PROMOTING A SUSTAINABLE AND FOOD SECURE WORLD (PROSPER)

FINAL EVALUATION - REPORT

Final Report

SUBMITTED TO:
CARE, EGYPT

SUBMITTED BY:
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I - INTRODUCTION AND BACKGROUND

A. OVERVIEW OF THE PROJECT AND CONTEXT:

CARE and Cargill have built on their fifty years partnership in implementing PROSPER Project: Promoting a Sustainable and Food Secure World in seven countries. Two phases of the project have already been implemented during globally and in Egypt. In Egypt, the Phase II work called the Origination and Development of Soya Bean Smallholder Farmers project. The project addressed the food and livelihood security of farming families in the three governorates of Minia, Behera and Beni Suef, and ended in July, 2017.

CARE and Cargill has launched a third phase of the project in 2018. The goal for Phase III is to create a more inclusive socio-economic environment along the soybean value chain for small-scale farmers in Egypt. The project targeted 3000 farmers.

PROJECT OBJECTIVES AND OUTCOMES:

Objective 1 - Increase small-scale farmers’ income, guarding them against market price changes:

Outcome 1.1 Soybeans production cost reduction strategies disseminated within small-scale soybeans farmers
Outcome 1.2 Target small-scale soybeans farmers adopted high production input varieties and best practices propagated for by PROSPER.
Outcome 1.3 Accessibility to diversified marketing channels expanded for small-scale soybeans farmers
Outcome 1.4 Outcome 4: Broadening women engagement in increasing soybeans aggregate target governorates demand

Objective 2 - Foster good nutrition practices and contribute to the achievement of food security:

Outcome 2.1 Transformation in attitudes leaning towards good nutrition and betterment of eating habits

Objective 3 - Foster a conducive and enabling environment for agricultural cooperatives and farmers’ associations

Outcome 3.1 Strengthening capacities of agricultural farmers’ associations and enhancing their performance of their roles in effectively addressing their cultural, social and economic roles’ expectations meeting local needs, emphasizing effective technical and marketing services assistance

The study subject of this report is documenting the methodology, findings, and recommendations of the final evaluation process of PROSPER Project.
II – EVALUATION DESIGN AND METHODOLOGY

A. OBJECTIVES AND SCOPE THE EVALUATION:

The evaluation focused on providing an overview of the project’s relevance, efficiency, effectiveness, impact and sustainability. The evaluation assessed the status of achievement of project indicators, identified implementation challenges, derived lessons learned and recommendations for future phases of the project.

In order to meet the mentioned objectives, the evaluation has:

- Assessed the project’s performance and achievements vis-à-vis the project’s overall objectives, the project indicators in the project’s proposal.
- Assessed the internal and external factors that have affected the achievement of project objectives and goal.
- Assessed the project strategies used.
- Assessed the capacities of participating agricultural cooperatives and farmer associations, as well and their efficiency and effectiveness in providing farmers with the needed support.
- Generated lessons learnt and recommendations from the implementation of the project’s activities and the outcomes achieved that will be useful for the following phase of the project and for similar projects in the future.

B. EVALUATION METHODOLOGY

B-1 MAIN RESEARCH QUESTIONS:

One of the first steps taken for ensuring a sound understanding of the expected findings was to perform analysis and breakdown of the evaluation questions provided in the TOR. This process helped the Consultant further understand the questions, the components of each question broken down to data points, as well as the working definition of the terms used in each question. The list of evaluation questions were as follows:

- What is the assessment of the relevance, efficiency, effectiveness, impact and sustainability of the action?
- What are the lessons learned, best practices, and challenges faced in the project?
- What are the recommendations to improve, build, or scale the initiative for future interventions based on the results of the final evaluation study?
- To what extent has the project been able to meet its objectives and expected results? What is the progress achieved in regards to the project's indicators? What are the factors contributing to the successes/failures in meeting its objectives and indicators?
- To what extent are different stakeholders (MoALR, CBOs, extension agents, farmers, women, and community members) supportive of the project's interventions? What is their level of involvement in the action?
- What unintended results/outcomes has the project contributed to?
- How sustainable is the project and its interventions?
B-2 Methodology, Tools, and Sampling:

The baseline used a mix of quantitative and qualitative approaches to gather the primary data. The following table includes the tools prepared and the target groups for each tool.

Table 01 - Listing of the Quantitative and Qualitative Tools, Target Groups, and Sampling:

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Tool</th>
<th>Total Implemented</th>
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<tr>
<td>1</td>
<td>Quantitative Questionnaire – Men – individually administered</td>
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<td>Group Discussion (GD) – Men</td>
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<td>5</td>
<td>Agricultural Cooperatives GD or Key Informant Interviews (KII)</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Extension Officers and Community Leaders – GD</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Facilitators for women’s activities – GD</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>MoLAR representatives – GD</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Agricultural Research Centre – KII</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>Nutritionist and Trainer – KII</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Private Sector Representative – partnership KII</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Project Management interviews - KII</td>
<td>2</td>
</tr>
</tbody>
</table>

The tools were then developed to gather information to respond to the evaluation questions and to derive data values for the project indicators. All tools were developed in Arabic, using colloquial language to ensure ease of communication and to avoid the need for implementers to re-translate of simplify the questions.

The sampling for all individual questionnaires were numerical rather than scientific. The decision to go for this sampling method was due to acute budget constraints.

B-3 Implementation Dates and Duration:

The field implementation phase of the evaluation took 5 full working days split into 3 field days and 2 office meeting days. This was followed by two weeks analysis and reporting process.

B-6 Data Entry, Tabulations, and Analysis:

For the quantitative data, three MsAccess databases were developed. The quantitative data were gathered through 2 quantitative tools (one conducted with men, and one with women). Data clerks were assigned with the process of data entry. Each questionnaire was entered twice by two different data clerks to ensure accuracy and then the two completed databases are compared for discrepancies. Tabulations were then developed to quantify results and add percentages. The complete data sets are
provided to CARE as an annex to this report. For the qualitative data, the categorization and analysis process were done in parallel with the quantitative data entry and tabulations.

C. STUDY LIMITATIONS

The implementation of the evaluation was somewhat restricted by two limitations that affected implementation. These limitations were basically related to the budgetary constraints of the project. The budget available for the evaluation was not adequate to follow through with a full fledged evaluation using scientific sampling methods. Hiring a group of researchers for primary data collection was not possible. Additionally the time available for the whole process including preparation and reporting was tight. Compromises were made, in coordination with the project team, in the methodology and sampling to ensure that the evaluation is implemented with the highest quality possible within these limitations. The sampling decreased substantially than the planned scientifically chosen sampling, and only 2 researchers from TASSC’s team members were assigned with the primary data collection process.

In addition, the planned sample of farmers was not possible to reach. The groups of men invited by CARE and local cooperatives were reluctant to participate. Thus the number of men reached was less than expected. However, the data gathered quantitatively was analysed using full numerical analysis and tabulations/charts were derived using sound analysis.

IV – DEMOGRAPHIC PROFILE OF QUANTITATIVE RESPONDENTS

The baseline targeted two groups with quantitative research approaches: men (farmers) and women (participants in the nutrition activities and VSLA). This section provides basic description of the quantitative sample of each group. It is worth noting that the evaluation team has only gathered the basic data relevant to the project rather than gathering the standard basic data on respondents. For example, education status was not relevant to this evaluation and it would not have added a separate analysis layer. Similarly, marital status of farmers was also not gathered. The data gathered was limited to land possession among both farmers and women, and marital status and work status among women.

A- NUMBER OF RESPONDENTS:

The total number of respondents reached by the evaluation was 22 farmers (male) and 31 women.
Women’s Marital Status:

The majority of respondents (74.2%) were married, while 19.4 percent were single, and only 1 respondent (3.2%) was widowed, and 1 (3.2%) divorced. 60.9% of married women reported having children.

Women’s work status:

Only 38.7 percent of respondent women reported holding a job at the time of the evaluation.
V – FINDINGS – BY EVALUATION QUESTIONS

As mentioned in the methodology section, CARE provided a list of questions to be addressed by the baseline. This section will provide the responses reached through primary data collection and analysis, as well as secondary data review in the form of project documents and reports.

WHAT IS THE ASSESSMENT OF THE RELEVANCE, EFFICIENCY, EFFECTIVENESS, IMPACT AND SUSTAINABILITY OF THE ACTION?

1. RELEVANCE:

Project documentation and interviews demonstrated a great extent of project relevance to the target groups and the situation prior to the project’s implementation. The evaluation also found that the project’s design was relevant to the needs of the target groups and target communities. The pre-project situation, as presented in the project proposal and confirmed and verified by the baseline study results, required specific interventions to address the areas in need of direct action related to small farmers in the three targeted governorates.

One of the primary baseline findings was that despite the demonstrated difference in soybean production experience between the three governorates (26% in Daqahlia and 9% in Beni Suef, versus a 98% in Minia). Experience in this context however reflected the number of years producing soybeans. However, all target groups were implementing longstanding and traditional practices in soybean cultivation. The project was thus able to address a real need among small-scale farmers, introducing modern agricultural practices that helped farmers increase productivity and quality, and decrease costs, leading increased income.

One of the objectives of the project was related to fostering good nutrition practices and contributing to the achievement of food security. The project has not provided information on the pre-project situation of targeted communities and groups regarding nutritional practices and food security. Thus it was difficult for the evaluation to assess the relevance or related interventions to the target groups.

Despite this, much literature exists on the status of nutrition and food security in Egypt. A report by WFP and CAPMAS found that an estimated 13.7 million Egyptians (or 17 percent of the population) suffered from food insecurity in 2011. The report stated that average household spends 40.6 percent of its income on food, rising to more than half for the poorest. According to FAO, Egypt has fared low in

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addressing malnutrition with a prevalence of both forms of malnutrition; over - and under nutrition with what that entails of economic and human costs

It is thus accurate to state in this report that the project has been relevant to the needs of the target groups in this regard. The project has put a great focus on nutrition, promoting healthy nutritional behaviours and dietary diversity across small-holder farmer households. The use of soybeans in increasing the daily nutritional value in households was one of the focus areas of the project interventions. The study on Gender Based Value Chain Analysis, administered by the project, explored the status of knowledge among women in the targeted communities on the use of soybeans in household consumption. The study indicated a general lack of knowledge on the possibility of incorporating soybeans in daily meals and its nutritional value as a healthy and less expensive protein source.

Additionally, the project has identified agricultural cooperatives as a main player in supporting small holder farmers. Agriculture in Egypt is characterized by small production units, fragmentation of agricultural lands, scarcity of water resources with respect to needs, weak farmer income. Agricultural cooperatives are thus of particular importance as an effective means of assembling farmers' low ownerships together in a large cooperative entity that maintains individual ownership among farmers; this is in order to gain farmers economic strength and raise their productivity and competitiveness.

The planned role of cooperatives is vast and layered. Cooperatives could exist in all the pre and post stages of the production process, starting from the provision of agricultural inputs, leasing of agricultural machinery, harvesting and crop collection, sorting, storage, packaging and marketing. Thus cooperatives have provided the project with a huge opportunity for providing layers of support for small holder farmers and diversifying economic activities along the steps of the value chain.

However, cooperatives in Egypt lack the needed knowledge and capacities to assume their roles. Their relations with farmers is characterized by low communication levels and the provision of minimal support. Both the project documentation and the group discussions with various respondents found that the relation between cooperatives and farmers was limited to supplying farmers with fertilizers, which were mostly less than the adequate amount. The project was thus successful in targeting cooperatives as project beneficiaries (receiving training and support) and project partners (supporting achievement of project objectives).

The designed interventions supported cooperatives in improving their knowledge base on transparency, accountability and governance, gender, financial management, strategic planning, and modern soybean agricultural practices. As a result, the participating cooperatives were able to increase the level of communication with farmers, provide information as needed, and in some cases, develop brief drafts for strategic plans. Adopting transparency practices, some cooperatives posted farmer government allocated provisions by crop. However, the project has not benefited.

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highly from the presence of cooperatives as an asset to the value chain. The full results of the improved knowledge base have not yet been translated to actual actions towards improving value chain governance through the cooperatives.

In conclusion, the project demonstrated high relevance to the needs and concerns of the target communities and groups. The project design has also proved to be relevant to a great extent to the project objectives. The project design focused on three levels of interventions correspondent to the project's three objectives as detailed above.

**EFFICIENCY:**

The evaluation did not include a financial analysis or a cost benefit analysis of the project. However, based on observations of the evaluation team in addition to the satisfaction level communicated by project beneficiaries (men and women small holder farmers) and other stakeholders (extension officers, government officials, representatives of research institutes, and agricultural cooperatives, all project interventions were highly relevant, effective, and satisfactory, which is considered the first step to assessing project's efficiency.

A number of actions executed by the project demonstrate a high level of efficiency, exhibiting knowledge and ability to make the best of available resources to reach targets. This includes:

- **Training for facilitators:** The project invested in providing training for locally based facilitators to take over nutrition related awareness sessions for women. The training resulted in the presence of a local cadre of women facilitators possessing the ability and the experience to continue raising awareness among women. In terms of numbers, 3 facilitators were trained in each community. Each facilitator reached 3 groups of women of 15 - 20 members each. All women respondents reported unanimously their satisfaction with the facilitators' performance, the training, and the topics provided. Results of the interviews with respondents clearly demonstrates an efficient use of resources on the part of the project.

- **Maximizing the benefit of available resources and CARE expertise:** The project has heavily relied on training as a support strategy for most interventions implemented. The project attempted to make use of all available resources, whether internally within CARE, or externally through coordination with governmental and non-governmental entities. For example, the training for agricultural extension officers was implemented through coordination with Research Institute in Malawi, Minia. The Institute representative provided training and technical support for extension officers, monitored some of their activities, and coordinated the implementation of extension fields and field school. Using CARE internal expertise was another good and efficient practice recommended for replication. Trainers from CARE conducted the capacity building activities targeting agricultural cooperatives, namely on governance, transparency and accountability, and strategic planning. Additionally all VSLA related training for women and participating organizations were also conducted by CARE team members.

- **Monitoring and Evaluation System:** While assessing efficiency in simple terms is the direct measure of the relationship between outputs and inputs, the quality of the inputs and outputs remain an important consideration in
assessing efficiency. To assess both the quantity and quality of inputs and outputs continuously, and make comparative analysis of cost and benefit, requires a strong monitoring and evaluation system in a project. The project did not have a complete logical framework (including data sources and measurement, risk assessment, and inputs). Despite this, it was clear that an adequate degree of monitoring was conducted on a regular basis. This was demonstrated through the studies that the project conducted, the pre and post tests administered through awareness/training sessions for all target groups, and the regular presence of CARE team within the communities on a daily basis for monitoring and guidance. However, the presence of a sound logical framework and more comprehensive M&E plan for the project would add to the project's ability for progress management, assessment of results, early detection of low quality/outputs, and making informed decisions for altering the project's work plan as needed. This will be especially complimented with the addition of a section in the projects reports that mirrors the M&E plan with achieved status versus planned.

- **Flexibility**: Additionally, the project demonstrated an adequate level of flexibility based on data gathered on project activities and progress. An example of such an informed decision is the alteration of the training plan for the agricultural cooperatives. Originally the topics provided were complex (including several sub-topics) for 1 participant per cooperative. Based on a brief impact assessment, it was clear that the training - while achieving the targeted deliverable/output, has not had the intended effect on the target groups. As a result a decision was made to reduce the number of cooperatives to ensure effectiveness, increase the number of participants per organization in training to maximize benefit, and split the sub topics while expanding the learning base on each topic.

- **Use of publications for raising awareness**: Use of publications has always been an efficient method for disseminating awareness messages among a large number of audience in wide geographic location with minimal one-time cost. In this case, fees for design and printing, followed by distribution. Publications also have a high potential for sustainability, where no further expenses will be needed to maintain the presence of the intended awareness messages among target groups. The following table includes a list of publications produced by the project with location of distribution and target group:

### SUSTAINABILITY:

### HOW SUSTAINABLE IS THE PROJECT AND ITS INTERVENTIONS?

Responding to this question required a multi-level of analysis to ensure that different project components were considered in reaching the findings as follows:

**General findings:**

The changes brought about by the project has a high potential of sustainability. The project targeted a change of attitudes and practices among small holder farmers, women from small holder households, agricultural extension officers, and agricultural cooperatives. While sustaining the practices might need further follow-up to ensure
the continuation of positive practices, changes in awareness and attitudes regarding increasing productivity and quality of soy crops and decreasing production costs, as well as following a nutritional lifestyle within households will continue in effect after the project’s completion. However, some of the said practices will be highly dependent on the continued support from extension officers and the Directorate of Agriculture in each governorate.

**Sustainability of Results:**

Agricultural Practices: As demonstrated above, the project managed to provide information and guidance for smallholder farmers towards changing agricultural practices related to soybeans. Most farmers have reported actual changed practices related to type of seeds, cultivation methods, irrigation techniques, and time of cultivation and harvesting. Due to the delayed start of the project to the middle of the agricultural season, some farmers were not able to employ modern practices, (especially those related to land preparation for cultivation, type and amount of seeds, clean cultivation, and crop maturity and harvesting). However, all interviewed farmers have communicated their intention to employ the modern agricultural practices for the following season. Additionally, farmers have examined the positive results of employing modern practices in comparison to conventional practices, manifested in almost doubling the productivity per acre and increased crop quality among farmers employing the new practices.

Nutritional practices: As mentioned in the effectiveness section, women were unaware of the basics of nutritional standards prior to the project. Their participation in the project have added substantially to their knowledge in this area. All interviewed women (100%) reported changes in their nutritional practices on a daily basis to comply with the received information. This included the diversification of nutritional sources, using available alternatives to high cost and less nutritious ingredients, and applying new recipes using diversified elements. The probability of maintaining a better nutritional lifestyle is high among targeted women. Several factors contribute to this high probability:

- Women respondents stated that they have perceived an improvement in their children’s health after applying the new nutritional knowledge they acquired through the project. One woman stated that teachers in school have also perceived such change in their children, especially related to less fatigue and higher activity.
- Respondents also stated that their children preferred new and untraditional meals to conventional ones. The project helped women achieve this while maintaining the nutritional value of meals at a low cost.
- Respondents were able to maintain a more diversified and nutritional lifestyle for their families at the same time without using a greater share of their income on food.

Utilization of soy in household daily meals: While the utilization of soy in household meals has a high potential of sustainability in itself for the myriad of benefits it brings to the nutritional status of the households and the low cost of meal making, it is considered one of the factors increasing the sustainability potential for following the nutritional practices mentioned in the previous point. Women respondents have unanimously stated that they would continue to use soybeans in preparing daily meals.
for their households. This is because usage of soybeans regularly achieve several purposes for women participants, such as:

- Soybeans are readily available in small holder farmer households cultivating soybeans. No additional costs will be incurred to buy it as a meal ingredient.
- The project helped women use soybeans in countless recipes, where it became a less costly alternative to higher cost and less nutritional materials (e.g. usage as snacks, usage in making energy bars or cereals, usage in making sweets, alternative to dairy products, alternate or complementary to meat in meals, etc.)
- Usage of soybeans in the diversification of meals for family members, especially for children, and introducing meals similar to high cost store bought fast food or cold cuts that are usually known for low nutritional value and high cost, many of which are not accessible for households in rural areas.
- Another unintended effect of using soybeans in innovative recipes was the strengthening of relations with other family members. Some women, especially those living with extended families, have reported being highly commended by family members and mothers-in-law on providing diversified and attractive meals for the family in higher quantities with lesser cost.

**Capacities and performance of agricultural cooperatives:** Agricultural cooperatives were targeted by the project on two levels, both of which demonstrated a high potential for sustainability. The first level was related to building the organization's capacities for providing farmers with information and guidance on agricultural practices. Most of the cooperative managers were also fulfilling the function of extension officers. Through the help of the Agricultural Research Institute, cooperative managers were provided with the needed information to convey to farmers on modern agricultural practices. Additionally, participants have also had the opportunity to contribute to the implementation of extension fields, which improved their connections and communication with farmers. Investment in training cooperative managers is considered a good practices to ensure sustainability of this component, especially for their affiliation to a sustainable and government supported entities. The ensuing increased connection with farmers, provision of guidance and advice, and regular communication has built a higher level of mutual trust between both parties that will not end by the project's completion.

The second level is related to the performance of the cooperatives and their role in service provision for farmers in the targeted communities. The project has provided cooperatives with training in several fields including transparency, governance, and accountability topics, financial management, gender, and strategic planning. Many of the targeted cooperatives took actions following the training that demonstrated the impact of the training on their performance. For example, in light of compliance to transparency standards, some organizations posted farmers' due provisions of fertilizers. Some organizations conducted hearing sessions as an accountability practice, while others established a complaint system for their constituents. These actions will continue in effect after the project's completion. Together with the increased level of communication and trust mentioned above, this created a leap in the relationship between farmers and cooperatives.
Operational Sustainability:

Additionally, the project has also demonstrated a high potential for operational sustainability. The project's chosen and implemented strategies guarantee - to some extent - the ability of the different stakeholders to maintain their application and continue implementation beyond the project's end with no to minimal support. These strategies were:

- Capacity building for extension agents affiliated to the Directorate of Agriculture helped them better execute their roles in providing technical support to farmers equipped with wider knowledge and higher quality.
- Choice and training of locally based facilitators and volunteers for providing awareness on nutrition and food production for women guarantees the continued presence of informational resources within the communities for utilization as needed. However, the continuation of facilitators in their role will also depend on the availability of financial resources to cover the needed expenses for implementing sessions (for e.g. materials, transportation, etc.). Additionally, one of the recommendations provided by facilitators included the expansion of their training to also encompass other topics, to allow them to provide further assistance to beneficiaries.
- VSLA in design provides the opportunity for independent operation. The VSLA groups do not need any external support, financial or other, to continue. The only determinant for continuation is the participants' willingness to join new saving cycles.
- The project's provision of kitchen appliances and utilities as part of the educational kitchens activity has also increase the potentiality for activity continuation - at least in the field of food production. Kitchens, provided to both CBOs and cooperatives, is considered an added asset to the organizations, allowing them to use in other development projects as needed. In the case of Beni Ebeid community (Minia Governorate), the local CBO that received the kitchen appliances reported their intention to implement and expand the educational kitchen activity for women who are not necessarily from soybean households.
- The project has also been successful in engaging different entities in providing comprehensive service for smallholder farmers in targeted areas. This combination of governmental entities (specifically the departments of extension and cooperatives in the Directorate of Agriculture), research centres, cooperatives, CBOs, and private sector has been a great asset to the project beneficiaries. The coordination enacted through the project has provided several opportunities for those entities to work together, share information and resources, and complement each other’s roles.

Other opportunities and challenges to sustainability:

There are two points for consideration worth noting in examining sustainability for this project. The first is the project's compatibility with Egypt's national 2030 vision. The project has encouraged farmers to employ modern irrigation practices that both conserve water and maximizes the benefit from used water in irrigation. The project has also coordination with the Water Research Area in Minia Governorate in implementing a study on irrigation that confirmed the benefit of the irrigation
practices encouraged through the project. Conserving water and maximizing the benefits from water use is one of the four main elements of water resource management goals specified in Egypt's 2030 vision.

The second point though poses a challenge to the project's sustainability with regards to continuation of practices. This is related to the agricultural cycle. As mentioned by several target groups (men, extension officers, government officials), the agricultural cycle mandates the cultivation of soybeans for two seasons, followed by a different crop for the third season. While there is a high potential for targeted farmers to cultivate soybeans for a second season while employing the practices they learned for increasing productivity and lowering costs, it is not guaranteed that they would continue to do so in new agricultural cycles after the interval of a different crop in third season. Farmers would need further efforts from extension workers and agricultural cooperatives to mobilize them repeat cultivation of soybeans, as well as refresher trainings on practices to ensure their continued employment of modern agricultural practices and avoiding their fall back to more conventional methods.

**Effectiveness and Impact:**

Note: At this stage, it is difficult to assess the project's impact as ample time need to be allowed before an ex-post evaluation is conducted. Thus this section focuses more on the effectiveness of the project, in terms of achieving project outcomes and objectives, and assessing the status of project indicators. As applicable, any reference to project impact is presented under the same section.

**To what extent has the project been able to meet its objectives and expected results? What is the progress achieved in regards to the project’s indicators? What are the factors contributing to the successes/failures in meeting its objectives and indicators?**

The following table provides a snapshot for the project’s objectives, outcomes, and indicators:

**Table 02 – Listing of Project Objectives, Outcomes, and Indicators:**

<table>
<thead>
<tr>
<th>Objectives Outcomes</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1 - Increase small-scale farmers’ income, guarding them against market price changes</td>
<td>% change in productivity of small-scale farmers</td>
</tr>
<tr>
<td>Outcome 1.1 Soybeans production cost reduction strategies disseminated within small-scale soybeans farmers</td>
<td>% of target farmers that have adopted at least three sustainable agricultural management practices and technologies promoted by the project</td>
</tr>
<tr>
<td>Outcome 1.2 Target small-scale soybeans farmers adopted high production input varieties and best practices propagated for by PROSPER.</td>
<td>Outcome 2: % of target farmers that have adopted, at least 1, best practice; % change in yield per feddan of land; % protein of impact farmers' representative samples</td>
</tr>
</tbody>
</table>
# Objectives Outcomes

<table>
<thead>
<tr>
<th>Outcome 1.3</th>
<th>Accessibility to diversified marketing channels expanded for small-scale soybeans farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1.4</td>
<td>Broadening women engagement in increasing soybeans aggregate target governorates demand</td>
</tr>
<tr>
<td>Outcome 3</td>
<td>% awareness change in marketing channels</td>
</tr>
<tr>
<td>% women engaged within soybean value chain</td>
<td></td>
</tr>
<tr>
<td># of household with three or more different income sources (from agriculture and/or non-farm income)</td>
<td></td>
</tr>
</tbody>
</table>

## Objective 2 - Foster good nutrition practices and contribute to the achievement of food security

<table>
<thead>
<tr>
<th>Outcome 2.1</th>
<th>Transformation in attitudes leaning towards good nutrition and betterment of eating habits</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of target group who ate fruits and vegetables at least once per day during the last 30 days</td>
<td></td>
</tr>
</tbody>
</table>

## Objective 3 - Foster a conducive and enabling environment for agricultural cooperatives and farmers’ associations

<table>
<thead>
<tr>
<th>Outcome 3.1</th>
<th>Strengthening capacities of agricultural farmers’ associations and enhancing their performance of their roles in effectively addressing their cultural, social and economic roles’ expectations meeting local needs, emphasizing effective technical and marketing services assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>% satisfaction of target farmers with ACs monitoring and mentoring visits</td>
<td></td>
</tr>
<tr>
<td>% satisfaction of target farmers with extension agents monitoring and mentoring visits</td>
<td></td>
</tr>
</tbody>
</table>

## Project First Objective and Indicator:

**Objective:** Increase small-scale farmers’ income, guarding them against market price changes  
**Indicator:** % change in productivity of small-scale farmers

As a first observation, the indicator does not necessarily provide a real measurement for reaching the objectives. The objective focuses on two specific issues: income and market, the indicator only focuses on productivity, which is considered only one aspect of several that contribute to the increase of income among smallholder farmers.

That presented, the evaluation attempted to assess the change in productivity among farmer who applied the newly learned practices, and to logically assess the relation between increased productivity and increased income. Additionally, the evaluation
attempted to assess the project’s contribution to “guard farmers against change in market prices”. The evaluation findings are as follows:

- The number of farmers reached by the project was a total of 3053 small holder farmers (10.3% of whom are women). Thus, the project managed to achieve 101.8 percent of the project target (3000 farmers as per the updated project document).

- The interviewed farmers (22) were divided into two categories, 5 farmers (22.7%) have never cultivated soybeans previously. The productivity of their crops could not be compared to a "prior" status to measure change in productivity. The rest (17 farmers, 77.3%) have harvested the crop from two agricultural seasons, once without applying all the modern practices introduced by the project, the second applying the practices. Thus, they were adequately informed with comparative information between the productivity of the crop based on changed practices post project, and the productivity of the crop prior to the project. The percentage below is based on the sample of 17 farmers that applied all modern practices introduced by the project and harvested the crop after applying said practices.

- All respondents (100%) have stated that the productivity of their crops have increased, and attributed this increase to the modern practices they learned and applied. Respondents did not identify specific practices that could have contributed to the increased productivity but rather indicated that the practices as a package was responsible for the change, in addition to the technical assistance they received.

- The percentage of increase in productivity ranged widely between farmers, ranging between 50 percent to 100 percent.

**Outcome 1.1 and Indicators:**

**Outcome 1.1 Soybeans production cost reduction strategies disseminated within small-scale soybeans farmers**

*Indicator: % target farmers that have adopted at least three sustainable agricultural management practices and technologies promoted by the project*

While the outcome focused specifically on cost reduction strategies, the indicator was concerned with newly introduced practices in general. However, all the practices directly contributed to cost reduction for crops, leading logically to increased income for farmers. Specifically, practices related a) type of fertilizer, b) irrigation method, 3) reducing the amount of seeds, and 4) agricultural method, reduced the costs of production substantially according to interviewed farmers and extension agents.

To be able to accurately provide findings for this question, the following points need to be taken into consideration:

- The project has been delayed substantially at the beginning of implementation because of delayed permissions. The actual start of activities were 2-3 months later than planned.
- This has resulted in starting the project activities after the start of the new agricultural season. Because of this, farmers cultivating soybeans had completed several production processes (such as preparing land for cultivation, choice and amount of seeds, agricultural method, etc.). These
practices have a direct impact on productivity. This means that in this case, farmers did not have the opportunity to fully benefit from applying the complete package of practices introduced by the project except for the following agricultural season.

- This resulted in two actions: a) most farmers have cultivated soybeans a second time applying all introduced practices (100% of sample farmers from this category indicated increased productivity in the second season), b) some farmers decided not to cultivate soybeans a second time. This is due to the decreased productivity observed the first time resulting from either not applying modern practices or only applying the practices package partially.

- Additionally, there is a third category of farmers, who have only started cultivating soybeans for the first time after joining the project. In this case, productivity change data is not available in terms of comparison to prior project status.

Concerning practices, the project provided farmers with the needed awareness on modern agricultural practices. The project employed several methods including: awareness sessions, direct technical assistance field visits, extension fields in all project locations, in addition to one field school in Minia. Interviewed farmers have highly commended the project’s efforts in raising their awareness on modern agricultural practices. However, most farmers interviewed (in 3 of 3 GDs) stated that while they benefited from all awareness activities, they considered direct technical assistance in field visits to be the most beneficial for them, specifically for the practical nature of the field visits and the specific guidance that each farmer received on his own crop.

Respondents (22 farmers) stated that they have applied several practices. Bearing in mind the points explained above, the following table provides the status of practices among farmers in terms of the number of practices applied.

<table>
<thead>
<tr>
<th>Practice</th>
<th># of Respondents</th>
<th>% from total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed type of fertilizer*</td>
<td>7 (of 22)</td>
<td>31.8%</td>
</tr>
<tr>
<td>Agricultural method**</td>
<td>17 (of 22)</td>
<td>77.3%</td>
</tr>
<tr>
<td>Quantity of seeds used***</td>
<td>17 (of 22)</td>
<td>77.3%</td>
</tr>
<tr>
<td>Irrigation schedule and frequency****</td>
<td>17 (of 22)</td>
<td>77.3%</td>
</tr>
<tr>
<td>Using clean agricultural practices for pest control *****</td>
<td>12 (of 22)</td>
<td>54.5%</td>
</tr>
</tbody>
</table>

(* The relation between each practice and cost reduction is listed under the sub-title below.

While a wide range of practices have been introduced by the project, farmers have only mentioned the above five major practices as being the most beneficial and the most applied. The practices however though can be considered as variables on their own, also encompass a number of sub-practices each that can be also considered variables if more detailed quantitative data was made available.
Relation of changed practices to cost reduction:

* The type of fertilizer introduced by the project resulted in reducing the amount of fertilizer needed per feddan. Farmers stated that this reduced the fertilization cost by 500 EGP (which represents approximately half the fertilization costs).

** The agricultural method introduced by the project (using benches instead of lines) decreasing substantially amount of irrigation water needed, thus leading once more to decreasing the cost of production, and increasing income in the process.

*** While the project has encouraged the use of a specific type of seed, distributed by the Directorate of Agriculture through agricultural cooperatives, changing the type of seed was not indicated as a “best practice” by farmers. The mentioned practice was related to decreasing the quantity of seeds used to allow adequate space for cultivation. Decreasing the amount of seeds to almost half has directly resulted in the substantial decrease in the production costs.

**** Prior to the project, farmers used conventional methods of irrigation (e.g. thirsting). Avoiding thirsting and ensuring frequent irrigations are two of the irrigation practices introduced that proved to be highly beneficial for farmers, in terms of productivity, quality, and cost reduction. Avoiding thirsting the land and frequent irrigations resulted in substantially lower amount of water, thus reducing cost of water used per acre.

***** The project encouraged the application of clean agricultural practices in general. In particular, respondents found the introduced methods for pest control especially beneficial. This included methods for spraying, planting pest resistant seeds, etc. As a result the quantity of pesticides used in spraying decreased substantially, once more leading the reduction of production costs.

Concerning outcome indicator (% farmers adopting at least three sustainable agricultural management practices), the following chart provides a visual status of the indicator by number of practices:

![Figure 04 - Percentage Distribution of Respondent Farmers by Number of Modern Practices Applied](image)

The above graph indicates that most farmers (77%) have applied at least three practices (45% reported applying 3 practices, while 32% reported applying 5 practices). Only 23 percent of respondents reported applying one practice. However, the practices mentioned are considered “major practices”, each of which includes a wide range of practices, that could be considered as “steps” towards the full...
application of the practice. One more consideration for this result is that respondents were not directly asked about the number of practices they applies, but rather about the practices themselves.

**Outcome 1.2 and Indicators:**

**Outcome 1.2 Target small-scale soybeans farmers adopted high production input varieties and best practices propagated for by PROSPER.**

*Indicators:*
- % of target farmers that have adopted, at least 1, best practice
- % change in yield per feddan of land;
- % protein of impact farmers’ representative samples

**Note:**
- The first indicator (% of target farmers that have adopted, at least 1, best practice) is covered already the indicator for outcome 1.
- The third indicator (% protein of impact farmers’ representative samples) could not be assessed during the evaluation. Assessment of this indicator will need the contribution of technical experts and the actual laboratory testing of physical crop sample collected directly from the harvests of targeted farmers.
- Additionally, the second indicator (% change in yield per feddan of land) has partially been covered under the indicator for objective 1. The following section provides some additional information on this indicator.

Regarding the indicator % change in yield per feddan of land, as mentioned previously, all respondents (100%) have stated that the productivity of their crops increased, and attributed this increase to the modern practices they learned and applied. The percentage of increase in yield per feddan ranged widely between farmers, ranging between 50 percent to 100 percent. The following table provides more details regarding this indicator.

**Table 04 – Number Distribution of Farmer Respondents by Yield per Feddan and Percentage of Change in Yield**

<table>
<thead>
<tr>
<th># of Farmers</th>
<th>Yield per Feddan (in Tons)</th>
<th>% of change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
<td>After</td>
</tr>
<tr>
<td>6 farmers</td>
<td>1.000</td>
<td>1.500</td>
</tr>
<tr>
<td>4 farmers</td>
<td>0.750</td>
<td>1.500</td>
</tr>
<tr>
<td>1 farmer</td>
<td>0.900</td>
<td>1.200</td>
</tr>
<tr>
<td>1 farmer</td>
<td>0.800</td>
<td>0.900</td>
</tr>
<tr>
<td>1 farmer</td>
<td>0.900</td>
<td>1.400</td>
</tr>
<tr>
<td>1 farmer</td>
<td>1.400</td>
<td>1.800</td>
</tr>
<tr>
<td>1 farmer</td>
<td>1.100</td>
<td>1.500</td>
</tr>
<tr>
<td>1 farmer</td>
<td>0.900</td>
<td>1.500</td>
</tr>
</tbody>
</table>

The table above shows a substantial change in yield per feddan among all farmers applying the project introduced practices. The percentage of change ranged between 50 percent (in the case of 4 farmers, 18.2% of respondents), and 88.9 percent (in the case of 1 farmer, 4.5% of respondents). The most frequently mentioned change percentage was 66.7 percent, as mentioned by 6 farmer respondents (27.3% of respondents).
Outcome 1.3 and Indicators:

Outcome 1.3 Accessibility to diversified marketing channels expanded for small-scale soybeans farmers
Indicator: % awareness change in marketing channels

This project outcome focused on expanding accessibility to diversified marketing channels among smallholder farmers, while the indicator focused only on awareness raising regarding market opportunities. The strategies employed by the project to reach this outcome were sufficient for the first step of accessibility, i.e. awareness of other market opportunities beside the usual wholesale traders. The project team reported three actions in this regard: 1) conducting a market assessment study, 2) conducting linkage meetings between farmers and processors of soybeans as well as representatives of fodder and dairy factories, and 3) conducting a workshop for interested processors and other interested parties to come up with a strategy for diversifying marketing channels.

Analysing the results of the above mentioned activities revealed the following findings:

- The market assessment study had clearly indicated the marketing challenges facing soybeans as a crop, specifically the low demand for locally cultivated crops versus the high supply of high quality low priced imported soybeans (30,000 tons vs. 1200000 tons, i.e. 25%). It also revealed the futility of diversifying market channels with the large crushers/processor organizations, where only two companies process around 80% of the total soya in Egypt, one of which is Cargill, who was not interested in buying from the target groups during this phase of the project.

- The study indicated that the opportunity for diversifying market channels lies mainly within the small crushers/processors level within the market chain. However, even in this case, the study revealed the processors' preference to buy from traders (bulk buying of cleaned, sorted, and transported harvests). The project however managed to conduct meetings with processes at this level to gauge their willingness for cooperation with the project and buying from small farmers. The resulting recommendations confirmed the findings of the market assessment study, asserting their preference for bulk buying from traders/centres. Still, the workshop/meetings revealed a high willingness among processors to cooperate with the project in this regard.

- The output of the conducted workshop has provided a well thought out and detailed list of recommendations to increase marketing potentials and act on the willingness communicated by processors to buy soybeans from project farmers, through a collection centres.

- Additionally, the market study identified agricultural cooperatives as a potential substitute for traders, indicating their lack of capacities (in terms of infrastructure and capabilities) to assume this role.

Based on the above, the project documents, interviews/group discussions with target groups, and interviews with other stakeholders revealed that the project was not able to act on those findings/recommendations, thus losing ample opportunity to reach this outcome successfully. Acknowledging the difficulty in market channel diversification
due to low demand and increased competition with international products, the project has not made an effort to use available resources for achieving this outcome.

The project could have invested in building the institutional capacities of agricultural cooperatives (in terms of both infrastructure and capacities) to assume their role in linking farmers with marketing opportunities. Cooperatives have the potential to both the demand and supply side of the local market. The cooperatives could have gradually substituted the role of traders, fulfilling several functions at the same time: a) acting as intermediaries between farmers and processors, b) performing sorting, cleaning, and transporting functions within the value chain, c) acting as independent traders purchasing harvest from smallholder farmers and selling in bulk to crushers/processors, and d) directly contributing to "safeguarding farmers against market price changes. Additionally, cooperatives will have built adequate sustainable assets as "collection centres", thus providing the local community with a sustainable source for basic post-harvest processes for all similar crops.

Besides the above, the project could have also invested in two other strategies:
- Creating linkages with fodder traders within the same district of targeted communities, who would usually search for smaller quantities that crushers/processors, to increase demand for smallholder farmers’ crops.
- Invest in purchase and maintenance of machinery and equipment needed for crushing and oil making at the level of cooperatives (one per district) to act as small scale processors. This solution will fulfil the market demand for processed product, satisfy the farmers' need for marketing channel for their crops, and provide a sustainable and profitable asset within the cooperative that could serve for other similar crops after the end of the project.

That presented, future projects incorporating a marketing strategy for crops cultivated by smallholder farmers need to take the following points into consideration:
- Crops fulfil the requirements of traders, processors, and/or exporters in terms of product quality, storage practices, and transportation quality.
- Farmers and collection centres need to apply loss reduction practices.
- Seasonal market prices can conflict with prices set for contract farming.
- In most cases, processing companies and factories demand farmers/suppliers to transport crops to their location, thus increasing the marketing costs for farmers substantially.
- It is necessary to invest in the local partner organizations (CDA, CBO, farmer associations, etc.) abilities to act either as intermediaries or as direct traders for smallholder farmers crops. This could be in the form of improving infrastructure (space and renovations), equipping (establishing collection centers or small scale pack houses) and improving transport capacities.

Concerning the indicator “% awareness change in marketing channels”, results of the interviews with the farmers reveal that:

In basic terms, the project has been successful in increasing farmers' awareness on diversified marketing channels to some extent. According to the figure below, a total of 15 of 22 farmers (68.2%) confirmed that they have become more aware of marketing opportunities that had no prior knowledge of. The project conducted several meetings to create linkages between farmers and processes. In Beni Suef,
respondents mentioned the names of five processing companies, while in Daqahlia, respondents mentioned the names of two companies. None were mentioned in Minia.

The figure above indicates that respondents from Beni Suef had the highest awareness of marketing channels (in the form of a number of processing companies) (100%, 45.5% from total respondents). Most respondents from Daqahlia (71.4%, 22.7% from total) have also stated the same. On the other hand, Minia respondents have all stated their lack of awareness of other marketing channels than their usual traders.

These findings conform with the findings from the group discussions mentioned above, where respondents from Beni Suef indicated their knowledge of 5 processing companies, versus Daqahlia’s knowledge of 2 companies, and none in Minia.

Despite the above, all respondents (22, 100%) stated that they have not made any agreements with processors. Reasons provided revolved on the processors' demand for transporting crops to their location, and the higher prices offered by traders for their crops in comparison to the prices offered by processors. In addition, traders provide farmers with seeds and pesticides with a verbal agreement to purchase their crops with prevailing market price at harvest time.

**Outcome 1.4 and Indicators:**

**Outcome 1.4: Broadening women engagement in increasing soybeans aggregate target governorates demand**

**Indicators:**

- # women engaged within soybean value chain$^3$
- # of household with three or more different income sources (from agriculture and/or non-farm income)

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$^3$ There is a difficulty in assessing the value of the indicator in number as required in the formulation of the indicator. The project did not gather the needed data for this purpose. The evaluation has thus substituted for this by indicating the percentage rather than the number, derived from the sample respondents reached during the primary data collection phase of the evaluation.
The outcome and its indicators focus on the women’s participation in agricultural process and increasing household income, specifically through integration into the soybean value chain. In this case, the indicators are relevant and suitable to assess the achievement of the outcome.

To facilitate women’s participation in household income generation and their integration in the soybean value chain, CARE has implemented several strategies. The following list sums up the project’s activities in this regard:

- Conducting a gender analysis in the three governorate to assess the hindrances to females’ participation within soybeans value chain in target governorates. The study has also encompassed challenges to women’s participation in the agricultural processes in general, and assessed their knowledge and level of practice related to soybean cultivation, marketing, and household usage.

- Formation and training of a local cadre of facilitators to assist women beneficiaries in several processes (including saving groups and soybeans based meal processing).

- Introducing the Village Savings and Loans Associations (VSLA) among women as a first step towards increasing women’s participation in a) decision making related to household income and expenditures, and b) diversifying household income sources.

- Formation and supporting of VSLA groups in each community. A total of 751 had joined project established VSLA groups by the time of conducting the evaluation.

- Raising women’s awareness through sessions and training on several aspects: 1) gender issues and women’s participation, 2) modern agricultural practices for soybeans specifically, 3) income generation activities and management of small projects, 4) sales skills and time management, 5) sound nutritional practices, and 6) soybean based food processing and meal preparation.

- Providing women with needed technical assistance in small project management based on demand.

To assess the indicator "# of household with three or more different income sources (from agriculture and/or non-farm income)”, data was collected from women respondents on their current sources of income for households. To provide rationale for the resulting value of this question, respondents were also asked about the difference in sources of income after their participation in the project. The following table lists the results related to sources of household income:

### Table 05 – Number and Percentage Distribution of Women Respondents by Sources of Household Income by Governorate

<table>
<thead>
<tr>
<th>Family Sources of Income</th>
<th>Beni Suef</th>
<th>Minia</th>
<th>Daqahlia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Agricultural activity</td>
<td>1</td>
<td>10.0</td>
<td>5</td>
<td>45.5</td>
</tr>
<tr>
<td>Agricultural related production</td>
<td>0</td>
<td>-</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Animal production</td>
<td>0</td>
<td>-</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Poultry</td>
<td>0</td>
<td>-</td>
<td>2</td>
<td>18.2</td>
</tr>
</tbody>
</table>
The table shows that the most frequently mentioned source of income among respondents was the husband's job (45.2%), followed by agricultural activity and commercial activities, mentioned by 32.3% percent each.

It is worth noting that despite the beneficiaries were being targeted as family members of soybeans households, the highest frequency of mentions were not related to agricultural activities as a source of income. It is not clear from the gathered data whether the mentioned source was the only source, or whether the respondents have merely ignored mentioning the source as an additional source to agricultural activity.

Comparing the table above to the previously presented data on land possession reveal a few points that need to be noted while examining the data for this question:

- There is a difference between the status of land possession and relying on agricultural activity as a source of income.
- In some cases, respondents mentioned lack of possession, while at the same time mentioning agricultural activity as a source of income. This might be due to several reasons that could include land rent instead of possession, working (and receiving income) in a land owned by another family member, or working as a farmer in land owned by others.
- In other cases, respondents who have mentioned possession of land have not mentioned agricultural activity as a source of income. This might indicate that respondents' might not consider income derived from owned land as a "source of income" but rather as an expected outcome of land ownership in rural areas.

The following most frequently mentioned source of income was poultry (19.4%), animal production (6.5%) and respondent's own work (6.5%). The least mentioned source of income was agriculture based production, mentioned by 3.2 percent of respondents.

Concerning the percentage of households with three or more sources of income, the data show that sources of income ranged between one and three in number. None of the respondents reported having more than three sources of income as a household. The table below provides more details in this regard:

Table 06 – Number and Percentage Distribution of Women Respondents by Number of Household Sources of Income by Governorate

<table>
<thead>
<tr>
<th>Number of Income Sources</th>
<th>Beni Suef</th>
<th>Minia</th>
<th>Daqahlia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>1 Source</td>
<td>10</td>
<td>100.0%</td>
<td>6</td>
<td>54.5%</td>
</tr>
</tbody>
</table>
The table above indicate that most of respondents (74.0%) rely on one source of income as a household. However, as mentioned previously, reliance on one source does not necessarily mean that this source is related to agricultural activity. The table also shows that 22.5 percent of respondents rely on two sources of income. Only one respondent (3.5%) reported 3 sources of income for her household.

It is worth noting that most respondents (96.8%) confirmed that their income has increased after joining the project and the VSLA groups.

For assessing the indicator “# women engaged within soybean value chain”, the following findings were reached:

- Most respondents (96.8%) stated that they produced soybean based products/meals.
- Respondents indicating their engagement in the soybeans value chain did not exceed 29.1%. This percentage is divided between respondents selling soybeans (19.4%) and respondents selling products made from soybeans (9.7%).
- Respondents selling products made from soybeans mostly relied on selling snacks and meals around the schools areas for students. Only one respondent managed to sell her products to a local retailer for snacks.
- 87.1% of respondents stated that they only produced soybean meals and snacks for their household use.
- Reasons mentioned for not attempting to sell products commercially included:
  - Lack of space/time for bulk production
  - Refusal of husband/family
  - Embarrassment
  - Lack of demand, especially because all women in the group have been exposed to the same information, learned producing same type of products, and could easily compete for supply.

It is worth noting that the gathered data and the above findings focused specifically on women’s integration in the soybean value chain. However, this does not include women’s integration in other value chains. As will be presented below, % respondents have used VSLA savings/loans for implementing income generating projects. Many of these projects could be easily considered as functions within the levels of other value chains, not relevant to the project subject of this evaluation. This is why no data for assessing other value chains integration was gathered during this evaluation.
As presented in the strategies the project employed for achieving this outcome, formation of VSLAs was a necessary logical step to increase women’s participation in decision making related to household income and expenditures, increase women’s participation in income generation, and increase their access to financial resources. Women respondents in the group discussion were asked several questions to assess the actual contribution of VSLA to reaching this outcome.

Respondents saw the VSLA as a highly beneficial mechanism. VSLAs helped women on three levels, a) increased their income - through encouraged saving, b) provided opportunity for implementing income generation project, and c) expanded their community and gave them an opportunity to expand their connections and relationships. As a result, more than half the respondents (54.8%) established their own income generation projects using VSLA savings or loans, in addition to 9.7 percent (3 respondents) who used the savings/loans in expanding existent projects as per the figure below:

The figure above demonstrates that while more than half respondents (54.8%) established small projects, the percentages varied between governorates. Beni Suef had the highest percentage of projects established (70.0%). In Daqahilia, exactly half the respondents (50.0%) reported establishing projects, while in Minia, less than half the participants (45.5%) reported the same. On the other hand, Daqahilia seemed the highest in respondents expanding existing projects (20.0%), in comparison to Beni Suef (10.0%) and Minia (0.0%).

**Objective 2, Outcome 2.1 and Indicators:**

*Objective 2 - Foster good nutrition practices and contribute to the achievement of food security*

*Indicator: % of women in target group of reproductive age who are consuming a minimum dietary diversity (Minimum Dietary Diversity for Women) Nutrition Behaviors*
Outcome 2.1 Transformation in attitudes leaning towards good nutrition and betterment of eating habits
% of target group who ate fruits and vegetables at least once per day during the last 30 days

Notes:
- The objective is divided into two parts, one related to nutrition practices and the second is related to achieving food security. The project strategies have not directly served the second part of the objectives. However, the analysis will attempt to link the results of the project as a whole with the achievement of food security for targeted families.
- The objective indicator specifies the target group to be women of reproductive age. The project has not targeted this group specifically, but targeted women in general from soybean producing households. Thus, the evaluation gathered the primary data from a sample of women beneficiaries, notwithstanding their ages.
- The objective, outcome, and indicators for both are closely related. The section below will discuss and present findings related to all of them together.

Fostering Good Nutritional Attitudes and Practices:

The project has worked to promote healthier nutrition behaviours and dietary diversity across small-holder farming households. Direct activities were implemented with women acknowledging both their productive and reproductive roles within families. Applying this component followed a logical establishment of a linkage between fostering healthier nutrition behaviours and practices and soybeans, being the core of the project's focus, as a nutritional low cost ingredient for utilization in both daily meals and food production for selling.

The component was three pronged. 1) Provision of nutritional awareness for target groups covering basics of healthy nutrition for family members of different ages. 2) Employing the educational kitchen mechanism showcasing recipes using healthier ingredients and/or healthier cooking techniques. 3) Linking nutritional information and educational kitchen to opportunities for soybean based food/meals production, thus increasing potentials for commercial selling and joining the soybean value chain.

Additionally, the nutrition sessions were also complemented by other awareness topics towards reaching the project objective. This included gender awareness, sales skills and time management (covered in the previous section), and management of income generation projects.

Interviewed women were asked to indicate the most beneficial activity from their perspective. Most respondents identified the three aspects of the component to have together benefitted women to the most. Through interviews, the impact of the nutritional sessions was clear in the respondents' responses to questions on topics. Women demonstrated a good level of knowledge on food chain, designing meals with diversified nutritional elements, importance of consuming fruits and vegetables regularly, etc.

One of the overall impacts of the component is its contribution to the "food security" aspect for households. Combining the above mentioned three mechanisms has resulted in women's ability to maintain healthier nutritional practices, using healthier and lower cost ingredients as substitutes for less healthier and more expensive
ingredients in their daily meals, and using readily available materials in daily food processing (in this case the soybeans). Such practices led to food cost reduction and the gradual decrease of the share dedicated to food in households, thus contributing to increased food security in targeted households.

Respondents have also communicated another highly commendable result for this component that directly reflects the behavioural changes towards healthier nutrition for families, and specifically for children. As mentioned previously, women respondents stated that they have perceived an improvement in their children's health after applying the new nutritional knowledge they acquired through the project. One woman stated that teachers in school have also perceived such change in their children, especially related to less fatigue and higher activity. Additionally, respondents asserted their children's preference for the new and untraditional meals to conventional ones, especially due to the similarity of the meals to meals prepared by popular fast food chains, which was inaccessible to children in rural areas due to both lack of availability and high cost. The project helped women achieve this while maintaining the nutritional value of meals at a low cost.

To assess the indicator “% of women in target group consuming a minimum dietary diversity”, respondents were asked directly about the number of dietary elements they consume per meal. Women were also asked to provide the descriptions of their meals to ensure that the number of elements are correct. The Elements were double checked with the guide on minimum dietary diversity for women to ensure accuracy.

Generally, responses varied regarding the number of daily meals that women consume, where some respondents stated that they have 3 meals a day, while other usually forego and lunch and only have 2 meals (breakfast and either lunch or dinner, as the main meal of the day). However most respondents (87.1%) agreed that they diversify their daily meals to ensure including at least three nutritional elements in each meal, while only 12.9 percent of respondents did not diversify their meals on a daily basis.

Concerning the outcome indicator “% of target group who ate fruits and vegetables at least once per day during the last 30 days”, the following figures represent the related values:
Regarding respondents’ eating fruits and/or vegetables on a daily basis, 93.5 percent of respondents stated their compliance with this nutritional practice. However, women reported higher frequency of eating vegetables than fruits due to the lower availability of fruit choices and its relatively higher cost than vegetables.

**Objective 3, Outcome 3.1 and Indicators:**

**Objective 3 - Foster a conducive and enabling environment for agricultural cooperatives and farmers’ associations**

**Outcome 3.1 Strengthening capacities of agricultural farmers’ associations and enhancing their performance of their roles in effectively addressing their cultural, social and economic roles’ expectations meeting local needs, emphasizing effective technical and marketing services assistance**

**Indicator:** % satisfaction of target farmers with ACs monitoring and mentoring visits

**Indicator:** % satisfaction of target farmers with extension agents monitoring and mentoring visits

As a quick observation, the formulation of the outcome is quite complex and includes several aspects that call for different strategies and interventions. To be able to evaluate the status of the outcome accurately, the outcome needed to be broken down into aspects as follows:

- Enhancing cooperatives’ capacities towards enhancing their performance of their roles (cultural, social, and economic roles).
- Enhancing cooperatives capacities towards providing better technical assistance for their members.
- Enhancing cooperatives capacities towards providing between marketing assistance for their members.

It is also important at this stage to note that outcome focuses more on strategies (process level) rather than result level, which on the one hand made it easier for choosing the needed interventions, but on the other hand ignored the linkage with the objective, which focused on the conducive and enabling environment. One more observation is related to a missing aspect that needed to be added to the outcome.
formulation, related to the enabling environment (i.e. three level involvement strategies encompassing governmental authorities, farmers, and cooperatives.)

Another observation is related to the indicators. While the project strategies did, to some extent, address the different aspects of the outcome, the two indicators only focused on the technical assistance provided by the cooperatives and extension agents.

That presented, the following section details the evaluation findings regarding the outcome and its indicators.

1. Enhancing cooperatives' capacities towards enhancing their performance of their roles (cultural, social, and economic roles) - i.e. institutional aspect:

For achieving this aspect of the outcome, the project employed a capacity building strategy to provide cooperatives (represented in board members) with the training needed to facilitate their institutional roles. Bearing in mind that the primary purpose of the agricultural cooperative society is to help its members in the rational organizing of agricultural production, the processing, and marketing of the cropping output as well as animal production, in addition to controlling crop pricing towards stabilizing the market and ensuring farmers' benefit. In order to do so, cooperatives need to perform basic institutional processes to increase their knowledge and to enhance their communication with farmers, while employing transparency and accountability standards.

The evaluation found that there is a general lack of knowledge among cooperatives on the vast boundaries of their role. In reality, the cooperatives could perform similar functions to CBOs, while only focusing on their members (farmers) and on their theme (agriculture and related processes including animal and poultry production). Interviewed board members were asked to present their roles, the role of the cooperative. Responses showed a limited perspective of said role, which in turn limits the cooperatives' willingness and ability to expand their functions and provide better and more comprehensive service for farmers. This was confirmed by respondents (cooperative board members) who asserted that the training on cooperatives law was the most beneficial for them "because we learned our main role."

On the other hand, the project provided cooperatives with training on a list of topics that aimed to improve their performance on the institutional level. These topics were:

- Agricultural Cooperatives Law
- Accountability and transparency
- Governance
- Strategic Planning
- Financial Management
- Gender

All respondents communicated their satisfaction with the training provided in terms of both content and quality. Respondents did not suggest further topics for training.

The project focused on the provision or training, participation, measuring the changes in the knowledge level of participants. However the training resulted in changes in
practices - to some extent - among some of the cooperatives. Respondents mentioned the following practices/actions:

- Drafting cooperatives visions and missions.
- Improved financial management.
- Establishing a suggestions and complaint mechanism.
- Conducting hearing sessions for farmers attended by agricultural department.
- Designing and posting the roles and responsibilities of the cooperatives towards its members.
- Posting the farmer entitlements of agricultural inputs by land size and crop.

Respondents have also perceived a positive change in the level of communication and cooperative with farmers, stating that these practices resulted in increased credibility for the cooperatives and increase trust on the farmers’ part.

2. Enhancing cooperatives capacities towards providing better technical assistance for their members:

This aspect of the outcome is directly related to the two indicators on farmers' satisfaction with the cooperatives' and extension agents provided technical assistance. To present the findings for this aspect as well as the indicators, the related project strategy need to be considered.

- The project focused on the provision of technical assistance to smallholder farmers to provide them with the knowledge and skills needed to transition from applying conventional agricultural methods to modern agricultural methods in soybean production. The goal of said practices was to reduce cost of product, improve yield per Feddan, and improve crop quality, with the ultimate goal of increasing smallholder farmers’ income.

- For this purpose, the project needed to work closely with extension agents to assess their capabilities and ensure their ability to assume their function as the main service providers in this regard. It is worth noting that most extension officers, affiliated to and supervised by the Directorate of Agriculture, are either managers, board members, or staff of agricultural cooperatives. Thus their roles are considered dual roles. Acknowledging the difficulties that extension officers might face in reaching farmers, the project has also engaged local community leaders to assist in the provision of technical assistance process.

- The strategy thus mandated an intensive capacity building process for extension officers and community leaders. To ensure the comprehensiveness and quality the capacity building process, as well as enhancing the enabling environment as per the project objectives, the project solicited the support of both the Department of Extension at MoLAR and the Centre for Agricultural Research in each of the three governorates to provide the extension officers with the needed technical assistance for enhancing their capacities.

- Both entities have provided extension officers with training with levels of involvement that varied by governorate. For example, the role of the Centre of Agricultural Research was higher in terms of technical assistance in Minia than in Beni Suef and Daqahlia.

- Additionally, the scientific office affiliated to a private sector company initiated their involvement in the capacity building and technical assistance
process in Minia and Beni Suef, providing practical training for extension officer specifically in the field of agricultural pest control.

- The capacity building provided for extension officers and community leaders employed five mechanisms:
  - Awareness sessions
  - Extension sessions
  - Technical assistance field visits to individual farmers
  - Implementation of extension fields (11 in total)
  - Implementation of field schools (only 1 conducted).

The main methodology employed in capacity building included both theoretical training and practical implementation. This meant that experts from both entities, besides providing conventional training, have accompanied participants in the implementation process of technical assistance provision for farmers. This was considered by extension officers as a good practice that had highly positively effect on their knowledge and performance.

Concerning the status of the indicator, all farmers interviewed (100%) communicated their satisfaction with the technical assistance provided by extension officers.

Note: Based on the explanation provided above, measuring the status for the two indicators cannot be separated. The extension officers and the ACs are considered one target group, thus the farmers' perception and satisfaction with their roles did not differentiate between both groups.

However, presenting the satisfaction under this aspect of the outcome needs to go beyond farmers' satisfaction to also assess the satisfaction of extension officers as recipients of capacity building. In this regard, the evaluation found that:

- Both farmers and extension officers/community leaders were highly satisfied with the provided technical assistance, where the farmers have received direct technical assistance from both extension officers and the two participating entities, while extension officers received technical assistance in the form of "mentoring" from the two participating entities.

- Farmers identified the individualized technical visits to their own lands to be the best/most beneficial mechanism for training/capacity building. It allowed each farmer to received specific guidance on his own land and crop, thus maximizing the benefit of technical assistance. However, this mechanism, despite its acknowledged benefit, might not be an efficient mechanism, consuming a lot of time and much effort from extension officers to reach all targeted farmers and to give each farmer equal attention and assistance.

- Extension officers identified the extension fields as the best/most beneficial mechanism for training/capacity building. It allowed several farmers to receive practical information and guidance on agricultural processes at the same time, allowing for interaction between farmers, mobilization of discussion on technical issues, and exchange of experience.

3. Enhancing cooperatives capacities towards providing between marketing assistance for their members:

According to the Cooperatives Law (#122 of the year 1980), article 11 stipulates that the functions of cooperatives revolve around four fields: services, production,
marketing, and rural development. This include (sub point # 4, under article 11) "marketing the crops of its members in a co-op manner". While the project sought to increase smallholder farmers' access to marketing channels (as presented under objective one), it did not adequately address this aspect of the outcome under the third objective. Marketing was not reported as one of the training topics received by cooperatives. It was also not part of the technical assistance provided. Cooperatives posed a huge opportunity for providing layers of support for small holder farmers and diversifying economic activities along the steps of the value chain.

As mentioned under objective 1, the project could have invested in building the institutional capacities of agricultural cooperatives (in terms of both infrastructure and capacities) to assume their role in linking farmers with marketing opportunities. Cooperatives have the potential to both the demand and supply side of the local market. The cooperatives could have gradually substituted the role of traders, fulfilling several functions at the same time: a) acting as intermediaries between farmers and processors, b) performing sorting, cleaning, and transporting functions within the value chain, c) acting as independent traders purchasing harvest from smallholder farmers and selling in bulk to crushers/processor, and d) directly contributing to "safeguarding farmers against market price changes.

**TO WHAT EXTENT ARE DIFFERENT STAKEHOLDERS (MOALR, CBOs, EXTENSION AGENTS, FARMERS, WOMEN, AND COMMUNITY MEMBERS) SUPPORTIVE OF THE PROJECT'S INTERVENTIONS? WHAT IS THEIR LEVEL OF INVOLVEMENT IN THE ACTION?**

The analysis of secondary data gathered through desk review and primary data gathered from different stakeholders in the field revealed the project's success in forming linkages with several stakeholders, who demonstrated high involvement in the project’s actions and activities. The following table sums up the stakeholder’s involvement in the project and reflects their support to the action:

**Table 07 – Roles and Involvement of Project Stakeholders:**

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role and Involvement in the Project</th>
</tr>
</thead>
</table>
| Government officials, namely: the Departments of Extension and Cooperation in the Directorate of Agriculture | - Providing suggestions for districts where the project could be implemented.  
- Providing the project with a database on farmers and size of their land possessions.  
- Coordination with Agricultural Departments to facilitate the project’s implementation.  
- Coordinating the implementation of project activities with farmers and cooperatives.  
- Conducting some of the training events (e.g. the Cooperation Department Manager conducted the training on cooperatives law). |
| Agricultural Research Centres                                             | - Providing technical support to extension officers to support implementation of extension sessions, extension fields, and field visits to farmers.  
- Supporting the project’s awareness publications with content on best agricultural practices for soybeans. |
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role and Involvement in the Project</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- Training extension officers on soybean agricultural practices.</td>
</tr>
<tr>
<td></td>
<td>- Following-up on the practices applied in the extension field where the irrigation study was conducted.</td>
</tr>
<tr>
<td></td>
<td>- Coordinating with the Extension Department in the Directorate of Agriculture for the choice of the extension field.</td>
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<tr>
<td></td>
<td>- Coordinating with the Faculties of Agriculture in both Minia and Daqahlia for conducting a study on causes of soybean crop losses.</td>
</tr>
<tr>
<td>Irrigation Research Centre</td>
<td>- Overseeing a study on irrigation and submitting progress reports on the status of implementation to the Directorate of Agriculture.</td>
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<tr>
<td></td>
<td>- Applying the study on one of the extension fields in Minia.</td>
</tr>
<tr>
<td>Nutrition Research Centre</td>
<td>- Provision of technical support for facilitators and women on good nutritional practices and food production.</td>
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<tr>
<td></td>
<td>- Designing the awareness manuals used in nutrition classes.</td>
</tr>
<tr>
<td></td>
<td>- Participating in implementing exhibitions for food products made of soybeans.</td>
</tr>
<tr>
<td></td>
<td>- Providing content for the projects’ publications on nutrition and food production.</td>
</tr>
<tr>
<td>Extension Officers</td>
<td>- Providing technical support for farmers through extension sessions, extension fields, and field visits.</td>
</tr>
<tr>
<td></td>
<td>- Maintaining constant communication with farmers, responding to their questions and concerns.</td>
</tr>
<tr>
<td>Agricultural Cooperatives</td>
<td>- Providing a database on farmers and land possessions.</td>
</tr>
<tr>
<td></td>
<td>- Managers participating in the project’s coordination committee.</td>
</tr>
<tr>
<td></td>
<td>- Provision of technical support for farmers.</td>
</tr>
<tr>
<td></td>
<td>- Participating in the projects trainings (governance, accountability and transparency, financial management, agricultural cooperatives law, gender, and strategic planning).</td>
</tr>
<tr>
<td></td>
<td>- Applying the learning acquired through training in maintaining communication with farmers, and applying basic transparency and governance mechanisms.</td>
</tr>
<tr>
<td>Private Sector (Kafr El Zayat Company)</td>
<td>- Providing awareness sessions on agricultural pest control.</td>
</tr>
<tr>
<td></td>
<td>- Following up on the farmers’ application of acquired practices on pest control.</td>
</tr>
<tr>
<td></td>
<td>- Conducting field visits to lands demonstrating pest problems to provide farmers with technical support.</td>
</tr>
<tr>
<td></td>
<td>- Providing the project with the results of a study on agricultural pest control conducted in two external extension fields.</td>
</tr>
<tr>
<td>Local CBOs</td>
<td>- Providing venue for women’s activities (VSLA meetings, nutrition classes, and educational kitchens).</td>
</tr>
<tr>
<td>Local Facilitators</td>
<td>- Providing women with training and awareness on nutrition and food production.</td>
</tr>
</tbody>
</table>
Stakeholder | Role and Involvement in the Project
--- | ---
Local Leaders | - Participating in the project’s baseline.  
- Assisting extension officers and the agricultural research centres representatives in gathering farmers for awareness sessions.

**WHAT ARE THE LESSONS LEARNED, BEST PRACTICES, AND CHALLENGES FACED IN THE PROJECT?**

**LESSONS LEARNED:**

The analysis of evaluation results revealed a number of lessons that could prove beneficial for future project design. Lessons and recommendations are categorized by design, implementation, monitoring/evaluation, and sustainability as follows:

**Design:**
- The design process of the project needs to be comprehensive and detailed. The project needs a well thought out and articulated logical framework including measurable indicators, theory of change, and a complete risk assessment. The project could have benefited greatly from a well designed logical framework.
- Indicator targets (numerical or percentages) need to be identified before the project start to facilitate targeting and ensure sound results based implementation.
- One of the project’s good practice was related to implementation in areas that demonstrate both lack of experience and long experience cultivating soybeans. It is recommended though that in similar projects, interventions need to be planned and implemented differently with both target groups to ensure the maximization of benefit for both groups.
- While the project focused on soybeans specifically, due to the partnership with Cargil, it might be beneficial for future projects to provide farmers with guidance on a number of crops rather than focus on one crop, especially with the lack of marketing potentials for said crop (30,000 tons acquired locally versus 1200000 tons imported, i.e. 25%).

**Implementation:**
- During project implementation, it is necessary to regularly evaluate the situations and challenges and revisit the project plan as necessary to ensure that planned activities are still relevant. For example, the delayed permissions caused an expected delay in starting the implementation of activities. As a result, farmers starting applying only half the practices they learned as they had already started the new agricultural season. Applying only half the practices did not bring out the desired output in terms of productivity. Revisiting the plan in this case could have helped reorganize activities, focusing only on raising awareness and postponing the actual change of practice to the new season, thus maximizing the benefits of the practices to the crops and ensuring farmers’ buy-in of the newly acquired information and practices.
• When introducing new practices, including type of seeds, it is preferable to solicit the support of experts at the beginning of the project to determine the most suitable type of seeds for each governorate. Additionally, farmers need to be provided with evidence that modern agricultural practices, types of seeds and fertilizers, will result in increased productivity.

• It is also necessary to maximize the benefit of project assets towards achieving project outcomes. While both the VSLA and educational kitchens approaches were highly beneficial to ensure higher participation of women in income generation and decision making, their benefit could have been maximized with the proper utilization of the complimentary sales outlets for soybean products, providing an opportunity for marketing women’s soybean based products, thus increasing opportunities for linking learning with actual income generation.

• Flexibility is key for ensuring high quality results. An example for flexibility in the project (mentioned in the efficiency section), is related to the training of agricultural cooperatives. Originally, the topics provided were complex (including several sub-topics) for 1 participant per cooperative. Based on a brief impact assessment, it was clear that the training - while achieving the targeted deliverable/output, has not had the intended effect on the target groups. As a result a decision was made to reduce the number of cooperatives to ensure effectiveness, increase the number of participants per organization in training to maximize benefit, and split the sub topics while expanding the learning base on each topic. This flexibility and changed tactic resulted in highly positive effect in the performance of the participating cooperatives.

• One of the project’s highlights was the number of studies conducted to complement activities and provide rich informational inputs for informing the project implementation. It is always best to plan ahead for such studies and to conduct them during the first quarter of the project’s implementation to provide ample time for the project team to plan for utilization of results. Additionally, the design of the project’s budget need to take into consideration such studies in terms of availability of funds for implementing the recommended actions.

**Monitoring, Evaluation, and Reporting:**

• As mentioned in detail in the effectiveness section, the design of the project indicators need to be linked closely with the outcomes and objectives. Indicators are intended to be clear benchmarks towards achieving the outcome, and they need to reflect value targets.

• The project baseline was highly detailed in terms of determining the pre-project agricultural practices in targeted areas. However, the baseline was purely technical in nature. It is preferable for a baseline to go beyond the purely technical side to a more comprehensive approach covering all project outcomes and indicators, determine the exact status of indicators pre-project, and provide general recommendations for overall project implementation.

• Project reporting need to go beyond documenting process and activities. A comparative analysis of achievements versus targets, in addition to revisiting the identified risks, listing developments to partnerships, and discussing challenges and alternatives to implementation to meet said challenges need to be articulated in a categorized report. It could be useful to set up a reporting format at the beginning of the project that encompasses all above with a detailed indicator table to demonstrate progress towards results.
**Sustainability:**

- One of the mechanisms used by the project to attract farmers to awareness and training activities was the provision of transportation stipends for participants. While this mechanism is common in development projects, it poses a strain on the project's monetary resources and decreases the potentiality for operational sustainability. Other alternatives for attracting target groups towards similar activities need to be planned and introduced in future projects. For example, provision of in-kind agricultural inputs or increased access to equipment could be directly linked to participants’ attendance of awareness and training activities.

**BEST PRACTICES:**

Targeting different levels of soy production experience is considered one of the good project design practices, suitable for replication in other projects. On the one hand, communities that demonstrated high prior experience in producing soybeans were able to examine first-hand the effect of adopting different practices acquired through their participation in the project, which resulted in decreasing production costs and increasing income. On the other hand, communities with lower experience in soybean production had the opportunity to learn proper and more beneficial practices, which have similarly resulted in low cost and high income outcomes.

The project’s strategy for working with women demonstrated a commended logical sequence that could be replicated in other similar projects. Interventions followed the following sequence:

- Raising women’s awareness on modern agricultural practices, which increased women’s participation in decision making related to agriculture, and provided women with the information needed to act as peer educators for their male family members.
- Employing VSLA to help improve women’s access to financial resources, and encourage them to embark on income generating activities to diversify and sustain their livelihoods.
- Awareness raising on sound nutritional information and practices.
- Finally, applying the educational kitchen, linking it with soybeans as the main crop promoted by the project, through teaching women healthy recipes that make use of available resources (i.e. soybeans) with higher nutritional value and lower cost.

Another good practice, commended by farmers, extension officers, and other stakeholders was the blended nature of training and awareness for farmers on modern agricultural practices. Combining theoretical training, with practical training in the form of field visits, extension fields, and field school was a successful, and highly commended, good practice as it maximized the benefit of learning and provided the farmers with direct field guidance on individual basis. It is worth noting though that farmers considered the field visits as the best form of training as they received guidance individually, while extension officers considered the extension fields as the most efficient form of training as it combined individual guidance with higher outreach in one event.
**CHALLENGES:**

The project has faced a number of challenges in its duration. Most of those challenges were immediately addressed by the project team. The following table describes the communicated challenges and how/if he project was able to overcome them.

**Table 08 – Challenges Faced by the Project and How They Were Addressed:**

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty in mobilizing women to participate in the project, especially as related to saving groups and incorporating soybeans in daily meals. At the beginning of the project, women were reluctant to join VSLA for concern on commitments and interest rate for loans. In addition, the prevailing misconception on the relation between soybeans and infertility increased women’s concern.</td>
<td>The project solicited the support of community leaders and board members of local CBOs to convince women and ease their concerns. The local facilitators have also exerted a great effort in identifying potential households, conducting introductory meetings, and responding to women’s questions and concerns.</td>
</tr>
<tr>
<td>Farmers’ initial resistance to changing long standing and tried agricultural practices, especially regarding the type of seeds introduced by the project and provided by the Directorate of Agriculture through the agricultural cooperatives.</td>
<td>Extension officers, with the help of experts from the Agricultural Research Centres exerted much effort in trying to convince farmers of the benefits of applying the introduced practices and using the recommended agricultural inputs, presenting a comparison between the cost of inputs and agricultural processes, yield, and subsequent increased income using conventional and modern practices.</td>
</tr>
<tr>
<td>Farmers’ initial lack of confidence in the agricultural cooperatives.</td>
<td>The project employed a capacity building strategy for cooperatives that sought to improve their knowledge, and increase their governance and credibility. As a result, some cooperatives took steps towards higher presence and communication with farmers. Examples of such steps included increasing the level of communication with farmers, developing brief drafts for strategic plans, posting farmer government allocated provisions by crop, conducting hearing sessions, and establishing a complaint system.</td>
</tr>
<tr>
<td>The irrigation system (alternating irrigation) represented an obstacle for irrigating soybeans in the designated times in some communities.</td>
<td>The project assisted agricultural cooperatives in conducting a hearing sessions for relevant authorities to overcome this obstacle and reschedule the irrigation schedules to suit the crop requirements for irrigation.</td>
</tr>
<tr>
<td>The delayed permissions at the beginning of the project affected the activity schedule. This</td>
<td>The project condensed its activities once permissions were received. However, it was</td>
</tr>
</tbody>
</table>
Challenges | Strategy
--- | ---
resulted in the delayed start of activities until mid-season. | reported that this delay caused farmers to miss out on employing the needed practices (such as agricultural processes related to land preparation) during the season.
The financial and administrative system of the project mandated the submission of farmers’ ID cards for their participation in awareness and training. While this is understandably a financial requirement, it had negatively affected the level of participation. Additionally, only farmers whose names were in the project database as the owners of the land were expected to participate. | No strategy for addressing this challenge was reported. It is recommended to find alternative ways for registering participation without the farmers having to submit their ID cards. It is also recommended to expand participation in awareness and training to other family members working the land instead of limiting the activity to those who own the land. This might guarantee that the information is provided within the family/households.
The global price of soybeans has decreased during the project’s implementation, thus affecting the price per ton on the local level, which might affect farmers’ decision to cultivate soybeans in the following season. | Addressing this obstacle is beyond the project’s ability.

**WHAT ARE THE RECOMMENDATIONS TO IMPROVE, BUILD, OR SCALE THE INITIATIVE FOR FUTURE INTERVENTIONS BASED ON THE RESULTS OF THE FINAL EVALUATION STUDY?**

Based on the data and analyses provided in this report, and as a result of a thorough review, the following is a list of recommendation for facilitating the design and implementation of future similar project.

- Diversifying the crop focus of the project instead of limiting the technical support to only one crop, to maximize the project’s benefit and increase projects’ outreach to a larger number of farmers.
- Coordinating with all departments in the Directorate of Agricultural to ensure the provision of comprehensive support to target groups. These departments include seeds department, department of field irrigation development, Land Improvement Authority, Department of Irrigation, Contract Farming Department to address issues of crop marketing and ensure price control.
- Ensuring that nutrition and food production related publication also include nutritional data on each recipe such as nutritional elements, breakdown on elements with percentages from recommended daily values, and information for consumption for diabetic patients, pregnant women, and infants to ensure the comprehensiveness of the publication in terms of content and data value.
- Avoiding the use of direct monetary incentive for farmers participating in the project’s awareness sessions.
- Networking with companies specialized in organic fertilizers and pest control products to provide low cost inputs for farmers. A good practice for the project could be substituting direct monetary incentives with provision of low cost/no cost agricultural inputs to farmers regularly participating in awareness
and training or applying modern agricultural practices introduced by the project.

- Providing targeted women with sales outlets for marketing their products, either through establishing permanent outlets in coordination with agricultural cooperatives or local CBOs or through regular exhibition and events. Coordinating with other CARE projects to facilitate marketing opportunities, such as providing breaks in trainings and conferences could also provide a marketing channel for food products output of women’s income generation activities.

- Activating the role of agricultural cooperatives in crop gathering, handling, and marketing through establishing basic gathering, packing, and transporting options within cooperatives, and building their capacities to act as liaisons between farmers and wholesale traders or production companies.