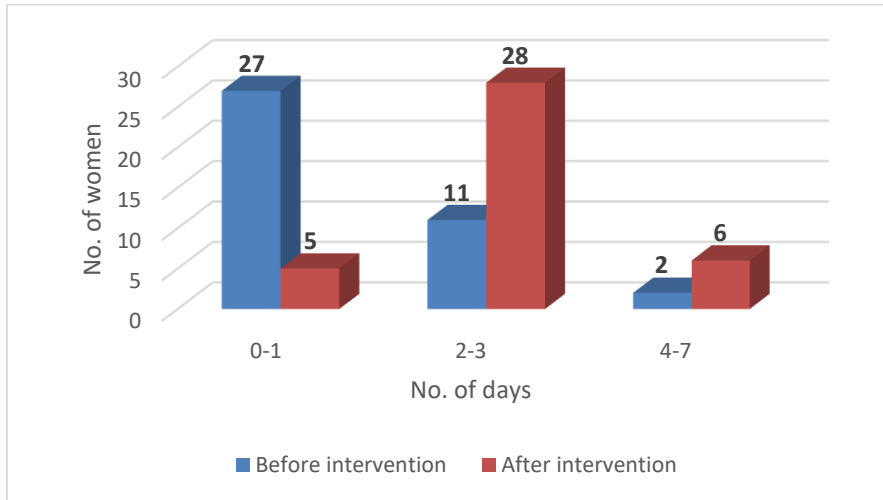


Figure 30: Current cost of large tilapia (LE)



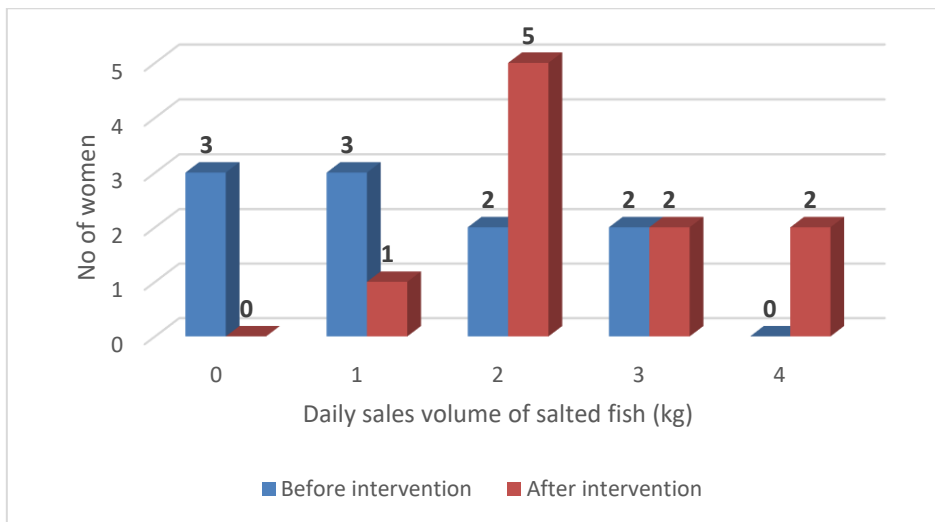
There is a significant increase in the average number of days for preserving fish before selling from 2.6 before the project intervention to 5.3 days after the intervention.

Figure 31: Average number of days for preserving fish before selling (before and after intervention)



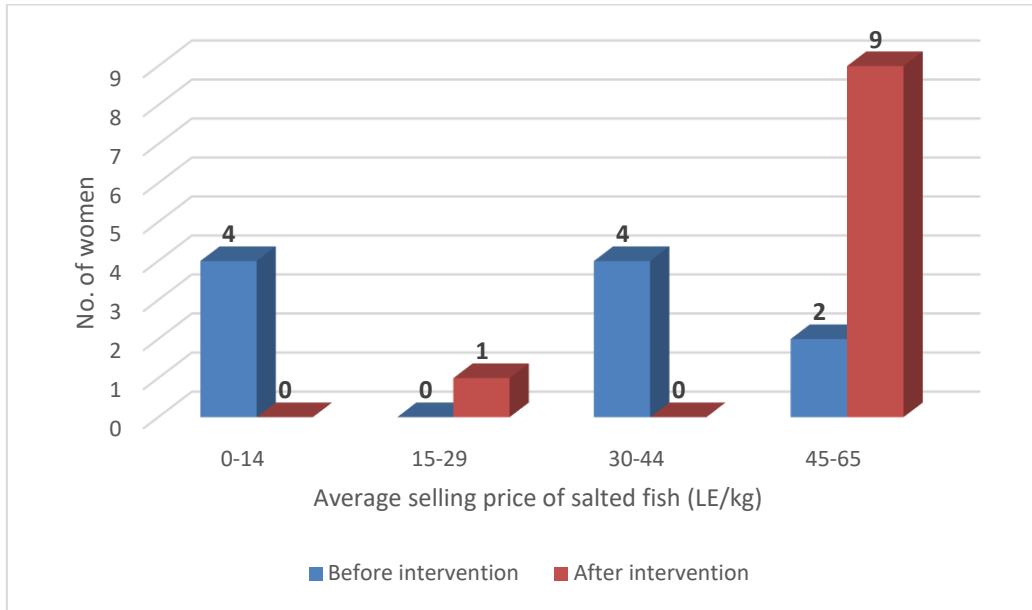
The survey showed that there was an increase in daily sales volume of salted fish, where some women started who did not sell salted fish before started selling it after the intervention while others increased their daily sales volume as indicated in Figure 32. On average daily sales volume of salted fish increased from 1.5 kg to 2.5 kg. The reported current average cost of production of salted fish is LE 35 / kg.

Figure 32: Average daily sales volume of salted fish (kg) (before and after intervention)



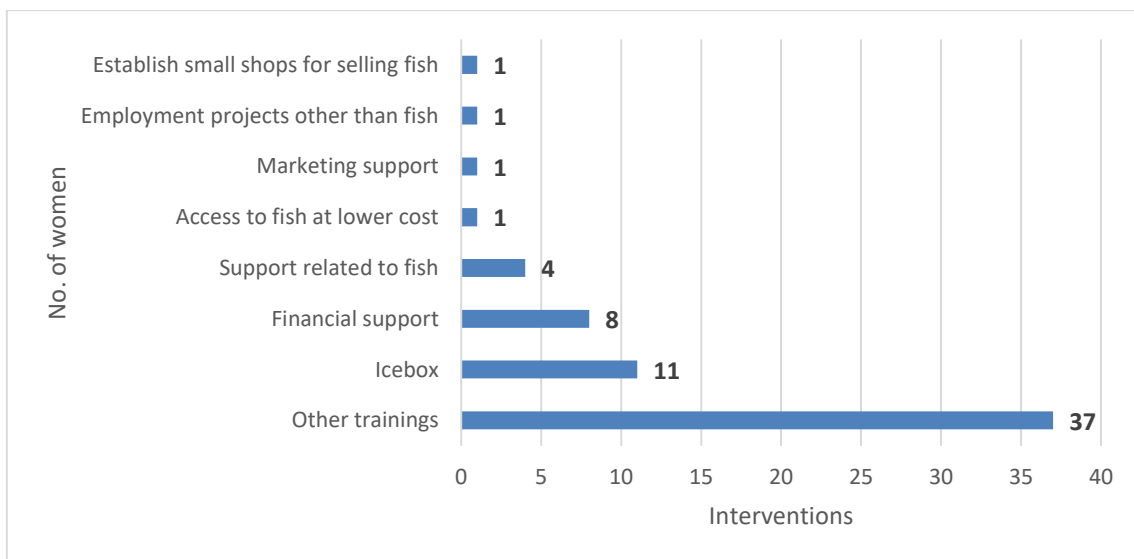
There was also a significant increase in the average selling price of salted fish from LE 27.5 / kg to 41.7 / kg.

Figure 33: Average selling price of salted fish (LE/kg) (before and after intervention)



When asked about possible future interventions, most women indicated their need for other trainings.

Figure 34: Possible future interventions





3. Fish farmers

3.1 Fish farmers characteristics

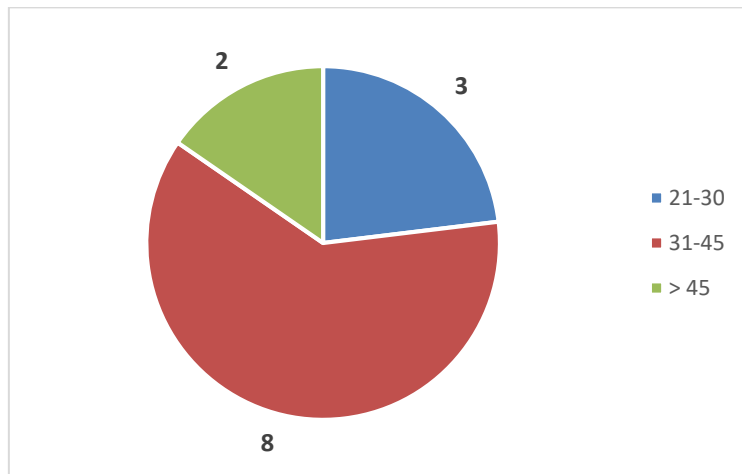
The sample included all the 13 fish farmers who received technical assistance under the project and produced fish. Their location is listed in Table 12 below.

Table 12: Fish farmers location

Location	Frequency
Al-Amal Village at Wadi El-Nokra	1
Karama Village at Wadi El-Nokra	1
Al-Shahama Village at Wadi El-Sa'ayda	3
El-Ramadi Village at Wadi El-Say'ayda	1
Banban Village at Daraw District	2
Garf Hussein	1
Nag' El-Sheikh Zaid El-Kerpanya Village	1
El-Harbyab at Daraw District	1
Abu Simbel	2
Total	13

Most of the fish farmers (8) are aged 31-45 years old.

Figure 35: Fisher farmers' age



More than half of the fish farmers (6) had farms of 1 feddan or less.



Figure 36: Farm area (feddans)

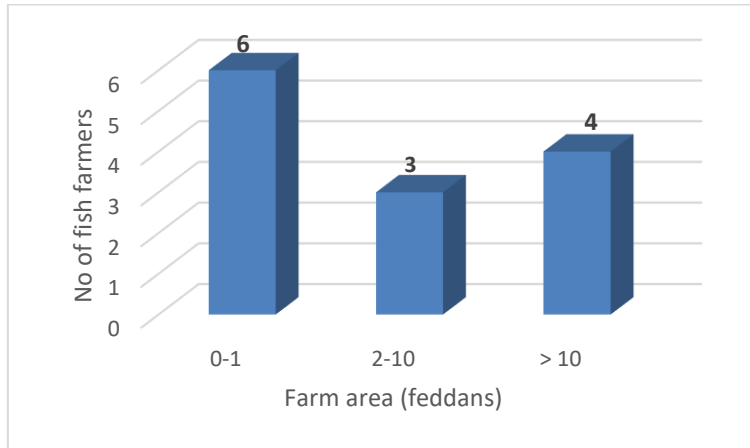
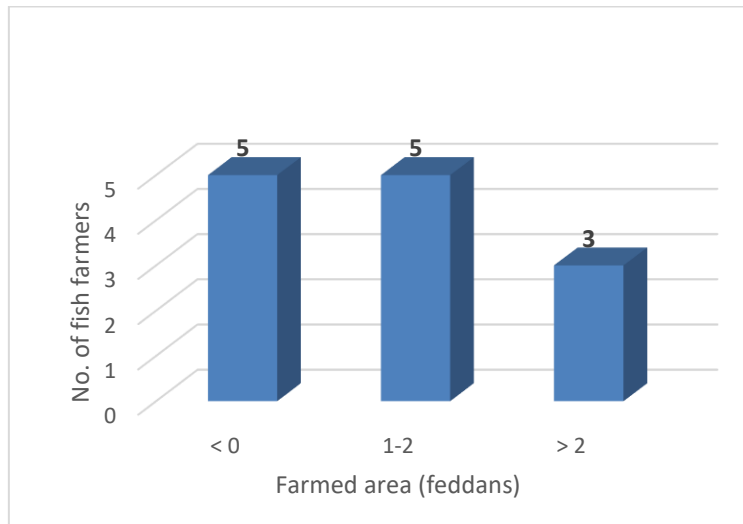


Figure 37: Farmed area (feddans)



The majority of fish farms (10) had 1-2 ponds and most of them (12) were earthen type.

Figure 38: Number of ponds

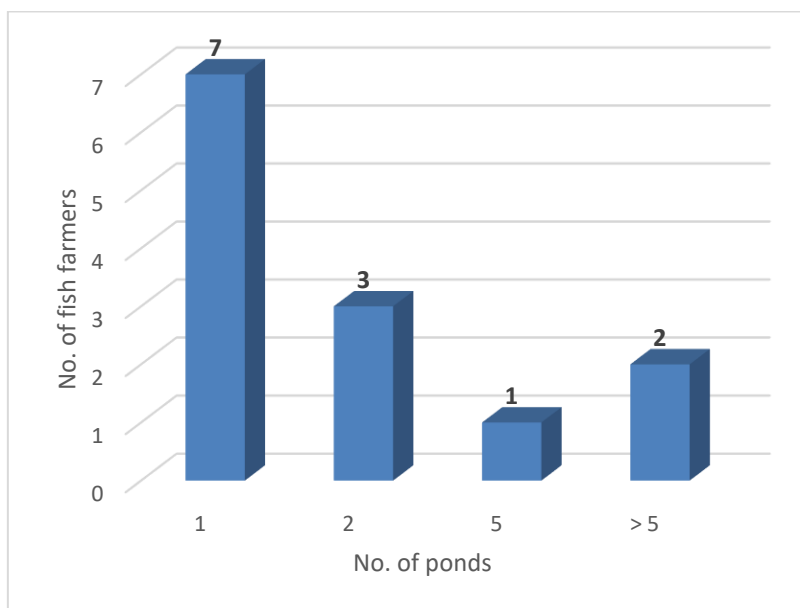
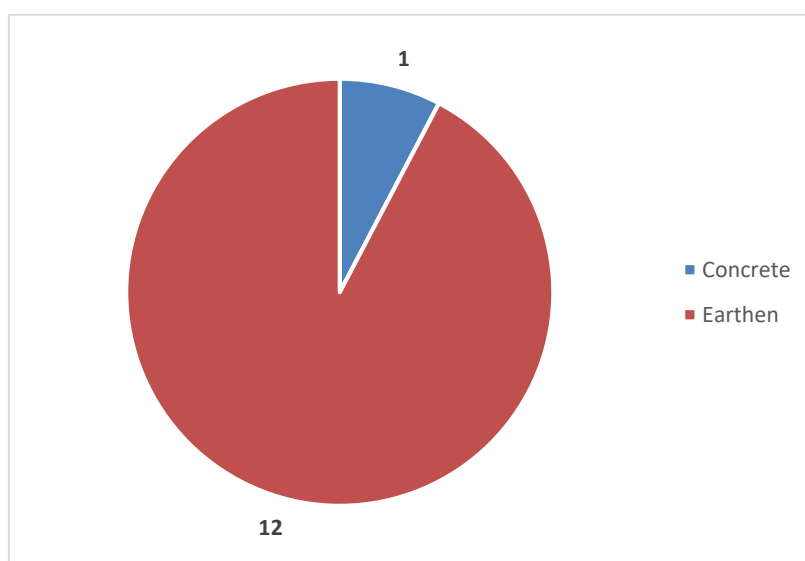


Figure 39: Type of pond



3.2 Production

Most of the fish farmers produced 0.5 ton of fish or less (as shown in Figure 40 below) and the price quoted was 25 or 30 LE / kg.

Figure 40: Fish production (tons)

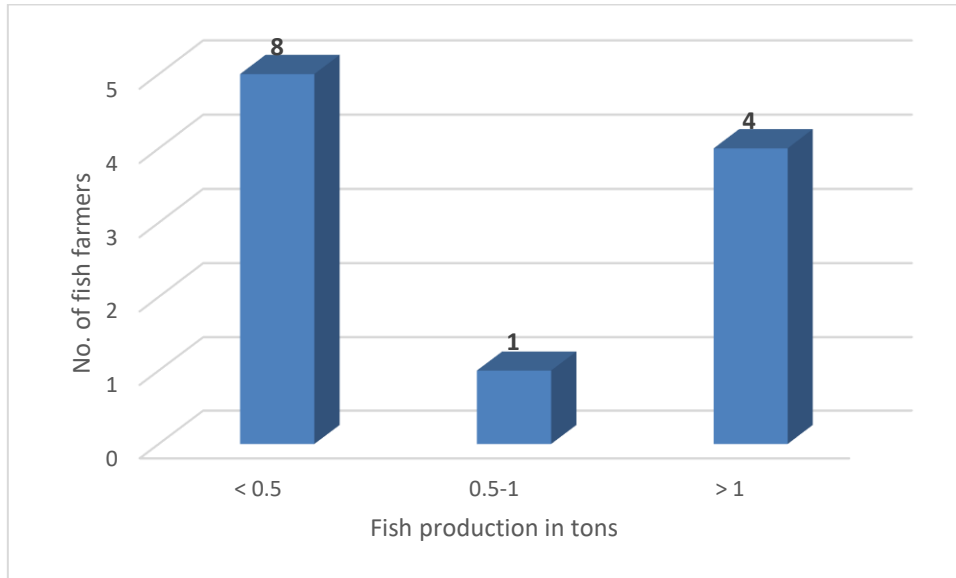
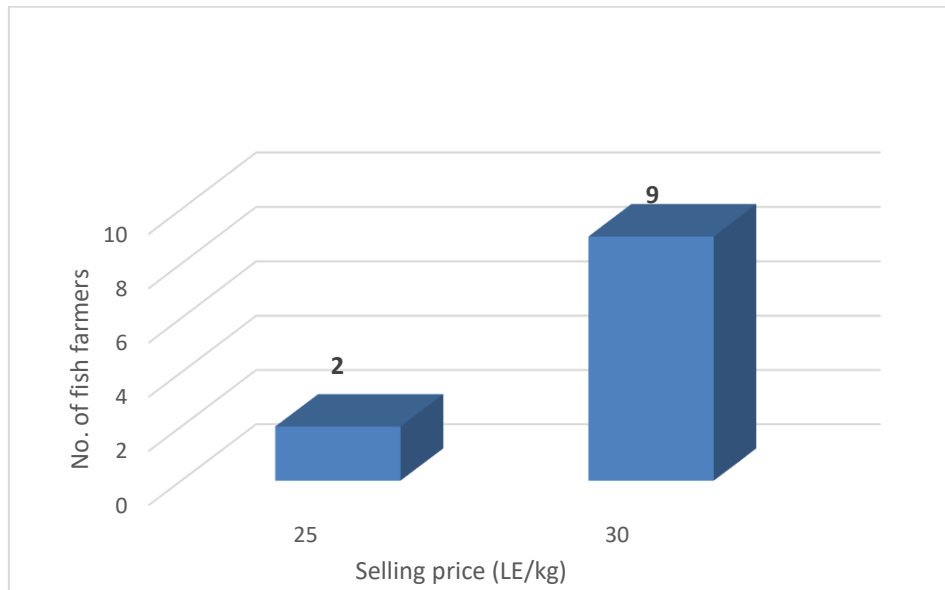


Figure 41: Selling price (LE/kg)



3.3 Employment

Six out of the 13 fish farmers reported having less than 5 full time workers. As for part time workers, most fish farmers stated they did not employ part time workers while 4 mentioned engaging part time workers as shown in Figure 43. None of the fish farmers reported using seasonal workers.

Figure 42: Full time workers

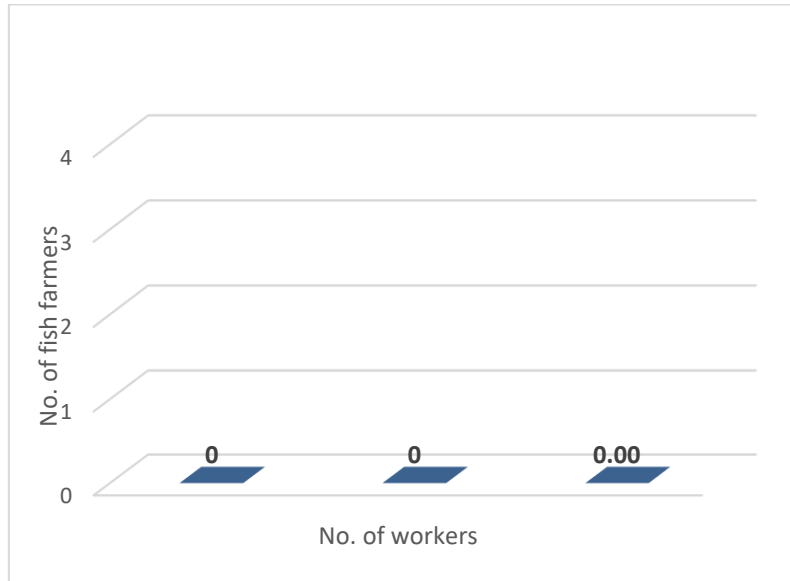
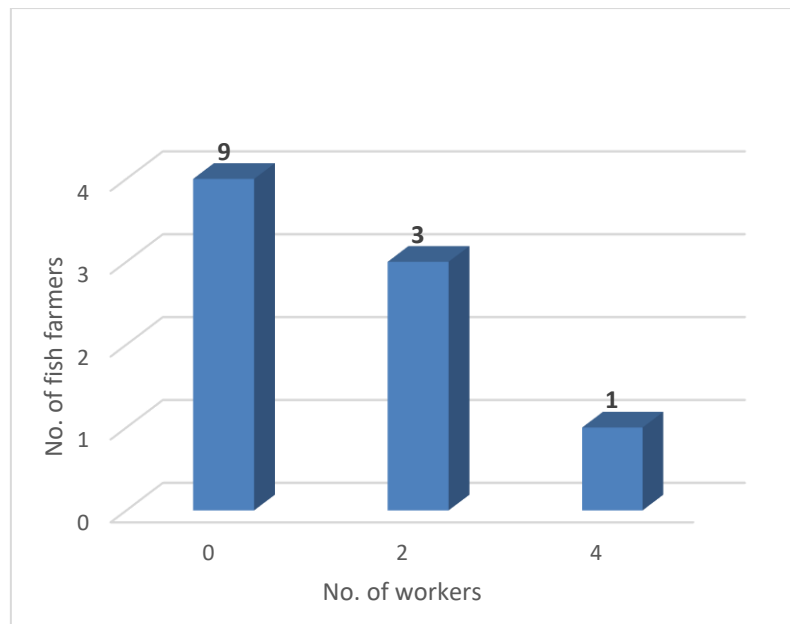


Figure 43: Part time workers



3.4 Fish consumption

Most of the fish farmers who produce fish said they (whether their household or workers) consume part of their fish production.

Figure 44: Self consumption of fish production

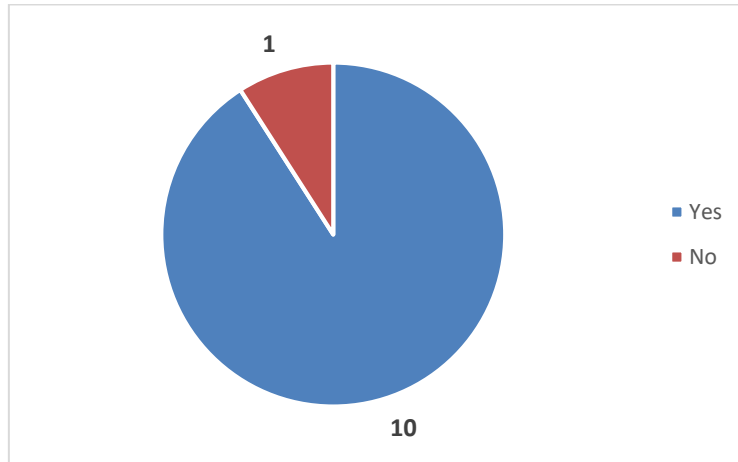
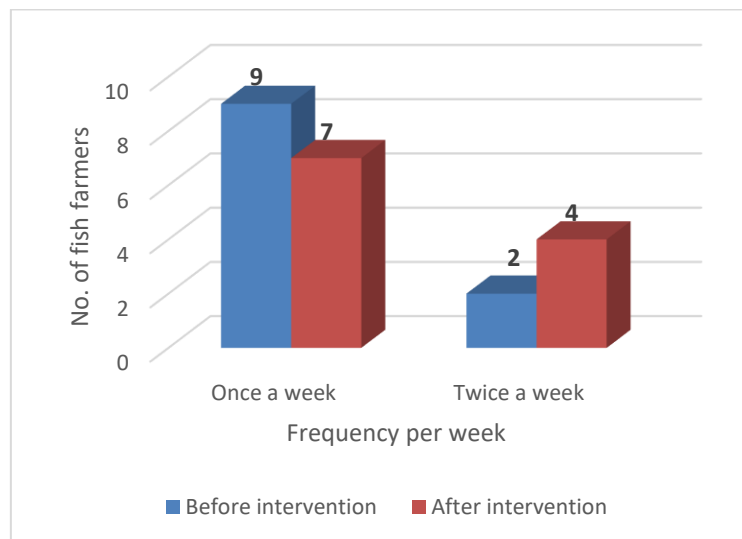
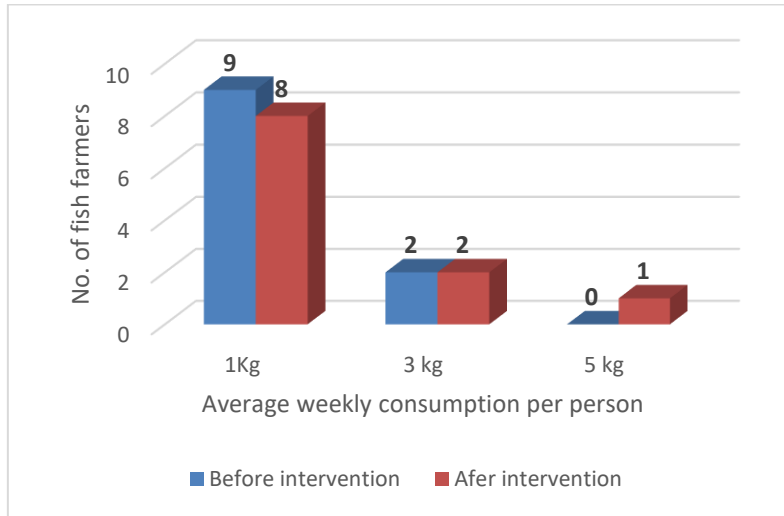


Figure 45: Frequency of fish consumption (before and after intervention)



Only one farmer reported an increase in average weekly fish consumption per person (from 1 kg to 5 kg) while for the remaining farmers mentioned the same consumption before and after the intervention.

Figure 46: Average weekly fish consumption per person (before and after intervention)



Most of the fist farmers sell part of their fish production mainly to neighboring community.

Figure 47: Sales of fish production

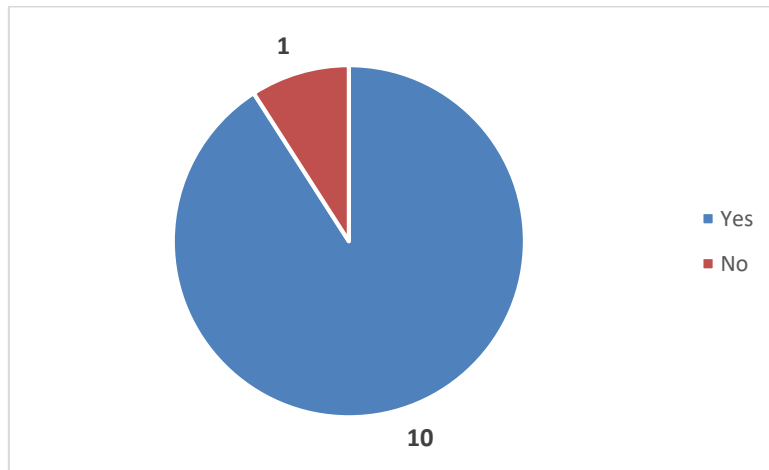
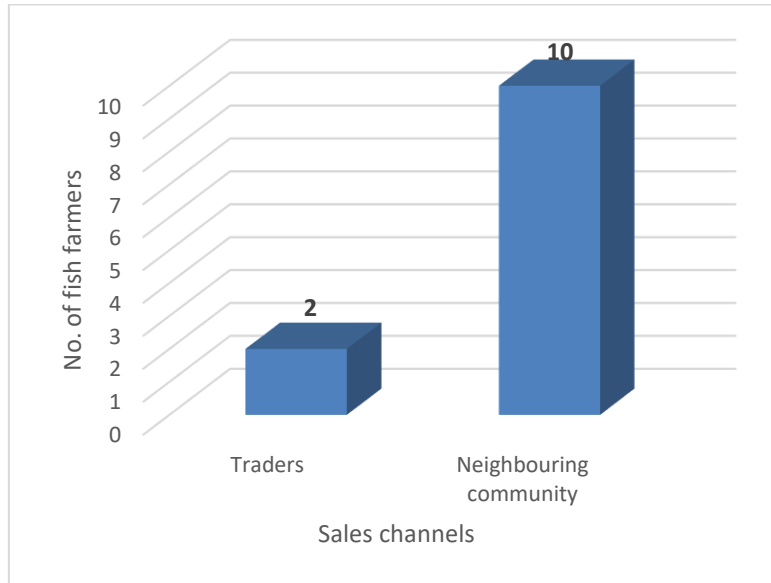
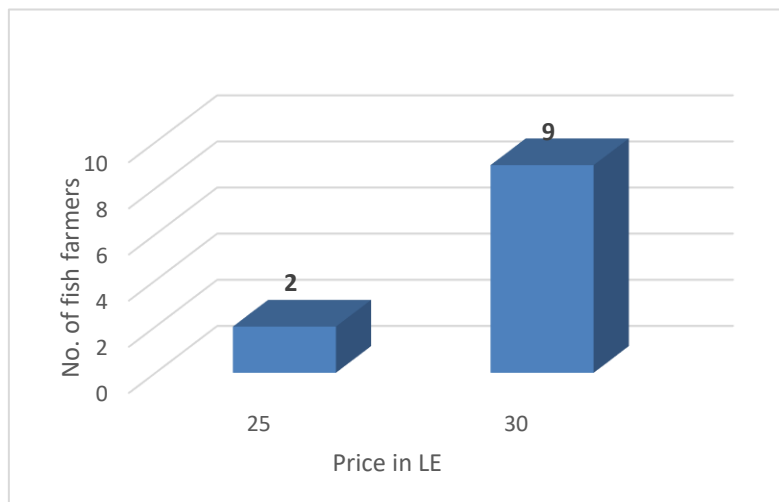


Figure 48: Sales channel



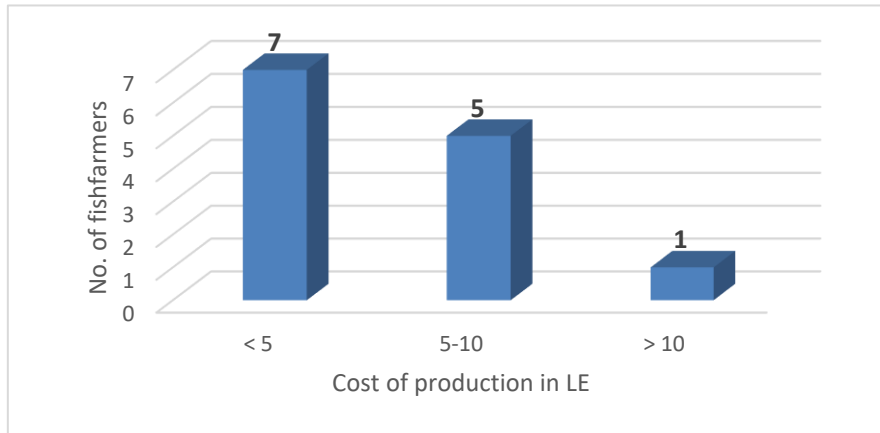
Nine fish farmers reported that the average selling price is LE 30 / kg; only two reported selling price of LE 25.

Figure 49: Average selling price (LE)



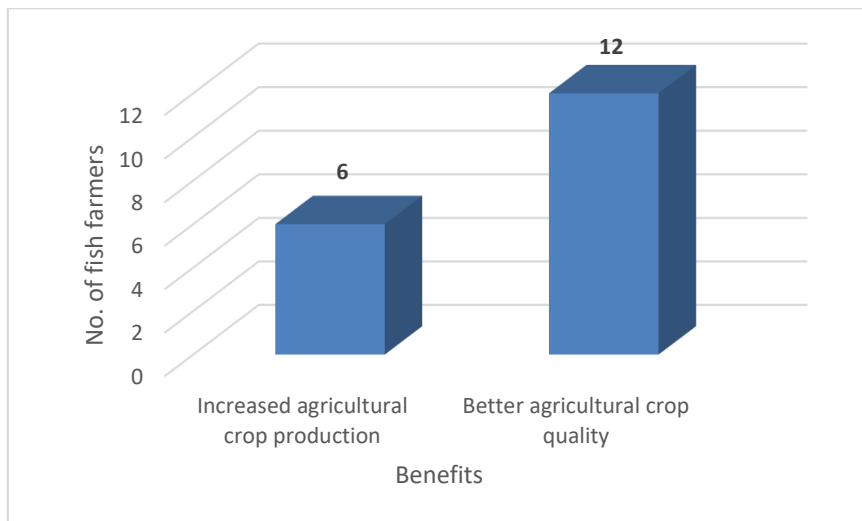
Most fish farmers reported cost of production less than LE 10 / kg. The low cost is due to use of bread as feed.

Figure 50: Cost of production (LE/kg)



All fish farmers mentioned they benefited from the technical assistance provided under the project. Most of them reported better agricultural crop quality while almost half noted increased crop production. One farmer noted that learning about production of fry was useful and another one indicated that learning about fighting weeds, types of fish and fish hatching was beneficial.

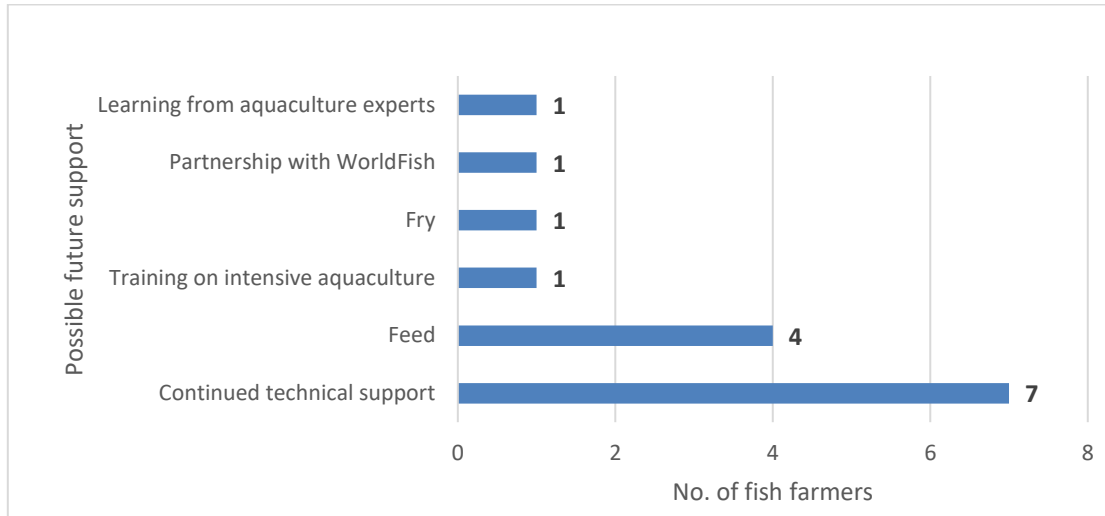
Figure 51: Benefits realized from the intervention



When asked about what other support could be provided in future interventions, most of them indicated continued technical support and support in obtaining feed. Others mentioned forming partnership with WorldFish, support in obtaining fry and training on intensive aquaculture.



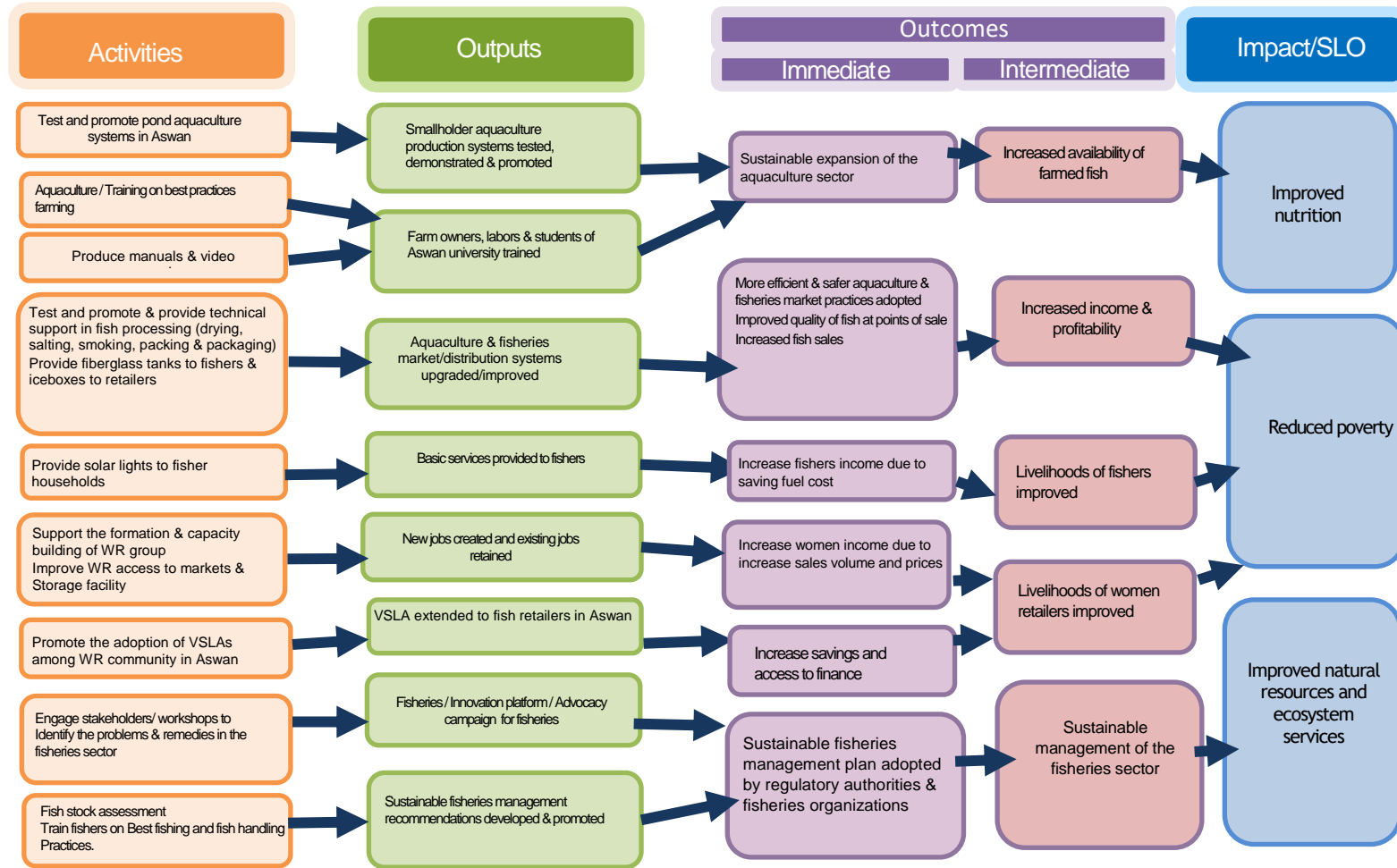
Figure 52: Possible future support





Annex (8) – YEAG Theory of Change (TOC) & Logical Framework

A) YEAG Theory of Change





B) YEAG Logical Framework

Log frame	Youth Employment in Aswan Governorate (YEAG) fisheries and aquaculture extension phase	Ph. 01	CHF 0.55 million	1 July 2017 – 31 May 2019
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Alignment with the Results Framework:

Outcome 2.5: Jobs are created in micro and small enterprises and local industries and unemployment is reduced, in particular for young women and men.

Hierarchy of Objectives	Key Performance Indicators + Baseline Data	Means of Verification	Assumptions & Risks	End-of-Project Status as of 31 May 2019
Impact (Goal)	Impact Indicators			
Improved nutrition of and economic opportunities for poor Egyptians resulting from sustainable expansion and management of the aquaculture and fisheries sectors in Aswan	<ul style="list-style-type: none"> Value added Scale Jobs created 	--	--	<ul style="list-style-type: none"> Outcomes-related status below, along with the sustainability-related results in the Evaluation Report – provide indications/proxies of the project's impact, in terms of: scalability, jobs created and income/value added.
Outcomes	Final Outcome Indicators			
1. Technical and regulatory barriers are overcome in order to foster the adoption of equitable, productive aquaculture production systems by the poor and vulnerable	<ul style="list-style-type: none"> 100 jobs created in small-holder fish farms (Goal: 100 jobs, 20 for women, 80 for men, representing 100 households/570 family members. These are new farms so baseline is 0) Net profits from small-holder fish farms of \$80 k (Goal: net profits of \$80,000/yr. These are new farms so baseline is 0) Inclusive (pro-poor) aquaculture policy framework in place in Aswan (Goal: policies encourage small-holder farmers to develop integrated aquaculture-agriculture systems. Current policies only allow aquaculture in designated zones, excluding small-holder aquaculture) 	<ul style="list-style-type: none"> Project reports Policy statements by regulatory authorities 		<ul style="list-style-type: none"> 79 jobs in fish farm (representing 79 households/450 household members) Net profits from small-holder fish farms = \$27,167 GAFRD chair issued decree to support integrated aqua-agriculture at the national level.



Hierarchy of Objectives	Key Performance Indicators + Baseline Data	Means of Verification	Assumptions & Risks	End-of-Project Status as of 31 May 2019
2. More efficient and safer aquaculture and fisheries market practices adopted by wholesalers, processors and retailers resulting in greater benefits for market actors and consumers	<ul style="list-style-type: none"> 50 jobs created in fish processing Net profits of fish processors increase by 10% (baseline: 18% net profits in 2015) Improved quality of fish in markets (Goal: In target markets systems in place to extend effective shelf-life from the current 24hrs to 3 days) Access to fish improves through wider distribution (Goal: farmed fish available at least 3 days/wk in key villages/markets where farmed fish is currently available only 1 day/wk) Improved livelihood indicators and profitability for informal retailers supported by the project (goal: net profit \$3/day. Current net profits of around \$2/day) 	<ul style="list-style-type: none"> Market quality assessment (QIM score) Consumer study Impact assessment study/report 		<ul style="list-style-type: none"> 64 jobs created in fish processing (14% women & 35% youth). Net profits of fish processors increase by 9% WR reported preserving fish for 5.3 days after the intervention. No figures available Net profit for women retailer is \$4/day
3. Sustainable fisheries management plan adopted for application by regulatory authorities and fisheries organizations	<ul style="list-style-type: none"> Policy recommendations for long-term sustainability of Lake Nasser fishery developed and promoted Increased average size of fish at harvest due to adoption of good practices in test zones 	<ul style="list-style-type: none"> Policy brief Fisheries assessment studies 		<ul style="list-style-type: none"> Developed Lake Management Plan 12% of surveyed fishers reported increased average size of fish due to adoption of good practices.
Outputs (Results)	Output Indicators			
1.1. Small-holder aquaculture production systems tested and demonstrated 1.2. Small-holder aquaculture production systems promoted as a diversification option for poor farmers	<ul style="list-style-type: none"> 50 smallholder farms established creating 100 jobs (Goal: 10 jobs for women and 90 jobs for men. Currently zero) Dietary diversity and income improved in 100 smallholder 	<ul style="list-style-type: none"> Field surveys Impact assessment study/report 	<ul style="list-style-type: none"> Policy changes required Smallholder farmers interested in diversification 	<ul style="list-style-type: none"> 21 farms & 2 tilapia hatcheries established and operational creating 79 jobs. 7 fish farming households (out of 13 surveyed) eat farmed fish 4



Hierarchy of Objectives	Key Performance Indicators + Baseline Data	Means of Verification	Assumptions & Risks	End-of-Project Status as of 31 May 2019
	households (Goal: fish farming households eat farmed fish 2 times per month. Currently zero)			times a month and 4 households eat farmed fish 8 times a month.
<p>2.1. Aquaculture and fisheries market systems upgraded resulting in improved fish quality at point of sale and economic empowerment of poor informal retailers</p> <p>2.2. Opportunities created for increasing fish sales, for improved distribution systems and value addition through processing</p>	<ul style="list-style-type: none"> ▪ 100 jobs retained in fish retailing (100 women, 570 household members) and 50 jobs created in fish processing (35 for women, 15 for men, total 285 household members) ▪ 100 women retailers and 20 wholesalers trained and using best practices (baseline 0) ▪ VSLA extended to fish retailers in Aswan ▪ Aswan fish promotion campaign launched (baseline 0) ▪ 10 fish processing operations supported through product development, training and business mentoring (baseline 0, target 50 jobs, 30% female) 	<ul style="list-style-type: none"> ▪ Project reports ▪ Consumer study ▪ Impact assessment study/report 	<ul style="list-style-type: none"> ▪ Value chain actors adopt recommended practices 	<ul style="list-style-type: none"> ▪ 127 jobs retained in fish retailing (all women) and 64 jobs created in fish processing (9 for women, 55 for men) ▪ 97 WR trained on and using fish handling best practices, no wholesalers were trained. ▪ 90 WR trained on VSLA & 49 WR adopted VSLA. Distributed loans 9480EGP to 21 WR. ▪ Aswan fish promotion campaign launched. ▪ 22 fish processing operations received support (7 vacuum and smoking and 15 salted fish processing operations received tanks) (64 jobs; 14% female)
<p>3.1. Fisheries stock assessments completed for Lake Nasser and Nile River.</p> <p>3.2. Sustainable fisheries management recommendations developed and promoted.</p> <p>3.3. Livelihoods of fishers improved through provision of basic services</p>	<ul style="list-style-type: none"> ▪ Stock assessment reports (baseline 0; target 2 reports) ▪ Policy briefs developed, workshops held with key stakeholders (baseline 0; 2 policy briefs) ▪ Fisheries organizations scale up pilot-scale livelihood interventions (Baseline: 24 fishing camps have solar lighting. Target: 100 fishing camps have solar lighting) 	<ul style="list-style-type: none"> ▪ Reports ▪ Policy briefs ▪ Workshop reports ▪ Project reports 	<ul style="list-style-type: none"> ▪ Fisheries management recommendations fit current government policies 	<ul style="list-style-type: none"> ▪ Stock assessment study conducted; and 2 reports produced. ▪ 1 policy brief developed (2 workshops held with key stakeholders) ▪ 84 fishing camps have solar panels (Baseline = 24; project delivered 50 solar panels; and fisheries organizations provided 10 solar panels)



Annex (9) – YEAG – Project Extension Plan

1 January – 31 March 2019

C) SDC Approval of the Extension

Dr. Harison Charo Karisa
Country Director, Egypt and Nigeria
World Fish Egypt Office
18 (B) El Marashely Str. 11211, Zamalek
Cairo, Egypt

Cairo, 12 December, 2018

Dear Dr. Karisa,

Subject: No cost extension of “Youth Employment in Aswan Governorate; Extension of fisheries and aquaculture interventions (YEAG)”

We would like to reiterate our appreciation for our ongoing cooperation. Reference is made to your letter dating December 11th, 2018 requesting a no cost extension for three months to the end of March 2019.

We are glad to inform you that SDC has approved a no-cost extension for 3 (three) months to the end of March 2019, to allow sufficient time to deliver uncompleted interventions including:

- Best fishing and fish handling practice for fishers of capacity building of 1000 fishers;
- 50 jobs created in fish farms and 100 jobs retained in fish retail and food service;
- Promoting of aquaculture development in Aswan result in the establishment of 50 new farms;
- Achieving the 100% target planned for women retailer training on best management practices for post-harvest handling;

in addition to the project final report and impact evaluation.

Kind regards



D) Extension Plan of Activities

Fisheries management	2019		
	January	February	March
Fisheries / Training on best practices handling and transportation	Continue training to achieve the 1000 fishermen target & distribute 500 copies of best fishing and fish handling practice in fish camps		Final report and evaluation of the training
Aquaculture & culture-based fisheries			
Promote pond aquaculture system	Strategies to post aquaculture in Aswan	training to fish farmers	follow up and data collection
Provide technical support to existing farmers	Increasing the number of fish farms in Aswan to 50 & provide technical support to existing fish farms		Continue harvest the existing fish farms-Final report for Aswan Aquaculture
Aquaculture / Tilapia propagation in Haps		Provide new fish farms with haps	
Provide technical support to existing fish processors, with salted fish processors testing innovative preservation methods, Hire processor consultant 4 days a month	Evaluate the salting containers product under hygiene condition (which were distributed to fishers)		
Promote the scale up of production of fresh fish products such as kofta and fish fingers		To be part of grand competition between women retailers trained by ECA in hotel with media coverage	
Promote fish smoking for several species such as tilapia and raya and tiger fish and sun-drying (mainly tilapia and other species). Hire processor consultant 4 days a month	Disseminate the results of fish smoking experiment to be adopted by youth and fish processors in cooperation with ABA		
Promote cost-effective and suitable packaging for salted fish	disseminate the practice of vacuum packaging of salted fish after successful testing, follow up with the producers		
Improve handling of product to extend shelf life	Through fishers training (see 1.3)		
Test and promote fish meal production using processing waste through (value added)	Promote the value addition of fish skin which have many potentials in Aswan		
Gender Activities			



Governorate-level Fish Value Chain Development' including use of ice boxes, fish filleting and improving access to credit	Follow up with women retailers who received ice boxes		Final report
Market-level Women's Economic Empowerment'	Coordinate between women retailers and local traders, Increasing the number of VSLA groups in Aswan		Graduation ceremony for the first groups, Final report
Training and workshop for Gender	Training women on fish filleting		Final report
Training for gender sensitive business and entrepreneurial models for smallholder farmers and poor value chain actors.	Training on entrepreneurial models for women retailers		Final report
Impact Assessment	Call of interest, contracting	Planning work, & field visits	Data entry and reporting



Annex (10) – Beneficiaries Testimonials

This annex includes testimonials of beneficiaries interviewed by the Evaluation Team.

A) Fisher Processors

2. "WorldFish activities were useful for fish: providing solar panels and training on fishing and fish handling. Solar panels are good and if widely implemented we could ban generators from the Lake because they use it to fish by electrocution which is harmful. If solar panels are used there will be no need for generators."
3. "Dr. Olfat contacted me and I took a study tour with WF, in Cairo and Alexandria. We went as a group of 15 two years ago, and saw the salted fish. I saw other ideas for *ringa* with carrots and fillets. The idea of the factory is good and could be easily implemented. We already sell fish in tin boxes, but I saw other ideas. I did not know about vacuum before; I am thinking of buying vacuum machine; it is not expensive (EGP40,000) and I have enough money and have my license. I took some fish and did some with vacuum and went with Dr. Olfat to someone to do tests to know the expiry duration and they lasted up to 9 months. I will package the fish and brand it with my name so that no one can use it and it becomes well known. I will sell it packages and want to brand my fish making standard product and maintain quality. I will start with Carrefour and Hyper, but they will ask for a sample. There is no one working in this vacuum in Aswan; no one has started yet. Some of those who went on the study tour do not have a license – as only 7-8 are licensed in industrial zones out of 60 traders. I will start with Raya market in Aswan and then I will go to the headquarters of the supermarkets and they will distribute it all over the country. We will be able to make high revenues because of the sales volume. After doing the vacuum and getting all the approvals, I could explore exporting to countries interested in salted fish."

B) Women

1. "We were scared in the beginning to start the project. Our project involves six women - two deboning and cleaning the fish, two doing the filleting, and two cooking. The project supported us through training on VSLA and cleaning, filleting and cooking. Now we generate EGP 1,200 per month. We only knew how to cook fish traditionally. Four of us funded the project through VSLA loans; and the other two work for wages. I used to make fried or grilled fish only. Now I can do kofta and tawajan. We were supported by the project staff. The course was very useful in seasoning – people who taste the fish say it is different. We used to cook to order 2-3 times a day. Now we do 25 kg a day. We were scared in the beginning as we did not know where to start. One of us who is a university student, told us to set up a Facebook page and we get customers online or through their friends. My brother is a fisherman, and his colleagues were interested in getting meals which taste better and are cleaner. We also identified problems for students at dorms who need to find good meals; now they also order from us." (Woman retailer).
2. "I do filleting of salted fish (*feseekh*), which is more profitable than regular *feseekh*. I benefitted from the project management course which helped me in managing my finances (as well as my



- household) in a better way. I now allocate fees for managing the project separately from my household money." (Woman retailer).
3. "It is difficult to save at home. If we save, we spend the money when we need it. The VSLA is good because it forces me to save. I can take 3 times my share and repay over 3 months." (VSLA member).
 4. "I took the training on salting fish. I will use the VSLA loan to get fish and prepare for Sham El-Nesseem. The person who gave the salting course offered to supply us with fish." (Woman retailer).
 5. "I used to sell fish, but could not sell all the fish on the same day. I used to give the unsold fish to my neighbours to store; but they were not always happy to keep the fish for them. The project provided me with an icebox. I also learnt how to make fillets, which occupy less space in the icebox, and I can claim a higher price for my product." (Woman retailer).
 6. "I am going to open a shop in Al-Hassa. I used to cook in my kitchen, because I have a big one, but it was a mess. So my husband told me it was better to open a shop. He bought me a shop. My husband is a contractor. We are going to do advertising on Facebook and offer delivery through tuk-tuk. We are four cooking and two do the filleting. During school holidays, there are no students so business could slow down. We used to make 10 orders a day. We calculated the cost of running a shop. We will start working at the beginning without wages. My husband is very supportive and will fund the project until we start making money and then we will repay him in instalments." (Woman retailer)¹⁸.
 7. "When I attended the filleting and cooking courses, I started doing fillets. Four of us got together and bought a refrigerator. When women work, they feel different. We have also formed a VSLA group and started selling fillet in Kom Ombo; others started selling *feseekh*. Most of the group are divorced and widowed women so we need the extra income. I am now able to give my children lessons in all subjects." (Woman retailer).
 8. "I am from Komo Ombo. We used to make handicrafts before fish. We have more work in winter. We have been volunteers in Nahr El-Khair Association, and we learned about VSLA and fish. We added to our income from handicraft work." (Woman retailer).
 9. "We formed a VSLA group of 25 members. We used to sell fish only, but because of the project we now sell cooked fish through shops. I work with another woman who learned through the project how to debone fish, and I also learnt fish seasoning. I am thinking of opening a restaurant." (Woman retailer).
 10. "The project management training was very useful: I learned how to separate funds for various activities and how to calculate profit and loss. Before that, I did not calculate the cost of fish and how much I make. Thanks to the training, my income increased from EGP 50-60 to EGP 300." (Woman retailer).
 11. "I used to sell fish now I make fillet. A group of us got together and we get fish from a trader and we save on transportation." (Woman retailer).

¹⁸ The Evaluation Team learned that this woman opened the shop after the interview.



12. "We took the fillet training. We put the fish in Styrofoam boxes, and we put them in the mini-market of a friend of us. Our families encouraged us because we work from home." (Woman retailer).
13. "After I learned how to make fillet and cook fish, my husband – who is a fisher – started to fish more, and supported me when I got a loan and he gives me the money to repay the loan." (Woman retailer).
14. "We [the women] did not know each other, we come from different parts of the village and through the project we got together and were able to communicate better and exchange ideas." (Woman retailer).
15. "I did not attend the cooking training; but I learned from my colleagues how to cook different recipes for my home." (Woman retailer).
16. "I am from Garf Hussein, I used to get the fish and sell it here [in Cobania]. We used to open the fish and clean it with a cloth. I asked the project staff to teach us to do filleting because it will be easier for the children to eat it, as they could not eat the fish because of the bones; also, my mother-in-law who is blind could not eat it. I had to remove the bones for all of them so that they can eat it. The project arranged this training. Now they can all eat fish easily." (Woman retailer).
17. "Before, I used to sell the fish that my sons catch. I used weighing scales of my friend as I do not have scales. I cooperated with a colleague from the group and now we make fillet and sell it." (Woman retailer).
18. "I have a small shop. The project management training helped me in running my shop. I did not know how much money I was making. Now I record everything; and I know that the shop is generating money, but I was mismanaging." (VSLA member).
19. "We used to make leather products from goats. We recognized [fish leather tanning] is an opportunity as this is something new in Aswan, this is why we were interested. The training was good, but the product in the end was not as good as the one the trainer showed us. Also, the chemicals she used are not available and are very expensive. Dr. Olfat got us some tanned leather from Cairo which is cheaper, and we used it together with goat leather to make leather products. However, once the material is finished, we will stop." (Woman who received fish leather tanning training).

C) Youth

1. "The training helped us connect with each other and network which was a good thing; for example, one of our colleagues told me he wants to establish a project and invited me to join him." (Youth trainee).
2. "At the beginning of the training, I did not expect to start a project. The training was useful in highlighting the idea of leather tanning. I worked with 5 others (only one of them took the training course with me while the others learnt about it from us) because it is too much for 1 person to work on alone." (Youth trainee).



3. "I took the course in smoking. I was interested in smoking because salting is not healthy. I am studying aquaculture in Aswan, but I come from Dakahliya; I am thinking of smoking mullet fish from aquaculture farms there. I am still studying the idea of the project, and hopefully I could start up my own business and apply what I have learnt in the training." (Youth trainee).

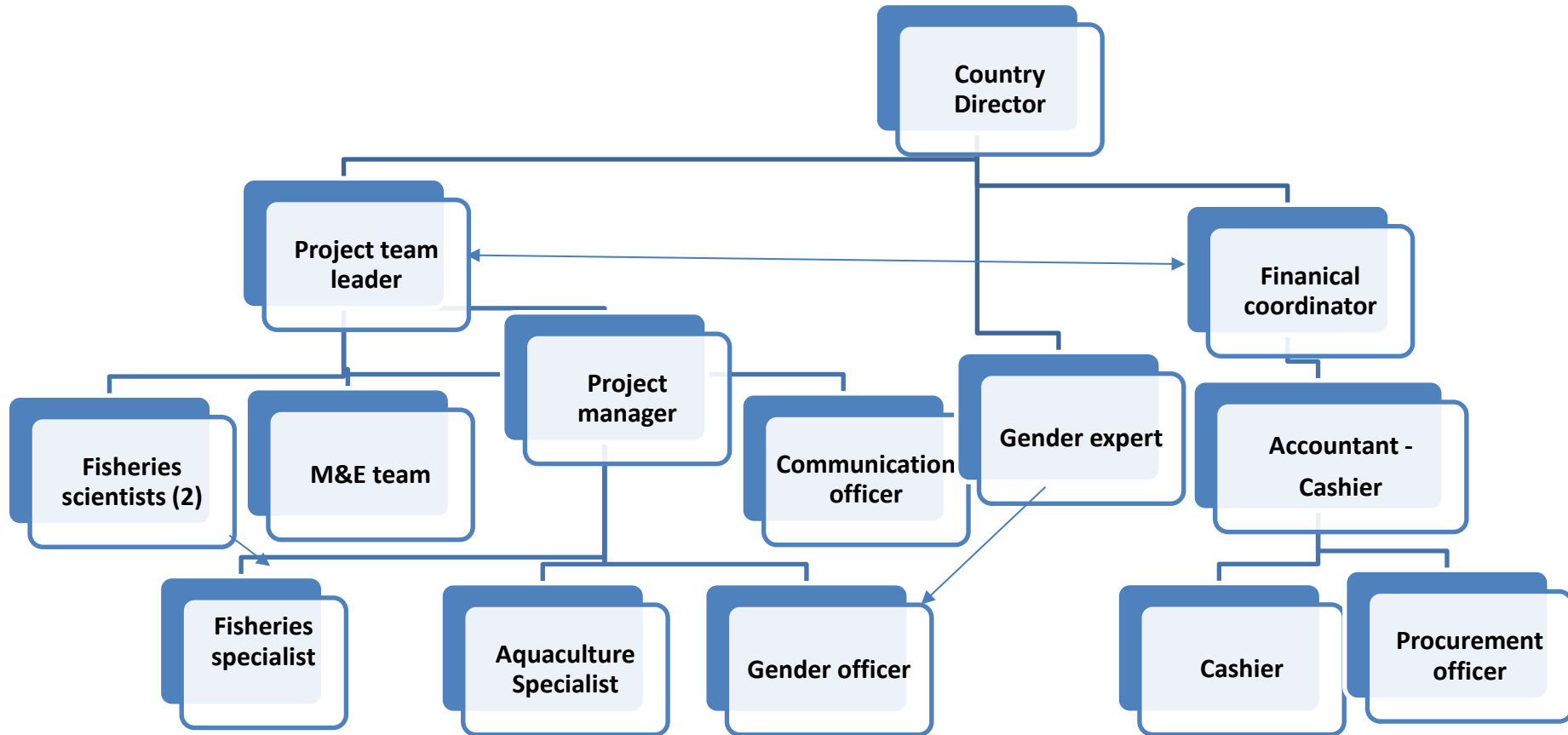
D) Fish Farmers

1. "I have been a fisherman and knew nothing about aquaculture. I was approached by WorldFish and took the aquaculture training. I did not expect the benefit from the one-week training. I developed an integrated farm and received technical support from WorldFish experts and professionals every week. The impact on the crop was impressive. The crop does not cost 1/2 the previous cost. The feddan used to take 6-7 packs of fertilizer. Now 1/2 feddan takes 1 pack of fertilizer because of the fertilizer coming from the pond – the land benefits from fish waste. I cultivate onions and wheat. The crop is larger in size compared to what I used to have before the pond and compared to my neighbors. I got unisex hormone from WorldFish and I will use it. Next steps for me is to build a water reservoir, produce fish, raise ducks and I can use the fish waste to feed the ducks. I would like to expand in aquaculture and establish more ponds. I could expand in nearby land which is not suitable for agriculture. I am hoping to serve as a demo to others so that they can establish their own fish farms." (Fish farmer).
2. "Dr. Gamal and Dr. Olfat saw the place and told us to clean the pond and get good fry. They got us mothers and fry and made sure we got no other fry. The production is now higher. We want to increase the number of ponds and create jobs for local people. We have an empty piece of land. We need to cover the cost of digging 2 ponds. We have the technical expertise, experience, training, and fry. we are in a good position to support others and promote aquaculture. We could breed other fish and compete with fish from Nasser Lake." (Fish farmer).
3. "WorldFish contacted me, and they came and saw the farm and advised me to take the course in Abbassa. I took the course in October, and it was very useful." (Fish farmer).



Annex (11) – YEAG Organization & Management

A) Project organization chart





B) YEAG – Steering Committee Membership

No.	Name	Position
1.	Prof. Mona Mehrez	Vice Minister of Agriculture for Livestock, Fisheries and Poultry
2.	Ayman Ammar	Chair (General Authority for Fisheries Resource Development)
3.	Petra Widmer	Deputy Director of Cooperation (SDC)
4.	Yasmine Khaled Aly	National Programme Officer (SDC)
5.	Ismail Frioud	Field Coordinator, Upper Egypt (SDC)
6.	Gareth Johnstone	General Director (WorldFish)
7.	Harrison Karisa	Country Director (WorldFish)
8.	Mohamed El-Feky	Chairman (Cooperative Union of Egyptian Water Resources)
9.	Ahmed Barrania	Consultant of Cooperative Union of Egyptian Water Resources
10.	Eng. Khaled Hasaneen	GAFRD (Manager of Lake Nasser)
11.	Dr. Mohamed El-Shahat	Chairman of Lake Nasser Development Authority



C) Functions & Responsibilities of YEAG Staff

No.		Position	Main Responsibilities
1	WF	Country director	<ul style="list-style-type: none"> - High levels follow up with project manager. - Attend donor meetings - Troubleshooting on strategic direction.
2		Project team leader	<ul style="list-style-type: none"> - Leads research activities on the value chain of fisheries to identify challenges, employment and marketing opportunities. - Develops appropriate training material and leads training target groups. - Ensures dissemination of best practices (publications, flyers). - Leads periodical program reviews. - Ensures coherence between this project and other projects
3		Project Manager	<ul style="list-style-type: none"> - Project management, guidance and direction to project staff. - Leads the development and implementation of appropriate models/interventions for all fisheries and aquaculture activities. - Develops appropriate training material and leads training of target groups. - Participate in value chain studies in cooperation with senior scientist and advisor. - Ensures dissemination of best practices.
4		2 Fisheries Scientist	<ul style="list-style-type: none"> - Carry out stock assessment study for economic fish species and fish sample collection in Lake Nasser according to study plan. - Draft inputs to the progress and completion reports according to project requirements. - Participate in stock assessment study team meetings and contribute ideas and suggestions to the design and implementation process of the study. - Conduct data analyses and publish scientific papers. - Provide reports, regular updates of study implementation progress and improvement suggestions to the management as appropriate.
5		Aquaculture specialist	<ul style="list-style-type: none"> - Identify existing aquaculture sector constrains and set up strategy to overcome those issues. - Provide technical support to fish farmers and entrepreneur. - Assess training needs of project operators. - Write report to team leader as needed.
6		Fisheries Specialist	<ul style="list-style-type: none"> - Identify fisheries sector constrains and set up strategy to overcome those issues. - Provide technical support to fishers and entrepreneur. - Assess training needs of project operators. - Write report to team leader as needed.
7		Gender Officer	<ul style="list-style-type: none"> - Identify WRs needs and set up strategy to improve their working environment. - Provide technical support to WRs and fish processors.



No.		Position	Main Responsibilities
			<ul style="list-style-type: none"> - Assess training needs of project operators. - Write report to team leader as needed.
8		Finance and Administration manager	<ul style="list-style-type: none"> - Supervise all the financial management and administrative aspects of the project - Participate in project budget preparation and revise one if needed - Participate with HQ staff in financial report preparation as per donors request Supervise the procurement process of project - Participate with the external auditors and contractor periodic visit review - Draft the management comments of the audit report and share it with HQ and external auditors.
9		Finance and procurement team	<ul style="list-style-type: none"> - Create the PR in the system and complete the procurement process according to WF guidelines in the operating system, - Post the transactions into the ERP system - Liaise with the consultants to make sure that the deliverables are available and completed as per the contractual arrangements - Arrange travel and accommodation for the staff and consultant and workshop preparation - Keep the record of petty cash and check books
10	WF	HR team	<ul style="list-style-type: none"> - Manages recruitment process with HR - Reports on attendance and absences - Provide support to staff and supervisors - Handle all the administrative affairs of the staff - Keep records of medical claims form of the staff - Report of staff performance (PERFORMANCE AGREEMENT FORM)
11		Communication officer	<ul style="list-style-type: none"> - Develop messages in consultation with the project team - Document project activities - Assist in conducting awareness raising campaign.



Annex (12) – YEAG Communication Activities

1. Videos

1.1 Lake Nasser Fishery situation

<https://www.worldfishcenter.org/video/resource-management-and-training-supports-youth-employment-egypts-lake-nasser>

1.2 Short video of Lake Nasser trainees

<https://www.youtube.com/watch?v=2CPRa8m0RYY&feature=youtu.be>

<https://www.facebook.com/worldfishcenter/>

1.3 Aquaculture news in TV and media

<https://youtu.be/oHCGOBQ8BGs>

<https://www.youm7.com/4036201>

1.4 Gender/ support WRs

<https://youtu.be/SoSqMixXNJw>

1.5 Fisheries

<https://youtu.be/w8AZuU8zNTY>

https://youtu.be/kArce-5YT_4

1.6 Dr. Harrison Karisa, #WorldFish Country Director for Egypt and Nigeria, is presenting this week in side events to the Blue Economy Conference 2018 about the Youth Employment in Aswan Governorate (YEAG) project. Coming to an end this year, the project has many success stories to share!

- <http://bit.ly/2TMsjmz>

In this video, a fisher in Lake Nasser, Egypt talks about the significance of handling and freezing methods to reduce postharvest losses. More videos about the YEAG project are available on the WorldFish YouTube channel! <http://bit.ly/2PUNa9e>

2. News Articles

2.1 El Dostor

- <https://www.dostor.org/2288355>

2.2 Masrawy

- http://www.masrawy.com/news/news_regions/details/2018/8/15/1411516/%D8%A8%D8%A7%D9%84%D8%B5%D9%88%D8%B1-%D9%85%D8%AD%D8%A7%D9%81%D8%B8-%D8%A3%D8%B3%D9%88%D8%A7%D9%86-%D9%88%D9%86%D8%A7%D8%A6%D8%A8-%D9%88%D8%B2%D9%8A%D8%B1-%D8%A7%D9%84%D8%B2%D8%B1%D8%A7%D8%B9%D8%A9



[%D9%8A%D9%81%D8%AA%D8%AA%D8%AD%D8%A7-%D9%88%D8%B1%D8%B4%D8%A9-%D8%B9%D9%85%D9%84-%D8%A5%D8%AF%D8%A7%D8%B1%D8%A9-%D8%A7%D9%84%D9%85%D8%B5%D8%A7%D9%8A%D8%AF](#)

- http://www.masrawy.com/news/news_regions/details/2018/8/15/1411516/%D8%A8%D8%A7%D9%84%D8%B5%D9%88%D8%B1-%D9%85%D8%AD%D8%A7%D9%81%D8%B8-%D8%A3%D8%B3%D9%88%D8%A7%D9%86-%D9%88%D9%86%D8%A7%D8%A6%D8%A8-%D9%88%D8%B2%D9%8A%D8%B1-%D8%A7%D9%84%D8%B2%D8%B1%D8%A7%D8%B9%D8%A9-%D9%8A%D9%81%D8%AA%D8%AA%D8%AD%D8%A7-%D9%88%D8%B1%D8%B4%D8%A9-%D8%B9%D9%85%D9%84-%D8%A5%D8%AF%D8%A7%D8%B1%D8%A9-%D8%A7%D9%84%D9%85%D8%B5%D8%A7%D9%8A%D8%AF

2.3 Sada Elbalad News

- <http://www.elbalad.news/show.aspx?id=3427372>
- <https://www.elbalad.news/3427372>
- <https://www.elbalad.news/3427823>

2.4 Al-Ahram

- <http://gate.ahram.org.eg/News/2002194.aspx>

2.5 Ahram El Youm

- <http://ahramalyoum.com/2018/08/16/%D9%86%D8%A7%D8%A6%D8%A8-%D9%88%D8%B2%D9%8A%D8%B1-%D8%A7%D9%84%D8%B2%D8%B1%D8%A7%D8%B9%D8%A9-%D9%88%D9%85%D8%AD%D8%A7%D9%81%D8%B8-%D8%A3%D8%B3%D9%88%D8%A7%D9%86-%D9%8A%D8%AA%D9%81%D9%82%D8%AF%D8%A7/>

2.6 El Bayan

- <http://www.elbyan.com/%D9%85%D8%AD%D8%B1%D8%B2-%D9%88%D8%AD%D8%AC%D8%A7%D8%B2%D9%8A-%D9%8A%D8%AA%D9%81%D9%82%D8%AF%D8%A7%D9%86-%D9%85%D8%B4%D8%B1%D9%88%D8%B9%D8%A7%D8%AA-%D8%A7%D9%84%D9%82%D9%8A%D9%85%D8%A9-%D8%A7/>



2.7 Youm7

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3. Publications

3.1 YEAG Project Lake Nasser Management Plan

- http://pubs.iclarm.net/resource_centre/2018-20.pdf

3.2 YEAG Project Lake Nasser Management Plan Factsheet

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3.3 YEAG Project Lake Nasser Policy Brief

- <https://www.worldfishcenter.org/content/stock-assessment-lake-nasser-fishery-policy-brief-better-resource-use>

3.4 Aquaculture Technologies and Best Management Practices Training Program Factsheet

- <https://www.worldfishcenter.org/content/aquaculture-technologies-and-best-management-practices-training-program>

3.5 Best Fishing and Handling Practice Arabic Manual

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Project documents:

- Theory of Change
- Logical Framework
- YEAG Proposal
- Semi-annual Report
- Annual Report
- Minutes of Management Meetings



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Youth Employment in Aswan Governorate; Extension of fisheries and aquaculture interventions (YEAG) project is an eighteen-month intervention led by WorldFish and supported by the Swiss Agency for Development and Cooperation (SDC). The project, which was implemented during the period July 2017 – December 2018, and later extended till end of May 2019, aimed to achieve improved nutrition of and economic opportunities for poor Egyptians resulting from sustainable expansion and management of the aquaculture and fisheries sectors in Aswan. This end-term evaluation was conducted to identify and assess the results achieved by WorldFish and partners during the project life at outcome and output levels and draw lessons and develop recommendations that may help in improving the selection, enhancing the design and implementation of similar future projects and activities in the country.