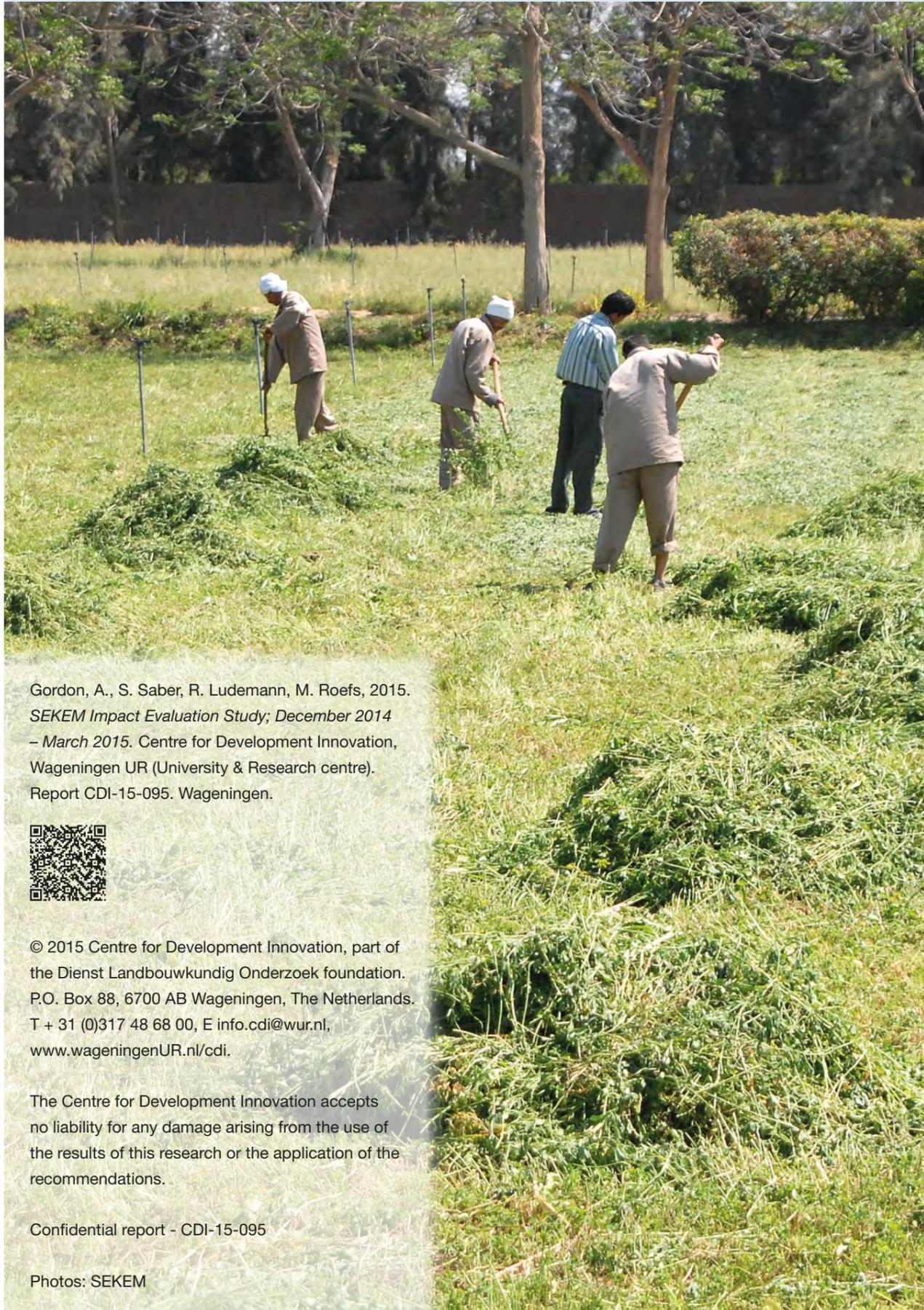


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Photos: SEKEM

# SEKEM IMPACT EVALUATION STUDY

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WAGENINGEN, JUNE 2015

SEKEM

  
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## List of abbreviations and acronyms

CDI	Centre for Development Innovation, Wageningen UR
CEO	Chief Executive Officer
COAE	Centre for Organic Agriculture in Egypt
DLO	Dienst Landbouwkundig Onderzoek, a Dutch foundation for agricultural research and development
DAC	Development Assistance Committee (DAC) from the Organization for Economic Co-operation and Development (OECD)
ECOA	Egyptian Centre for Organic Agriculture
EBDA	Egyptian Bio Dynamic Association
FGI	Focus Group Interview
GlobalGAP	Internationally recognized farming standards specific to Good Agricultural Practices (GAP)
HU	Heliopolis University
ILO	International Labour Organization
ING	International Netherlands Group
KII	Key Informant Interview
MFI	Microfinance Institution
NPM	Netherlands Platform for Inclusive Finance
PPI	Progress out of Poverty Index
SDF	SEKEM Development Foundation
SME	Small and Medium Enterprises
SMI	Soil & More International
SSI	Semi-structured Interviews
T & V	Training and Visit
Wageningen UR	Wageningen University & Research centre

## Preface

At the request of Oikocredit and SEKEM, the Centre for Development Innovation from Wageningen University and Research centre conducted an evaluation study on the social, economic and cultural impact of SEKEM's business model on farmers producing organically grown crops for the companies of the SEKEM Holding in the period from November 2014 to March 2015. The intention of the evaluation study is to enable SEKEM and Oikocredit to gain better insights into the impact of the multifaceted programmes and projects conducted and inspired by SEKEM on farmer-supplier entities.

This evaluation study provides SEKEM with the opportunity to start systematically gathering information on the social, economic and cultural impact of its production activities, while for Oikocredit the impact evaluation study fits with its strategy of increasing its focus on its Production & Services Portfolio, especially in agriculture in Africa, enhancing its insight into the impact that the programmes of its partner organizations have on their clients.

SEKEM is not representative of Oikocredit's agricultural portfolio, as it is one of a kind. Nevertheless, SEKEM is a highly interesting partner with a holistic business model and related impact indicators that can certainly add value to the more general experiences in impact assessment in the agricultural sector.

The results of this study are intended as a source of reflection and learning from the evolution of SEKEM's business model, and should enhance the level of transparency and accountability of SEKEM's programmes to stakeholders. In the following pages we present a brief summary of the results of this study.

Cairo/Wageningen, April 2015

The CDI evaluation team

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## Executive Summary

### Background

The SEKEM impact evaluation reported here was undertaken between November 2014 and April 2015 by a team from the Centre for Development Innovation (CDI), Wageningen University and Research centre in the Netherlands. It was commissioned by Oikocredit - a privately funded financial co-operative registered in the Netherlands, with a presence in 65 countries. As at December 2014 Oikocredit provided credit and equity to 805 partners, including SEKEM in Egypt, in which it has an 11% stake.

SEKEM is a social enterprise founded in 1977 with the reclamation of 70 ha of desert – a project inspired by insights from anthroposophy and Islam. Today it has grown to 3,000 ha and the SEKEM holding consists of nine companies selling organic foodstuffs, textiles and phytopharmaceuticals with an integrated value chain supplying national and international markets. SEKEM cultivates its own biodynamic farms and, with the establishment of the Egyptian Bio Dynamic Association (EBDA) in 1994, has helped over 700 farmers in Egypt shift from conventional to biodynamic agriculture. It also established the SEKEM Development Foundation (SDF) in 1984, which runs educational and health projects and, in 2012, it opened the Heliopolis University for Sustainable Development.

### Purpose

In commissioning this evaluation, Oikocredit and SEKEM wanted to focus on SEKEM's farmer/suppliers. In particular, they were seeking:

1. Insights into SEKEM's impact on farmer supplier entities, ranging from farms owned and operated by single individuals to groups of farmers that form associations to meet supply needs;
2. A baseline, against which they can track impact over time and identify areas where adjustments are needed to improve sustainability;
3. Information - taking into consideration the model's relevance, effectiveness, sustainability and scalability for learning and accountability purposes; and
4. Evidence that the SEKEM model, being a private business, can promote development.

Through its promotion of organic/biodynamic agriculture, the biophysical dimensions of SEKEM's model have already received a lot of attention; therefore through this impact evaluation study SEKEM is especially interested in enhancing its understanding of the cultural, societal and economic sustainability of its work.

The evaluation does not take into consideration the operations at SEKEM's original farm near Bilbeis, 60 km from Cairo (particularly in health and education) because these scarcely impact the farmer suppliers who are mainly located elsewhere in Egypt.

### Approach to the evaluation

After a briefing by Oikocredit in the Netherlands, initial SEKEM/CDI meetings were held in Egypt in November 2014 and subsequent fieldwork was completed by the end of February 2015. The team adopted a mixed methodology including:

1. Meetings with SEKEM team-members, and a field trip, during the inception visit;
2. Focus group discussions with SEKEM suppliers, other farmers, women and young people;
3. Key informant interviews with farmers, other people in the SEKEM supplier communities, SEKEM staff, Heliopolis University staff and students, and agronomists;
4. Direct observation through farm visits;
5. Comparative analysis of farm operations for crops grown using biodynamic methods versus other 'conventional' production methods; and
6. A review of secondary data where available.

In total, 21 focus group discussions were held with 104 discussants and 40 key informant interviews conducted. Fieldwork was led by two CDI team members, who, at SEKEM's request, were mostly accompanied by staff and/or students from SEKEM headquarters and its Heliopolis University. The latter marked the first phase of building SEKEM's own capacity to conduct similar evaluation studies in the future. The staff and students were involved in the logistics, organization and further processing of data, without interfering with the actual analysis and formulation of results, a measure taken to preserve the objectivity of the study as far as possible.

Fieldwork was conducted in the governorates of Fayoum, Beheira, Kafr El Sheikh, Giza, Qaloubia and Ismaelia. Initial field visits were paid to the latter two places, whilst the other four areas were chosen because of their accessibility and representation of large numbers of SEKEM suppliers and important crops. For instance, 34 of the 52 supplier entities (65%) with whom SEKEM had contracts for the summer season 2014 are located in these areas, whilst the same areas account for 89% of a potential 332 farmers (i.e. farmers associated with and helping supply the 52 supplier entities).

CDI, SEKEM and Oikocredit maintained contact throughout the study and, following the submission of a draft report, a validation workshop was held at SEKEM's headquarters in early April 2015, with representation from SEKEM (including the University and EBDA), Oikocredit and CDI. This report includes the feedback on earlier drafts and the workshop discussions.

### SEKEM sources its supply from its own farm and from contract farmers

At its core, SEKEM is about the development of local organic produce to supply a mainly local market within a business system that aspires to promote holistic farming practices and human development. SEKEM is effectively a household name in Egypt (particularly for its herbal and medicinal teas) and, according to SEKEM's CEO, Egypt is now the largest market for organic produce outside the US, Europe and Japan.

SEKEM sources its supply from its own five farms, and a pool of roughly 90 suppliers, located throughout Egypt, some of whom in turn effectively subcontract (formally or informally) a wider group of farmers (potentially as many as 412 farmers). All land used at the supplier entities to supply SEKEM is Demeter-certified to meet biodynamic/organic production standards.

The companies of the SEKEM group determine their crop needs per season and, using the Crop-Walker software system for planning and monitoring crop production, plans and contracts for crop supply are drafted. The agronomists supervising the correct application of the biodynamic/organic production techniques at farm level (employed by EBDA and paid by SEKEM) work closely with the suppliers. They often visit farms virtually every day, and effectively act as farm managers. SEKEM regards this input as essential in ensuring the integrity of the biodynamic crop production and meeting the requisite volumes and quality standards for products marketed in SEKEM's name. In addition, some non-contracted production is purchased on the open market.

### Conclusions

Farmers get more income and assured markets, and work opportunities increase. Through these supply contracts, the SEKEM operation potentially reaches out to:

- Roughly 90 contractees (farmer supply entities);
- Other certified farmers (potentially as many as 412) whose production contributes to the crop volumes contracted by SEKEM through such farmer supply entities;
- Farm labourers (the labour requirements per feddan, an Egyptian unit of area equivalent to 1.038 acres or 0.42 ha, for organic crop production are roughly 15-30% higher than for conventional crop production); and
- The families of these groups.

Although the farmers interviewed value the organic production methods and the avoidance of the use of chemicals, the impacts that are most evident are increased incomes (almost all farmers cite this as the main reason for switching to biodynamic agriculture) and a guaranteed market (many farmers note this advantage, commenting that SEKEM always

honours its contracts), as well as increased employment opportunities. The latter is a particularly important impact in poor and labour-surplus areas (such as Fayoum), from where men migrate all over Egypt in search of work. Increased labour opportunities are noteworthy because the requirements of the biodynamic operation (and payment for crops made in two stages, after crop delivery) otherwise preclude the direct involvement of most of Egypt's smaller farmers.

**SEKEM's farm management suggests that development of farmers' capacity is limited.** SEKEM has succeeded in promoting organic agriculture among its suppliers, but the operation seems to depend heavily on intensive input by EBDA/SEKEM agronomists. Even where farmers have supplied SEKEM for 20 years, the farm operation is still dependent on the agronomist input, with no apparent aspiration to build the farmers' capacity to comply with the quality production standards on their own.

**Little factual evidence of education and health impacts found among farmer suppliers.** Whereas the interviewees often mentioned health benefits of organic produce (to consumers and growers) there was no concrete evidence of related impacts. Some farmers noted the first-aid kits, the clean water supply and bathrooms for farm workers, provided through SEKEM, while others recalled that SEKEM had helped them to think differently about education. Three young relatives of contract farmers benefited from discounted fees at Heliopolis University.

**Impacts on women and young people strongly related to activities specifically targeted at them.** Although the women and young people interviewed speak favourably about organic agriculture, the SEKEM supply model has not expressly targeted these groups and, in general, their involvement is peripheral and any impacts limited. The exception is Kafr-El-Sheikh SEKEM where SEKEM had implemented a 20-month development project co-funded by an oil company, with an ongoing agriculture component as well as a wider range of activities (which ended in December 2014) with potentially broader impacts. Activities included literacy training for adults and children, pre-schooling, a nursery, training and operating a sewing workshop for women, and organizing computer training. Here the suppliers, non-suppliers, women, and young people all stated that they highly appreciate these activities. This case reflects (albeit at a much more modest scale and in embryonic form) the success SEKEM has achieved with its 'mother-farm' near Belbeis.

**The development role for SEKEM as a private enterprise.** SEKEM can only expect to have a wider impact on the people it reaches through its supplier entities if it actively engages in activities that supplement the agro-technological production practices. This conclusion seems to confirm that to be successful, the biodynamic approach requires implementation of a holistic approach and cannot - and should not - be reduced to only the ecological and financial aspects of farming.

**Develop a baseline – but first strengthen the information on the larger, indirect supply base.** SEKEM contracts directly with its circa 90 farmer supply entities and hardly keeps any specific information on the other farmers (potentially 400+) or labourers at the supplier entities involved in the production of the crop volumes to help meet the supply contracts. Therefore there is no detailed information readily accessible on the larger part of SEKEM's supply base (i.e. beyond the farmers signing the supply contracts) without which it is hard to develop meaningful impact indicators.

**The model is effective, relevant, sustainable and scalable but adaptations are needed.** SEKEM has succeeded in developing a large national market for organic produce and promoting its production, via EBDA, among 700 or so farmers – many of whom have sustained the switch to organic farming over twenty years or more.

The model's relevance can be seen in SEKEM's farmer supplier and consumer base as well as in its ability to potentially help address key strategic issues facing Egypt: the increasing strain on limited traditional farm land, the need for more employment opportunities for a large and growing population, the development of 'new' (desert) land including farming methods that require less water (more compost), and its contribution to broader growth through export-market development.

Strains are evident though, in farmer complaints of late payments in recent years (SEKEM hopes to rectify this in 2015) and environmental pollution that threatens certification in some areas. Adaptations planned by SEKEM include consolidation with larger supplier entities and sourcing a larger supply-share from its own farms and other new land. SEKEM seems to have the potential for growth in several areas: the supplier entities that are growing crops for SEKEM (at present 23% of their total acreage certified for organic production) can increase that percentage or acquire additional acreage for this purpose. SEKEM can also recruit more supplier entities, and/or expand crop production on its own farms. In this respect, the challenges and limitations alluded to above need to be taken into account.

**SEKEM/Heliopolis capacity for social and economic impact assessment has potential.** Although several staff members at SEKEM and Heliopolis University have experience and backgrounds relevant to impact assessment, the potential exists to develop much stronger capacity, should SEKEM wish.

### Recommendations

1. **Explicitly recognize the wider group impacted (beyond farmer contractees).** SEKEM reaches a wider group of farmers, labourers and their families but has little information on this group. If SEKEM wants to determine the impact of its activities on this wider group, it needs to collect the necessary baseline information against which such impact can be measured. Only then can SEKEM develop meaningful impact indicators and be accountable to this target group for their holistic mission.
2. **Give consideration to alternative approaches to contract farming.** SEKEM could reconsider the role of the agronomists and the nature of its supervision of crop production at farm level. This could be done by taking into account different approaches to contract farming used elsewhere and building farmer capacity to organize and associate, so that over time the smallholders take on more of the roles previously carried out by the company team (extension, farmer recruitment, quality control, crop assembly, compliance with contract requirements). Linked to this, SEKEM could consider how it might use its own (five) farms to support and link with contract farmers in the vicinity (e.g. as a conduit for input supply, training or other services).
3. **Identify relevant interventions in health and education – and for women and young people.** If SEKEM wishes to achieve impacts in health and education – and impacts on a wider group including women and young people. SEKEM needs to develop a strategy in this respect, and identify specific interventions, based on a proper understanding of the supply base (including women and young people), and active engagement in activities aimed at issues of prior importance to these groups. Following a thorough situation analysis, including the identification of opportunities to collaborate with other players in these action domains, SEKEM will also need to identify financing for such broader work among its farmer suppliers.
4. **Engage actively in the development role for SEKEM as a private enterprise.** To achieve a wider social, economic and cultural impact, SEKEM should actively engage in activities in those action domains. However, funding of such activities should not jeopardize the economic viability of SEKEM's income-generating capacity. To address the issue, SEKEM could (assisted by the SDF) design a strategy to search opportunities to collaborate with other organizations already deploying initiatives in these domains.
5. **Improve communication on SEKEM's activities beyond production.** Based on the feedback from many interviewees that they were unaware or ill-informed as to SEKEM's portfolio of social development and cultural activities, SEKEM should consider paying more attention to informing the people at the supplier entities and neighbouring communities about these aspects. This may call for structurally intertwining SEKEM's production oriented activities with SDF's social development initiatives.
6. **Understand the supply base and develop a socioeconomic indicator baseline.** With SEKEM staff, CDI developed a questionnaire<sup>1</sup> to gain more detail on SEKEM's supply base and suggested 'result domains' relevant to the design of a baseline. It is recommended that SEKEM tests this draft questionnaire with 3-4 supplier entities, and then adapt it as required, before fully implementing the tool. Enhanced information on the farmers and farm workers involved in the SEKEM supply chain, and on their families, is necessary to enable development of a meaningful set of baseline

<sup>1</sup> See Annex 9

indicators. The SEKEM/EBDA agronomists could be put in charge to collect and keep records in this respect as they are best positioned to do so.

7. **Continue to adapt the model, recognizing some of the trade-offs involved.** SEKEM has already recognized the need for adaptation to address the challenges it faces (and indeed, continuous adaptation and innovation is central to its whole approach to social enterprise). As it seeks to consolidate supply with larger growers, and to some extent its own farms and other new lands, it is important to recognize that these shifts are likely to mean relatively less focus on the areas where its development impacts are arguably greatest (i.e. in disadvantaged labour-surplus areas where work opportunities are badly needed).
8. **Consider how best to address SEKEM's monitoring and evaluation needs.** SEKEM should consider how to address its monitoring and evaluation needs – be it through developing the capacity of its own staff or by using external expertise, or (most likely) some combination of the two. In addition to instruction on the use of a set of tools, such capacity building requires thorough training in soft skills (people skills), practical exercises and flexibility to do field work, plus stimulation of a work place culture that encourages such reflection among its staff and partners. Improved monitoring, evaluation and learning would strongly complement the 'model' by helping provide a valuable source of inspiration and input for strategy and operations.

#### Articulation of the report

The report starts by describing the background, context and methodology in chapter 1. In chapter 2 the basic principles of SEKEM's operations are highlighted, while chapters 3 and 4 present the findings of development at farmer-level, and the perspectives of women and young people. In chapter 5 suggestions are made as to how SEKEM could set up a baseline study and develop routines for data management, and in chapter 6 the conclusions and recommendations of the impact evaluation study are presented. In the annexes the reader will find a series of attachments elaborating on the specific aspects of the study.



## 1. Introduction

### 1.1 Background

The work reported here was commissioned by SEKEM and Oikocredit. SEKEM, founded in 1978 by Dr Ibrahim Abouleish, is a pioneering social enterprise practising and promoting sustainable farming, organic agro-processing, and production of phytopharmaceuticals, organic cotton textiles and education<sup>2</sup>. Inspired by insights from anthroposophy and Islam, SEKEM started with the reclamation of 70 ha of desert. Today the company has grown to 3,000 ha and the SEKEM holding consists of nine companies selling organic foodstuffs, textiles and phytopharmaceuticals with an integrated value chain on national and international markets. The organization is also active in desert reclamation, converting desert into farmland using biodynamic farming concepts.

Oikocredit is a privately funded financial co-operative registered in the Netherlands. Established in 1975, it has a presence in 63 countries providing credit and equity to over 800 partners, i.e. microfinance institutions and cooperatives, fair trade organizations and small-to-medium enterprises<sup>3</sup>. It also facilitates and co-finances capacity building assistance for its partners to enhance their financial, social and environmental sustainability<sup>4</sup>.

#### SEKEM, a pioneering social enterprise

As a matter of fact, SEKEM is much more than the sum of its economic programmes, projects and activities; it combines social and cultural development with commercial performance and achievements, and is based on a holistic concept of thinking, greatly inspired by anthroposophy.

SEKEM's CEO (Helmy Abouleish) describes SEKEM as "the miracle that happened against all the odds." SEKEM's founder, Ibrahim Abouleish, wanted to develop a model community in the desert. SEKEM wanted its workers to devote 10% of their 'working' time to personal development and wanted to put 10% of the added value back into the community, whilst also putting 10% into innovation and research.

SEKEM's CEO highlights the following key elements in the SEKEM model:

- A support network of friends and partners in Europe;
- Fortuitous timing - biodynamic farming turned out to be very relevant, addressing water and energy scarcity, whilst the use of compost is very important on desert land;
- An associative business model which connects everyone in the value chain;
- Social investments, without which he believes the commercial side would not work;
- Continuous learning, development and change (always asking: "Should we proceed differently today?");
- Investment in people – reconnecting them to their source of inspiration ('holistic development');
- Starting with the idea of creating this on new land in the desert – serving the planet and people.

In 1984, SEKEM founded the SEKEM Development Foundation (SDF) which runs various schools, a kindergarten, a vocational training centre, a medical centre and other projects. SEKEM runs its own biodynamic farms, and in 1994 it established the Egyptian Bio Dynamic Association (EBDA), which assisted over 700 farmers in shifting from conventional to organic and biodynamic agriculture. The Heliopolis University for Sustainable Development, which started its operations in 2012, is the latest SEKEM achievement<sup>5</sup>.

<sup>2</sup> SEKEM 's farming, processing and distribution activities take place at the Belbeis farm complex. Outgrowers provide about 75% of the total production volume based on yearly supply arrangements.

<sup>3</sup> The microfinance institutions (566) provide microloans to their clients. The cooperatives, fair trade organizations and SMEs (285) are Oikocredit clients.

<sup>4</sup> For more information, please see [www.oikocredit.coop](http://www.oikocredit.coop)

<sup>5</sup> For more information on SEKEM, see [www.SEKEM.com](http://www.SEKEM.com)

## 1.2 The SEKEM Model

The SEKEM model can be characterized as follows:

- Biodynamic farm production, addressing water and energy scarcity, improving soil structure, texture and fertility, reducing the use of agro-chemicals and enriching bio-diversity, which are all very relevant issues in Egyptian agriculture;
- An associative business model connecting everyone in the value chain;
- Social investments, which SEKEM views as integral to its commercial operations;
- Investment in human resources - reconnecting people to their source of inspiration (holistic development);
- Continuous learning, development and change;
- Starting with the idea of recovering desert soils, creating new productive land - serving the planet and people by taking proper care of the economic viability of its business model;
- A support network of friends and partners in Europe.

## 1.3 Purpose of the study

### 1.3.1 Why is Oikocredit doing impact studies?

Over the last decade, Oikocredit has progressively gathered and systematized information from its partner organizations to facilitate data analysis and the comparison of partners' performance over time in different areas<sup>6</sup>. For all parties involved, the data and the results of their analysis serve as a basis for learning, informed decision-making, enhanced accountability to investors, and facilitate profiling the results achieved externally.

Building a solid partner database requires paying due attention to the partners' client base. To reach that goal various paths have been chosen: promoting tools developed in the microfinance sector, such as the progress out of poverty index (PPI) tool for micro finance institutions (MFIs), supporting MFIs (on site) in gathering and analysing client data in their own databases; and conducting impact assessments for specific projects. Oikocredit's outcome and impact initiatives help respond to the need for more transparency on the efficiency and effects of development cooperation in general - and microfinance in particular.

### 1.3.2 Why carry out a SEKEM impact evaluation study?

Following impact initiatives such as Card 2006-2007, Palfsi 2008-2009 and Cocovico 2010-2012, Oikocredit participated in the Action Research programme of the International Labour Organization on Microfinance for Decent Work 2008-2012 and ING/NPM's Billion to Gain report 2013-2014 where the focus was exclusively on microfinance institutions. For this reason, it was decided to select a production and services partner for the next impact study.

Another reason for selecting SEKEM was that the results of its operations are potentially very interesting and varied. SEKEM uses a business model which they refer to as 'the sustainability flower' consisting of a societal, cultural, economic and ecological petal/perspective. Hence the study fits Oikocredit's triple bottom line well.

SEKEM is not representative of Oikocredit's agricultural portfolio, because it is one of a kind. In that sense the selection is not scientifically sound. But SEKEM IS a highly interesting partner with a holistic business model and related impact indicators that can certainly add value to the more general experiences in impact assessment in the agricultural sector as this study inherently uses more qualitative than quantitative research methods. Finally, SEKEM is an Egyptian partner specialized in organic agriculture which matches Oikocredit's recent strategy to focus more on Africa, agriculture and organic farming in general.

<sup>6</sup> As at December 2014, Oikocredit had 549 microfinance Institutions and 256 production and services partners in its portfolio.

### 1.3.3 Purpose of the evaluation

Both SEKEM as Oikocredit's partner and Oikocredit as an international social investor would like to know what impact the multifaceted programmes and projects conducted and/or inspired by SEKEM have on the farmer-supplier entities. SEKEM's business model revolves around biodynamic agricultural production and association of all the actors along the production chain, sharing the benefits of the value-addition along the chain from producer to consumer in a transparent and mutually agreed upon process.

The main purpose of the impact study is:

1. *Learning*. SEKEM wants to gain insights into the impact it has on its supplier-farm entity bases. They would like to compare this with a similar group of farmers (as much as possible) who do not supply to SEKEM. Most of the SEKEM farm entities consist of 3-4 farmers, but some have 15 farmers (such as Eraky farm) and some others are big cooperatives like the Sakaran farm which is owned by 170 farmers but is managed (and registered by EBDA) as one supplier entity operated by Mr. Mohamed Saied;
2. *A baseline*, against which they can track impact over time and identify areas where adjustments are needed to improve sustainability. This can never be a pure baseline because the company has been operating since 1977, but establishing a baseline now is quite useful as it will allow SEKEM to reflect on and use the findings for future improvements;
3. *Accountability*. Information to improve its accountability to various stakeholders. Many organizations invest in SEKEM, financially or non-financially, and the findings can shed light on SEKEM's added value in terms of efficiency, effectiveness and relevance.

Moreover, SEKEM is interested in how the present study can inform further development of the sustainability flower, a model developed to improve sustainable development relating to the ecological, societal, cultural and economic dimensions of life<sup>7</sup>.

### 1.3.4 Impact, relevance, sustainability, effectiveness and efficiency

The terms of reference specify that the impact evaluation study serves a dual purpose: the study is meant to reflect on and learn from the evolution of SEKEM's activities, while at the same time the results of the study should enhance the transparency and accountability of its programmes.

The following questions are to be examined<sup>8</sup>:

- |                                     |  |
|-------------------------------------|--|
| 1. The impact of SEKEM's activities | (What changes, intended or not, have been seen?)           |
| 2. Relevance                        | (Is SEKEM doing the right thing for the farmer suppliers?) |
| 3. Sustainability                   | (Will changes last?)                                       |
| 4. Effectiveness                    | (Is SEKEM's initiative working as expected?)               |
| 5. Efficiency                       | (Are the resources available used to their best effect?)   |

To adequately respond to the aforementioned questions based on evidence collected from the parties involved, the CDI evaluation team set out to investigate the three key issues commented upon in the following paragraph.

<sup>7</sup> SMI and SEKEM are both interested in sustainable soil management and land reclamation. Together, they developed the Sustainability Flower, a model to be used as a tool to improve sustainable development of the supply chain along nine dimensions related to ecology, society, culture and economics [www.soilandmore.com](http://www.soilandmore.com).

<sup>8</sup> For CDI's proposal for the set-up of the impact evaluation study see Annex 1.

### 1.3.5 Key issues

In discussions with Oikocredit and SEKEM prior to the start of the evaluation impact study (September 2014), it was stated that the impact evaluation should investigate the following:

- How successful is SEKEM in relation to its suppliers? (the study serves to enhance insights into SEKEM's impact on its farmer-supplier entities);
- How well does the SEKEM model promote inclusive agribusiness that combines both sustainability and competitiveness?
- Does the SEKEM model demonstrate that there can be a development role for the private sector and not just for governments or not-for-profit organizations?
- What kind of information should be collected in a baseline, against which SEKEM can track impact over time and which can be used to identify areas where adjustments are needed to improve sustainability?

### 1.3.6 The focus of the impact evaluation

It is important to emphasize that the focus of this study is the impact on farmer-supplier entities, because SEKEM's portfolio is relatively broad in scope and its activities in the various dimensions of life are interlinked. Through its activities SEKEM addresses different target audiences: the SEKEM staff, the employees in the enterprises within the SEKEM Holding, its clients, partner organizations such as EBDA, and last but not least the farmer suppliers, their livelihoods and the families of other producers (small farmers and labourers) contributing to the total volume of biodynamic agricultural produce supplied to SEKEM by the supplier entities<sup>9</sup>.

### 1.3.7 Evaluation competence of staff from SEKEM and Heliopolis University

Thus far, the Assessment study of the SDF programme known as the Comprehensive Poverty Alleviation Intervention in Rural Sharkya conducted in 2007, has been the only evaluation study which focused on the impact of activities initiated by SEKEM in domains other than agricultural production practices and the building of a base of supplier entities.

This evaluation study on the impact of SEKEM's activities on the supplier entities constitutes a fresh approach, and SEKEM would like to use the occasion to develop the evaluation skills of its staff. In addition, and partly to reduce costs, much of the field work was undertaken in the presence of SEKEM staff and/or students from Heliopolis University, providing an introduction to the approach and methods used. After completion of the impact evaluation study there is an option for SEKEM to receive further training input to create the basic capacity to conduct monitoring and evaluation activities.

## 1.4 Methodology

### 1.4.1 Methods applied and persons to be interviewed<sup>10</sup>

To study the issues described in the previous paragraphs, CDI developed a proposal with various options on how to go about the evaluation study. In this proposal it was assumed that the qualitative data necessary as a basis for the collection of quantitative data would be available at the start of the study, and that the strategy of SEKEM underpinning its supply model would provide pointers for specific aspects of the social domain to be scrutinized by the study.

The proposal specified a range of variables to define sample categories based on the existing SEKEM, EBDA and ECOA records of the supplier farm entities. The CDI evaluation team suggested applying a mixed methodology, combining qualitative and quantitative methods, including:

- Collection and analysis of secondary data from SEKEM, EBDA and Oikocredit;
- Meetings with SEKEM team-members, and a field trip during the inception visit as a preliminary inspection and situation analysis;
- Focus group discussions with SEKEM suppliers and other farmers, including women and young people;
- Key informant interviews with farmer suppliers contracted by SEKEM, other farmers at those entities, farm labourers, farmers not supplying to SEKEM, and women and young people in the communities concerned, staff from SEKEM and EBDA including the agronomists accompanying and supervising production at the supplier entities, and staff and students from Heliopolis University;
- Direct observation through farm visits;
- Comparative analysis of crop budgets for crops grown, using biodynamic production practices versus crops produced by conventional farming methods;
- A caveat was made concerning the feasibility of identifying, convening and conducting interviews and/or group discussions with non-SEKEM suppliers not linked to SEKEM, and whose characteristics could only be known after contacting them, because the CDI team would not have access to any database on such farmers on beforehand.

### 1.4.2 Operationalization of evaluation criteria

For this evaluation study we define impact as positive or negative effects, intended or not, on individual households, institutions, and the environment, caused by the activities conducted and supported by SEKEM.

The first objective of the group discussions, interviews and field visits was to tease out what changes or impacts farmer suppliers had experienced, as a result of the relationship with SEKEM. By holding semi-structured interviews and discussions with the various groups, we tried to distinguish between changes attributed to SEKEM, and changes occurring without being attributed to SEKEM in particular.

Based on the assumption that the duration of the period during which the supply entity had a contract with SEKEM might explain the nature and depth of the impact being measured, this variable could be useful as a selection criterion to identify farmers we should meet and interview in focus group discussions, key informant interviews and in-depth interviews<sup>11</sup>.

Other criteria to identify, select and contact farmer supply entities were the size of the area where crops are being produced for SEKEM, the type of crops, the number of farmers/producers comprised by the entity, and the status of their production practices (year 0, in transition, or fully certified).

#### Relevance

'Beauty is in the eye of the beholder', and in terms of relevance it is quite similar: that is to say that people tend to assess the pertinence of specific activities or results of the efforts made against their own frame of reference, which by definition is subjective. However, relevance is rather the extent to which the activity, project or programme concerned is suited to the priorities and policies of the parties involved and affected by those activities, projects and/or programmes<sup>12</sup>.

In evaluating the relevance of the biodynamic agricultural production practices promoted by SEKEM, the CDI team investigated which SEKEM activities the supplier farmers considered to be pertinent in terms of the effects on the quality of their lives, their households and the conditions they are living in, considering the following questions:

<sup>9</sup> This study looked into the impact of a medical outreach programme, and projects to construct a plant for waste water treatment, waste separation facilities, and the functioning of the Vocational Training Centre, a microcredit financing scheme, and of an educational programme and health services for working children (Annex 9, reference # 24).

<sup>10</sup> See Annex 2

<sup>11</sup> Most suppliers we interviewed had a long-standing relation with SEKEM, and there were fewer farmers who were recently contracted (see Annex 2).

<sup>12</sup> <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

To what extent are the objectives of the programme still valid?

- Are the activities and output of the programme consistent with the overall goal and its objectives?
- Are the activities and output of the programme consistent with the intended impacts and effects?

The CDI team has been seeking farmers' views on their role in the supply arrangements, and seeking their appraisal of specific aspects of these arrangements. The evaluation study therefore sought:

- To review the reasons that farmers participate - including identification of entry barriers, and factors that make them stay with SEKEM, - or to leave and to continue organic production practices or revert to conventional modes of production;
- To review trends in farmer participation over time; and
- To identify any significant shifts in the model.

### Sustainability

As SEKEM has already worked extensively with its partners on the ecological and technological dimensions of the biodynamic mode of production, in this study the sustainability of the results which the farmers achieve by engaging in supply contracts with SEKEM is chiefly considered from a socioeconomic perspective and examined by:

- Reviewing how farmers assess the profitability of biodynamic farming as compared to conventional farming (through interviews and by analysis of crop budget information);
- Reviewing trends in the active involvement of supplier farmers in the daily farm operations, the overall management of organic production activities, and in monitoring required by the Demeter certification procedures;
- Identifying any aspects of the model that seem to be under strain (through discussions with farmers, SEKEM personnel and the field agronomists), and;
- Discussing the future strategy with SEKEM management.

### Efficiency and effectiveness

The SEKEM supply model is highly effective. With the assistance of EBDA during the transition period of three years to make the switch from conventional farming to organic farming, and under close supervision<sup>13</sup> and guidance or the purposes of from the SEKEM/EBDA agronomists after having obtained certification, the supply entities manage to produce the crop types required by SEKEM in the volumes stipulated by the supply contracts.

The issue of efficiency was addressed at farm level by comparing the input/output ratio of biodynamic farm operations to the input/output ratio of conventional farming practices to see whether the resources available were used to the best effect. This was covered in focus group discussions and/or key informant interviews with SEKEM and EBDA staff and management, farmers (SEKEM and non-SEKEM farmers) and farm visits.

### 1.4.3 Fieldwork

In the first meetings with staff from SEKEM, EBDA and Heliopolis University in the last week of November 2014, the CDI adjusted the planning of the activities originally suggested in the project proposal based on the actual conditions: the original list of supplier entities needed to be updated, the groups of farmers and individuals to be interviewed had to be defined and contacted to determine the dates and locations for the interviews, and the logistics for the field visits had to be organized.

	2014		2015			
	Nov	Dec	Jan	Feb	Mar	Apr
Initial meetings		■				
Introductory training		■				
Fieldwork		■	■	■		
Analysis, draft, clarifications				■	■	
Validation workshop						■
Final report						■

In the first two weeks of December, before the start of the actual fieldwork<sup>14</sup>, training sessions were organized to explain to SEKEM staff members, and staff and students from Heliopolis University who were to participate in the field visits, the purpose of the impact evaluation study, the approach to be implemented and the participatory crop budget methodology to be used.

Fieldwork was conducted in the governorates of Fayoum, Beheira, Kafr El-Sheikh, Giza (Bahariya Oasis), Kaliubia and Ismaelia. The first field visits were made to Ismaelia and Kaliubia, and the other four areas were selected because they were reasonably well accessible, and represented large numbers of SEKEM suppliers and key crops grown for SEKEM.

**Representativeness of Fayoum, Beheira, Kafr El-Sheikh and Bahariya (Giza)**

Thirty-four of the 52 supplier entities [65%] contracted by SEKEM for the summer campaign 2014 are located in these four governorates. Most SEKEM supplier entities comprise more than a single farmer, and taking that into account, the potential number of farmers/producers involved in these governorates accounts for 71% of the total of 489 farmers working at the 128 supplier entities. No data could be traced concerning the labour that was occasionally hired during the production cycles.

Data sourced from COAE statistics 2014

Throughout the study, the CDI team members collecting the data maintained continuous contact with Oikocredit and SEKEM (particularly with its Sustainable Development team) by phone or email, or in person, on queries that arose during the fieldwork or from the analysis of secondary data.

In total, **21 focus group discussions** were held with 104 discussants, representing SEKEM and non-SEKEM farmers, women and young people. The team conducted **40 key informant interviews** with individuals from those same categories as well as with staff and management from SEKEM, EBDA, the agronomists at the farms, and Heliopolis University staff and students<sup>15</sup>.

After completing the field work, a summary of preliminary findings was prepared, together with some questions, to share with the CEO and the Chief Sustainable Development Officer of SEKEM.

<sup>13</sup> For the purposes of this research, the term 'supervision' has been used to refer to actively overseeing/managing the performance or operations of the heads of the supplier entities.

<sup>14</sup> For details on the field work programme see Annex 2, whilst in Annex 3 we present the checklists and guiding questions used in focus group discussions and key informant interviews.

<sup>15</sup> See Annex 2 on the schedule of the field visits and interviews.

#### 1.4.4 Constraining factors during implementation

During the preparation and implementation of the fieldwork, certain limitations became evident, the main ones being:

- The fieldwork was originally planned for December 2014 and January 2015. However, creating the right logistical and organizational conditions took longer than expected and affected the planning. Combined with the reduced availability of staff and students of the Heliopolis University due to the end of the year holiday break and examinations held in January, most fieldwork was actually carried out between mid-January and mid-February;
- The database on the SEKEM supplier entities available at the start of the study had to be updated and supplemented with more detailed information while the fieldwork had already started. By mid-February 2015 the most complete farm lists over the past decade were supplied, which was still in time for the purposes of analysis, but too late to make a better informed selection of farmers to be interviewed;
- To effectively apply the criteria relevant to the selection of representative samples of farmer categories (duration of contract with SEKEM, farm size, age group, and number of farmers per supplier entity) turned out to be rather difficult, and thus, the selection of the interviewees was more the result of people's presence, accessibility and personal contacts – nonetheless representing key areas and crops for SEKEM supply. Most meetings and interviews were with larger farmers (supplier entities growing crops on 20 - 340 feddan) and farmers supplying the main contractor owning 10-50 feddan, including sharecroppers<sup>16</sup>;
- Arranging interviews with women and young people related to the supplier-farmers and from the communities these farmers belong to, and finding a control group of farmers not affiliated to SEKEM was something new for the EBDA staff and agronomists. This may be due to fact that the agronomists did not have previous experience with the conditions required for conducting impact evaluations, and because their contacts were mostly limited to men working at the supplier entities.

### 1.5 The national socioeconomic context

#### 1.5.1 Economic growth rates and population growth

Since the Arab Spring in 2011, economic growth rates in Egypt have averaged around 2% p.a. (IMF, 2014), and have barely kept pace with population growth. In the nineties, Egypt saw strong growth, with annual growth rates in the period 2005-2010 ranging from 4-7% (World Bank data). Key contributors to GDP are: industry, petroleum and mining (30%); trade, finance and insurance (22%); services, including tourism (17%); agriculture (15%); and transport, communication and Suez Canal (10%)<sup>17</sup>.

#### 1.5.2 Human development and poverty

Between 1980 and 2013, human development in Egypt improved as measured by the Human Development Index: in 2013, the mean gross national income per capita amounted to US\$ 10,400; on average people's education expressed in years of school attendance had tripled from 2 to 6.5 years, and life expectancy at birth had increased from 58 to 71 years.

The aforementioned data are based on averages, and if inequality is taken into consideration, overall human development is less. In 2013, Egypt ranked above average in the group of countries achieving medium human development, matching the average for the Arab States<sup>18</sup>. The gains made were largely because of rapid growth in jobs

and incomes in the late 90s accompanied by expansionary monetary and fiscal policies that were not fully sustainable (El-Laithy, 2011).

#### Box 1.1 Trends in living conditions in Egypt

In 1995/96, poverty stood at 19.4%, declining significantly to 16.7% in 1999/2000. The gains achieved in reducing poverty from 1995-2000 were offset by the increase in poverty from 2000-2004 back to 19.6%. In 2008-09 overall poverty in Egypt stood at 21.6%, which implies that about 16.1 million people could not obtain their basic food and non-food needs.

Since the Arab spring (2011), the incidence of poverty has increased – rising to 26.3% of the population in 2012/2013 and much higher in some governorates, particularly in the rural areas of southern Egypt (AfDB, OECD, UNDP, 2014) where 55.8% of the poor live, yet its share in poverty far exceeds its population share of 26.6%). With recent cuts in fuel and food subsidies (2014), poverty levels are likely to have increased further. In addition to differences in educational levels, job availability, and the availability of public services, roads and markets, variation in the quality, cropping patterns and land ownership of agricultural land may contribute to the wealth gap seen between regions.

(UNDP, 2014)

<sup>16</sup> In Egypt there are numerous variations on what might be called 'share-cropping' including more equal arrangements where landowners or farmers may lack the capital to invest – so partners contribute capital and all work equally on the land, with different modalities for sharing revenues, depending on the specific agreement made.

<sup>17</sup> AfDB, OECD, 2007

<sup>18</sup> UNDP, 2014

## 2. SEKEM's operations – working with farmer suppliers

### 2.1 SEKEM

SEKEM is an ancient Egyptian word referring to the life-giving force of the sun. SEKEM's visionary founder, Ibrahim Abouleish, had a dream to create an oasis in a hostile desert environment, but actually he felt this as a deeply rooted longing to develop the entire world<sup>19</sup>.

SEKEM promotes biodynamic farming, a form of organic agriculture proposed by Rudolf Steiner<sup>20</sup>. Whereas its standards are recognised globally, it is most widely practised in Germany, Austria and Switzerland.

At its core, SEKEM is about the development of local organic produce to supply a mainly local market within a business system that seeks to promote holistic farming practices combining care of the physical environment (in particular the land) with human development. Helmy Abouleish (son of SEKEM's founder and present CEO) refers to this approach as the "economics of love," and an associative business model with elements akin to what is more widely known as fair trade.

SEKEM is much more than just a production and profit-oriented company organizing some activities under the denominator of corporate social responsibility. This is clearly illustrated by the multiple initiatives and projects designed and implemented beyond the domain of biodynamic agricultural production, such as the establishment of the SEKEM Development Foundation, a school for primary education, a vocational training centre, a health clinic, a children's care centre, construction of water and sanitation facilities, the founding of the Heliopolis University, and the organization of seminars, cultural events and workshops, all nursed and stimulated by SEKEM's basic philosophy and spiritual inspiration.

#### 2.1.1 Scope of operations

With the exception of the last two years, SEKEM has been growing steadily since its foundation in 1977. Having started as a farm on 70 ha in the desert, the SEKEM Holding now hosts a group of nine companies (see Annex 6) with over 1,200 employees, a turnover of more than EGP 312,000,000 with a share of 80% (according to SEKEM's CEO) of the national market in terms of organic produce, and is linked to the international markets through a network of international distribution channels.

SEKEM is not the only supplier of locally sourced organic products on the Egyptian market, but it certainly is the largest, and probably the best known. SEKEM is effectively a household name in Egypt (particularly for its herbal and medicinal teas), with significant market penetration for some of its products (e.g. anise tea).

Although the national economy has suffered since the Arab Spring of 2011 and SEKEM saw its local market sales fall 20-30% over the period 2011-2013, its medium to long-term growth prospects are favourable (growth in population and incomes, as well as a potential recovery in tourism).

#### Focus on domestic and export markets

SEKEM's export business mirrors a longer trend of almost all Egyptian commodities steadily gaining (global) market share<sup>21</sup>. Whereas a large part of Egypt's agricultural export has been concentrated on low-value crops (sugar cane, rice, cotton), SEKEM stands out for its focus on relatively high-value niche market products (i.e. the production of organic

cotton and medicinal herbs, as well as conducting recent farmer trials<sup>22</sup> e.g. on quinoa). Assuming SEKEM can maintain its levels of quality, reliability and price competitiveness, this approach to the export and domestic market seems to guarantee it (and those sharing in its gains) a positive medium to long-term growth trajectory.

#### 2.1.2 Working with farmer suppliers: the SEKEM model

Currently, SEKEM sources its supply from a pool of some 128 supplier entities, located throughout the Delta, the Nile Valley and the Bahariya Oasis. The SEKEM companies determine the volumes of the various types of crop produce they need for every cropping season, and these volumes are translated into production plans and supply contracts with these entities. Most supplier entities subcontract (formally or informally) a wider group of farmers, including sharecroppers (potentially as many as 413 farmers). All land where crops for SEKEM are grown should be certified<sup>23</sup> to meet the Demeter biodynamic production standards.

Part of the crop volume SEKEM needs, it produces on five farms of its own in Bilbeis, Minia, Sinai and Bahariya Oasis (with a total surface area of over 1,600 feddan). SEKEM may also purchase additional (non-contracted) items from its regular supply base, or buy on the open market. Farmers are paid in two stages – 50% upon delivery of the crop and 50% following analysis for pesticide residues.

#### Outreach

Through (mainly) local sourcing, including the introduction of crops hitherto little known in Egypt, as well as processing at source (e.g. the drying of herbs and packaging of dates) or at its factories in Bilbeis, the SEKEM enterprise group reaches out to large numbers of mainly rural people and their families, such as the contracted supplier farmers, and through them to subcontracted farmers, agricultural labourers, factory workers, and people working in extension and certification, or supplying farm inputs for organic agriculture (including greenhouse plastics<sup>24</sup> and packaging material). This is important since Egypt's economic recovery and growth must partly rest with the agricultural sector, on which large numbers of the rural poor depend. All the better therefore, that operations at farm-level are labour-intensive.

In recent years, the number of suppliers has decreased. According to the SEKEM CEO, this is partly due to the recent decline in the domestic market and because of environmental pollution, especially of water and air, in particular, in places such as Fayoum and Beni Suef<sup>25</sup> following the difficulties in the period 2008-2010. These problems contributed to cash flow difficulties, which led to late payments to suppliers. In turn, this may have exacerbated the decrease in the number of suppliers.

Nonetheless, the EBDA/COAE lists indicate that SEKEM still has an active supply base of 90 entities potentially covering around 500 farmers/producers. In the summer season 2014, SEKEM contracted 52 entities. And because almost all crops grown for SEKEM are more labour-intensive than conventional production (by 15-30%), the SEKEM operations affect a larger group still<sup>26</sup>.

<sup>19</sup> Abouleish, 2004

<sup>20</sup> Kristiansen et al., 2006

<sup>21</sup> Booz et al., 2007, with specific reference to 2000-2004.

<sup>22</sup> Farmers in Fayoum mentioned these trials.

<sup>23</sup> Demeter is the brand for products from biodynamic agriculture [www.demeter.net](http://www.demeter.net)

<sup>24</sup> Plastics are permitted under the Demeter certification, although intuitively this could be viewed as counter to its 'green' credentials; the team understands that only one supplier provides SEKEM with vegetables grown under plastic.

<sup>25</sup> According to SEKEM's CEO, this is also a result of improved capacity in Europe to detect pollutants on imported products.

<sup>26</sup> Many farmers – even relatively small farmers – in Egypt hire casual labour to help with labour-intensive tasks.

## 2.2 How to become a SEKEM farmer supplier

To promote biodynamic agriculture, SEKEM works in partnership with EBDA, the Egyptian Bio-Dynamic Farmers Association<sup>27</sup>.

EBDA provides technical support to farmers switching from conventional farming to certified biodynamic agriculture through a three-year transition process<sup>28</sup>.

Its staff of agronomists provide technical and managerial input to the supplier entities, supervising the correct application of the biodynamic production practices, once they are certified.

### 2.2.1 Participation requirements

SEKEM describes the most important aspects of the biodynamic system as follows<sup>29</sup>:

1. The minimum area per supplier entity is 10 feddan (20 feddan if new lands) – this can be achieved through farmer association<sup>30</sup>. One feddan is 0,42 hectares (60 x 70 metres);
2. Green fence around the farm for protection;
3. One head of cattle (e.g. a cow or a buffalo) per two feddan, or some small livestock;
4. Soil preparation must strictly adhere to the requirements of biodynamic agriculture; these are provided by EBDA<sup>31</sup> and the costs are included in the EBDA fees;
5. Biological pest control is compulsory; use of chemical pesticides is not allowed;
6. Farmers must submit a detailed cultivation plan to the Centre for Organic Agriculture in Egypt (COAE)<sup>32</sup>.

The aforementioned features are also used as criteria to identify and select farmers who are willing to enter into contractual agreements with SEKEM to grow specific crops to supply SEKEM. It seems that in the past the SEKEM/EBDA agronomists identified and approached potential suppliers – and usually after the initial contact, such farmers had more extensive discussions with the agronomist and sometimes with members of the Abouleish family or other staff from SEKEM/EBDA headquarters. Recently, supplier numbers have dropped, and there seems to have been little recruitment.

For small farmers it is difficult to comply with the entry requirements, in particular the minimum land area<sup>33</sup> and ownership of animals, and to bridge the dip in income caused by the three-year transition period, during which the productivity of the soils temporarily declines, while the crops produced cannot yet be sold as being fully organic. Also the staggered payment (50% at delivery of the crop, 50% after the produce has been tested) is a problem for small farmers with little or no reserves.

SEKEM's CEO indicates that as far as the future is concerned, the strategy will be to increasingly focus on a smaller number of larger supplier entities (and presumably on production at SEKEM's own farms) – particularly on new land and places which are not polluted, such as at the edges of 'old lands'.

<sup>27</sup> [www.ebdaegypt.org](http://www.ebdaegypt.org)

<sup>28</sup> To illustrate the intensity of this interaction: note that SEKEM/EBDA currently employs 32 agronomists. In many cases, the agronomist is at the farm almost daily. For the summer season 2014 SEKEM contracted only 52 suppliers.

<sup>29</sup> For certification purposes, the application of the biodynamic astrological calendar for farm operations promoted by EBDA is not required.

<sup>30</sup> According to the COAE/EBDA data, the average size of land per supplier entity is 5.1 feddan (2.1 ha).

<sup>31</sup> For quality and capacity reasons (source: SEKEM).

<sup>32</sup> [www.coae-eg.com](http://www.coae-eg.com)

<sup>33</sup> See box 3.1 for the average size of land holdings.

### 2.2.2 Demeter certification

The certification process takes three years and during this period the farmer must learn and apply all the biodynamic practices. The actual certification is carried out by the COAE. After certification, COAE staff inspects the farms twice a year. COAE is accredited and recognized by the European Union, the International Demeter Organization and GlobalGAP as an inspection body.

Only after the process is complete, SEKEM can buy the crops grown at the farm as certified organic produce, but during the transition period SEKEM assists the producers with advice and instruction on how to apply the correct practices for organic agricultural production, sometimes also providing seed and compost. Once certified, SEKEM and the farmer enter into a contract (contracts are written for each crop supplied) and to ensure that crop production goes according to plan and Demeter standards are met, a SEKEM/EBDA agronomist works closely with that supplier, often on a daily basis.

## 2.3 The SEKEM supply base and the data available

### 2.3.1 Data presented in the EBDA and COAE databases

Whereas for monitoring the production, the number of farmers who deliver their crops through the supply entity (whom we, for the purpose of this study, can refer to as 'sub-contractors') may not be considered relevant, for the purpose of the impact evaluation, their involvement in producing crops for SEKEM certainly is very relevant.

The EBDA list presents data on:

- The name of the supplier farmers
- The farm location
- The farm operator
- The type of crops grown
- The status of the production (fully certified, in transition, or in year 0)
- The expiry date of the certification and the areas under those crops

The COAE data also states:

- Since when the supply entities had been contracted by SEKEM
- The portion of the total area with crops grown for SEKEM

The Crop-Walker planning tool:

- This software farm management tool, used by SEKEM/EBDA to plan, allocate and monitor the production volumes of the various crops by the supplier entities, also contains specific data per supplier entity.

#### SEKEM supplier entities: contract farmers, subcontractors and farm labourers

The Terms of Reference (ToR) for the impact evaluation study stipulate that SEKEM wants to gain insight into its impact on its supplier farmer entities. Although not spelled out in the ToR, this implies that the effects on the 'sub-contractors' should be looked into, because they play an essential role in the SEKEM production model, contributing with their plots, cattle and labour to comply with the agricultural production practices required for biodynamic farming.

Aside from the casual labour involved, it turned out to be quite difficult for the evaluation team to collect information on the characteristics of all farmers contributing to the overall production of the supplier entities; partly because SEKEM has no documentation on this group and partly because there are a number of different production arrangements, that almost certainly change over time.

### The data available on the SEKEM supply base

The best overview of the SEKEM supply base comes from records from COAE, supplemented by information from EBDA. In early 2014, there were 90 active suppliers, potentially comprising 413 farmers in 16 governorates and 57% of the suppliers were located in Upper Egypt.

**Table 2.1 Geographical spread SEKEM farmer suppliers per December 2014**

	Governorates	Supplier entities	Farmers
<b>Nile Delta</b>	Beheira	23	67
	Modrait el Tahrer	1	3
	Dekahlia	1	2
	Kafr el Sheikh	1	24
	Sharkia	3	5
	Ismaelia	4	7
	Cairo	1	1
	Kaliubia	3	4
	Monofia	2	3
			39 [43%]
<b>Upper Egypt</b>	Giza	8	12
	Fayoum	12	233
	BeniSuef	5	5
	Minia	12	27
	Asiut	7	10
	Sohag	5	8
	Aswan	2	2
			51 [57%]
<b>Total</b>		<b>90</b>	<b>413</b>

As is evident in table 2.1 above, most of the supplier entities and most of the suppliers are situated in governorates of Upper Egypt. Also the number of producers per supplier entity in Upper Egypt is higher than in the Nile Delta.

### 2.3.2 Diversity among the supplier entities

SEKEM is not only interested in the social and economic impact it has on the supplier farmers with whom it has a formal contract, but is also interested in the impact on the other farmers who produce part of the total crop volume that is supplied to SEKEM. EBDA keeps records on the SEKEM supplier entities, the crop volumes to be produced and the actual crop volumes supplied. It also keeps indicative data on the number of producers per supply entity (although in any given season not all of those farmers will contribute to the supply of produce for SEKEM). Information routinely recorded by SEKEM relates to the supply by the contracted supply entities (and not the details of the arrangements with what are effectively 'subcontractee' farmers).

On average, the supplier entities have three to four subcontracting farmers each, who channel their produce through the supplier entities with a formal contract. Some 60 supplier entities do not have subcontractors, and there are five entities with 10–24 subcontractors. There is even one supply entity in which 170 farmers/producers collaborate<sup>34</sup>.

### 2.3.3 Reliability and interpretation of secondary data on supply entities

The data thus analysed on supplier entities should be considered with caution, because:

- The original data files showed certain gaps, omissions, and sometimes a lack of consistency;
- During fieldwork, there was some indication that the surface area certified was smaller than the surface area owned, leased or rented - and also smaller than the area farmed organically<sup>35</sup>.

### 2.3.4 Field conditions

For practical reasons fieldwork was conducted in six governorates (Giza, Beheira, Fayoum, Kafr-El-Sheikh, Ismaelia and Kaliubia), which nonetheless provided good representation of the main supply areas and crops for SEKEM. During the collection of the field data a number of constraining factors became evident that affected the information that could be gathered. Creating the logistical and organizational conditions turned out to be more complicated than expected, and by lack of an up-to-date, comprehensive list of the supplier entities at the start of the field work, the selection of interviewees (focus groups, key informants) in part reflected accessibility and personal contacts. The sample of interviewees mostly comprised farmers who had been a SEKEM supplier for a long time (>10 years), and most entities cropped larger areas.

<sup>34</sup> See Annex 8 for a detailed overview of the numerical data available on the supplier entities.

<sup>35</sup> Data on the area certified may not show the entire area under organic farming: farmers pay a certification fee per feddan and therefore may prefer not to certify all their land.

### 3. Evidence of development impact at farmer-level

In the following paragraphs we present the major findings based on the data collected during the field work, and the result of the compilation information supplied by EBDA and COAE.

#### 3.1 The supplier farmers

##### 3.1.1 Variations in background

During fieldwork, the CDI team identified varied examples of supplier farmers (i.e. the farmers who sign the contracts with SEKEM on behalf of the supplier entities). They were:

- Career farmers managing significant land holdings as a family business;
- Retired civil servants and teachers;
- People also possessing agricultural processing plants;
- People who left other sectors to work or manage land they had purchased or inherited;
- Farmers with a family tradition in farming, producing crops for SEKEM through the supplier entity registered in the name of the farmer supplier holding the formal contract with SEKEM.

Some farmers manage their farm at arm's length, while others are fully engaged in all farm operations. The way the farmers benefit from their supply contracts with SEKEM, varies according to their professional, social and cultural background, competence, experience and ambitions.

The aforementioned factors compounding the farmers' profile might also be relevant in determining their capacity to manage organic agricultural production with less intensive – or even no – support from the SEKEM/EBDA agronomists. Moreover, having a more detailed knowledge of the farmers' profiles, SEKEM might also be able to identify human resource potential that can be mobilized to engage in social and cultural initiatives beyond the domain of organic production techniques.

##### 3.1.2 Ownership and acreage for certified cultivation

A detailed picture of land ownership is not available. SEKEM does not maintain a database of farmers who supply the main contractee. Therefore it is difficult to verify the farmer numbers, especially where these are very high (in Fayoum one supplier reportedly comprises 170 farmers). Similarly the data on the land area certified may not accurately represent the area owned or under organic farming. Farmers pay per feddan for certification so they may prefer not to certify all their land.

During fieldwork, it was found that the farmers own or rent an area that is bigger than the certified area used to grow crops for SEKEM, and produce more crops organically. Acreage recorded in the COAE list represents the total surface area involved, including the plots of other farmers covered by the supplier entity, but only shows the portion of land purposively certified for supply to SEKEM.

Box 3.1 Average size of land holdings in Egypt and SEKEM supply farms

In Egypt, land holdings are fragmented. The overall average farm size is 2.05 feddan (0.86 ha). About 10% of farm households have more than 4 hectares (Eurostats 2013). According to the COAE/EBDA data, the average size of lands per supplier entity is 5.1 feddan (2.1 ha).

Table 3.1 Distribution of the various farm sizes among SEKEM supplier entities

Supplier farm surface area	2002/2003		2007/2008		2010/2011		2011/2012		2012/2013		2013/2014	
< 10 feddan	31	26	13	10	7	3	5	4	5	4	5	4
10 – 15 feddan	15	12	18	13	28	14	17	14	17	15	25	22
15 – 25 feddan	37	31	34	25	49	24	29	24	31	27	32	28
25 – 50 feddan	28	23	42	31	72	35	40	33	37	32	35	31
50 – 75 feddan	3	2	15	11	25	12	15	12	11	10	11	10
75 – 100 feddan	4	3	5	4	12	6	5	4	3	3	0	0
>100 feddan	4	3	8	6	12	6	11	9	10	9	5	4
Supply entities [#]	122		135		205		122		114		113	

Information collected from the farmers, SEKEM and EBDA, suggests that many suppliers (but not all of them) own significant parcels of land (by Egyptian standards) of the order of at least 50 feddan (about 20 hectares)<sup>36</sup>.

The table in box 3.1 shows that the number of supplier entities below 10 feddan has fallen significantly over the last decade (down from 26% to 4%), whereas the number of supplier entities between 10 and 15 feddan has steadily increased (from 12% to 22%). Apart from the unexplained peak in 2010/2011, the number of supply entities has been fairly constant over the last decade, although for the summer season 2014 it dropped to 90.

#### 3.2 Changes as a result of interaction with SEKEM

The field team sought to understand what changes had taken place as a result of farmer interaction with SEKEM, bearing in mind the key questions as formulated in the CDI study proposal based on the ToR for the impact evaluation study. In the following paragraphs we present our findings as related to the three core questions and a request:

- What is SEKEM's impact on its farmer suppliers? (and this question in turn requires an understanding of which success factors are most important to farmers);
- How well does the SEKEM model promote inclusive agribusiness that combines both sustainability and competitiveness?
- Does the SEKEM model demonstrate that private business can promote 'development' i.e. a development role for the private sector, and not just for governments or not-for-profits?
- To draft the contours of a baseline against which SEKEM can track impact over time and identify areas in which adjustments are needed to improve sustainability.

To be able to do a - c it is essential to determine a baseline.

<sup>36</sup> According to the COAE data, contract farmers may own several farms as different supply entities – also one family may own various farms, each shown under different names but managed as a single farm unit.

**SEKEM CEO expects SEKEM to restore timely payments by the next winter season**

When asked about this, the SEKEM CEO was not surprised that payment concerns had been raised and explained that the significant decline in the local market (2011-2013) had created major problems for SEKEM. Moreover, more stringent chemical analysis in Europe, following the period 2008-2010, meant that some problems with environmental pollution (water, air) had been identified in areas such as Fayoum and Beni Suef. He was confident that the situation was now improving and “would be back to normal by the next winter season, even back to the ‘good old days’ when SEKEM could actually pay partly in advance.”

**Impact 2: Employment**

The most important development impact is the increased demand for farm labour – an outcome that is especially important in poor and labour surplus areas (often manifested by out-migration in search of employment). Thus, labour-intensive biodynamic and organic agriculture is particularly important in places like Fayoum. Whether the effect is felt by those who actually work in the fields with crops for SEKEM, or whether the effect is felt by other farm labourers at the margin, the application of organic farming practices reduces the need to migrate in search of work.

Labourers from Fayoum migrate all over Egypt in search of work, often leaving their families behind, with periodic visits home. At present, with the Egyptian economy suffering and Egyptian migrant labour returning from other countries in the region, the search for work has become particularly intense.

In contrast, larger farmer suppliers in the Nile delta complain that labour costs are becoming a constraint. They report that despite the current economic downturn, young people prefer incomes they think they can earn in nearby urban areas such as Alexandria (two SEKEM/EBDA agronomists suggested SEKEM should help these farmers mechanize to reduce labour-demand). This quote just reflects the fact that richer farmers consider mechanization, while poorer farmers and unemployed people appreciate the opportunity to gain an income. Under which conditions labour or mechanization is preferred requires much more reliable information than we have been able to collect in this study.

**3.2.1 Inclusive agribusiness combining sustainability and competitiveness**

In the following section we take a closer look at the sustainability and competitiveness of the model.

**Promoting sustainable agribusiness**

Whereas many small farmers in Egypt, practicing conventional farming also use compost and many do not use agro-chemicals, SEKEM supplier farmers are making very intensive use of organic inputs and are aware of the importance of crop rotation and attentive crop husbandry. The SEKEM farmer supply model is very hands-on, and closely supervised, and the SEKEM farmers (both the farmer who signs the contract with SEKEM on behalf of the supplier entity (the contractor), as well as the other farmers contributing to the total crop volume to be produced by that entity (the sub-contractors) have shown themselves to be well acquainted with the demands (and opportunities) of organic farming. Once having obtained certification, they also receive full assistance from the SEKEM/EBDA agronomists in the implementation of organic and biodynamic production practices.

**The role of the SEKEM/EBDA agronomists**

The farmers stated that they like to work in this way and they appreciate the interaction with the agronomists, with whom they seem to form a convivial and respectful working relationship – often over many years (“*He’s the expert – he knows best; he explains the plan, he instructs us, he checks and tells us what we need to do*”). Based on the

frequency and duration of the visits which the agronomists pay to the supplier entities<sup>37</sup>, it appears that they play a major role in running the supplier entity, rather than the farmer whose name is on the contract with SEKEM<sup>38</sup>.

**Farmers’ capacity to comply with certification requirements**

According to SEKEM, this approach has built strong capacities for biodynamic farming, and it helps farmers to adjust to continuous change and further development of (biodynamic) production guidelines. The level of this type of technical and managerial assistance does not seem to be reduced over time (not even after, say, 20 years). The evaluation team was concerned about the high intensity of the assistance and whether this was sustainable. Familiar with practices elsewhere, the team was led to ask whether the SEKEM/EBDA agronomists were tasked with systematically building the farmers’ capacities in organic /biodynamic production practices, and whether there was an exit strategy, through which the technical support could be gradually reduced.

**Box 3.2 Quality norms, sustainability of technical support and competitiveness**

During the last couple of years, SEKEM has, on average, contracted some 120 supplier entities for the winter season and 50 to 60 entities for the summer season. The number of SEKEM/EBDA agronomists is fairly constant (around 34). This implies that each agronomist is in charge of supervising two to three supplier entities during the winter season and in summer they have to provide support to one or two farms each.

Most supplier entities are under contract for periods longer than 10, 15 or even 20 years.

With such a high intensity of supervision and support over such extended periods of time, it seems worthwhile for SEKEM to explore ways of developing the farmers’ ability to comply with the production standards for certification in a much more autonomous way.

Discussing the role and tasks of the agronomists we learned from the agronomists and the farmers, that apart from giving guidance, supervising correct application of production techniques and quality monitoring, the tasks of the agronomists are mainly (if not exclusively) geared to management, organization, agro-technology and supervision of production practices.

**Practices elsewhere**

SEKEM promotes sustainable, biodynamic agricultural production practices, and ensures quality control by providing assistance during the transition and continued intensive technical and managerial support to the supplier entities (after certification has been acquired). This approach is quite different from cases of commercial certified contract farming or outgrower schemes in other countries.

Many projects and programmes based on the intensive supervision of numerous beneficiary groups have shown good results in the short term, but they have also proven to be utterly unsustainable in the long term, because sooner or later, such programmes run into the boundaries of replication and/or expansion, simply due to a lack of financial and human resources<sup>39</sup>.

<sup>37</sup> SEKEM/EBDA currently employs 32 agronomists and for the summer season 2014 only 52 suppliers were contracted; in many cases, the agronomists visit the farms on a daily basis.

<sup>38</sup> The SEKEM CEO explained that this intensive supervision was necessary to maintain the integrity of the biodynamic farming system and to assure that the crop meets quality standards for products marketed under SEKEM’s name.

<sup>39</sup> Anderson, Feder & Ganguly, WSRP Anderson, Jock R.; Feder, Gershon; Ganguly, Sushma. 2006. The Rise and Fall of Training and Visit Extension: An Asian Mini-drama with an African Epilogue. WPS3928 World Bank, Washington.

In many countries in Asia, Europe, Latin America, sub-Saharan Africa, the central production units (mother-farms, nucleus estates, the producers' organization, etc.) hosting supply schemes with smallholders, outgrowers, contractors and subcontractors, often seek to build farmer capacity to organize and associate. By developing the farmers' capacities to run their farms themselves, in a professional way and complying with quality requirements, such farmers hardly need any more support over time. In that way, the mother company can redirect its coaching and support to other, new groups, or adjust the tasks of the farmer support staff to cover other development goals. Such capacity development is often driven by a wish to hand over company roles (and hence costs) to the farmers themselves, who may also benefit through higher net revenues (in recompense for their expanded role).

No evidence was found that SEKEM is actively applying such an approach to develop these types of capacities at farmer-level<sup>40</sup>. Suppliers do attend meetings and events at the mother farm in the delta but these tend to be more focused on contracting arrangements, networking and information about the wider SEKEM group and its activities, rather than building the farmers' capacity to run their farms autonomously in line with certification standards.

**Sustainability and changes in the SEKEM supply base**

Based on the information supplied by COAE and by EBDA concerning the numbers of supplier farmers (covering the period 2007 – 2014), the evaluation team was able to trace trends over time – both in terms of crop areas and in terms of the numbers of supply entities.

Data analysis suggests that:

- Most supplier entities have been under contract for 10 years or more;
- The number of contract farmers is slowly but steadily decreasing;
- The average surface area per contract farmer is increasing.

**Box 3.3 Investment in new lands**

In 2000, SEKEM supplier farmers in Fayoum purchased 100 feddan of unimproved 'new land' for LE 45,000 per feddan. This new land, sandwiched between the existing cultivated area and the desert, had not been levelled and consequently lacked water, (until a well was sunk) and electricity. At the prevailing exchange rates, the price paid would have been the equivalent of about US\$ 30,000 per hectare – an amount that exceeded a rather good annual gross salary for many good professional (private sector) workers at that time.

**Length of period during which supplier entities are contracted by SEKEM**

Reviewing the database on the characteristics of the supplier entities, it is apparent that the vast majority of SEKEM's actual supply contracts are with supplier entities that have been under contract for 10 years (87%), 15 years (44%), or even longer than that. In the aftermath of 2011 (when the Arab spring had a temporarily adverse effect on the Egyptian national economy) only five new supplier entities were contracted by SEKEM (see Annex 5).

**Competitiveness of organic farming vs conventional farming**

Originally, the evaluation team planned to draw up fully-specified crop budgets with the farmers, but this proved to be virtually impossible. The farmers were reticent about sharing detailed information on costs and pricing, and the information which was gathered was incomplete or clearly incorrect<sup>41</sup>.

Instead, comparative budget outlines were constructed with groups of farmers for some crops widely grown, enabling various dimensions of organic crop budgets to be compared with conventional crop production budgets (see also Annex 4).

For the most part, these comparative budget outlines indicate the following tendencies about organic production for SEKEM relative to 'conventional production':

- Yields tend to be lower;
- Output prices are higher;
- Labour needs are higher (15-30%);
- Production costs are lower (despite higher labour costs).

**Table 3.2 Differences (+/-) in production costs of various crops**

	Productivity	Price	Gross rev	Costs <sup>1</sup>	Labour
		EGP/quintal	EGP/feddan	EGP/feddan	
Cotton	-23% <sup>2</sup>	+ 50	4510 <sup>3</sup>	- le 5000 <sup>4</sup>	+ 30%
	Farmers find cotton relatively unprofitable, whether organic or conventional, but recognize the benefit (soil preparation) to following crops.				
Fennel					+ 20-25%
	Farmers are enthusiastic and regard organic fennel as a profitable crop but the information provided was incomplete or incorrect.				
Peppermint	-29%	+ 30%	2000	less costs	+ 15-20%
	Farmers are enthusiastic and regard organic peppermint as a profitable crop – so the cost savings must exceed LE 2000 per feddan by quite a margin.				
Dates	There seems to be hardly any difference between organic and conventional production of dates (few chemicals are used except for protection against the red palm weevil).				

**Notes**

- <sup>1</sup> Purchased inputs including labour, where applicable
- <sup>2</sup> Yield of organic cotton roughly 10 quintal/feddan
- <sup>3</sup> Assuming the normal farmer price for cotton is EGP 1670/quintal
- <sup>4</sup> A feddan is roughly equivalent to an acre (1.04 acres or 0.42 hectares)

Variation in the strength of these results is in evidence, e.g. labour costs that are higher or subject to strong upward pressure, or with crops largely grown organically anyway (for example, in the oases, dates and liquorice are mainly grown without agro-chemicals – although chemical treatments have become more common lately since the emergence of the red palm weevil).

It is worth noting that in Egypt, current trends in prices (and the exchange rate) increasingly favour organic production since such production requires fewer imported inputs<sup>42</sup>, whereas the inputs for conventional agriculture will become more expensive as fossil reserves become scarcer, and because recently the government reduced subsidies on agro-chemicals, and may further reduce these subsidies in the near future as part of its policies to reduce public expenditure.

<sup>40</sup> The evaluation team found no evidence that, SEKEM is using its farms to support and link with contract farmers in the vicinity (e.g. as a conduit for input supply, training or provision of other services). The exception is Bilbeis, where numerous activities are centred, but there are relatively few contract farmers in its vicinity.

<sup>41</sup> Such budgets would tend to undervalue the integrative nature of organic production, particularly with regard to crop rotation, because production costs must be analysed over a minimum of one full crop-rotation cycle ( including periods when less profitable crops are grown) and this cannot be achieved when there is a lack of farm records.

<sup>42</sup> In a study on seven strategic crops in Egypt in 2012 Shah et.al. compared organic production with conventional production. Although they found that in general total costs per feddan for those crops were higher for organic production, for the period up to 2020 they forecast declining costs for organic agriculture, and increasing costs for conventional agriculture.

### 3.2.2 A development role for the private sector

SEKEM would like to see impacts on health and education amongst its agricultural suppliers and the wider group of people linked to the supply chain.

#### Health

In meetings and interviews conducted with the farmers in the six governorates, the interviewees said they were proud and pleased to be engaged in organic production. Some farmers described receiving first-aid kits and training (and one explained how he had consequently been better equipped to deal with a snakebite). SEKEM's insistence on a clean (potable) water supply on some farms and the provision of toilets for farm workers were mentioned. To what extent these have delivered significant health outcomes is unclear. Beyond these statements, there were no indications of the scale or manifestation of these benefits, not even anecdotally.

Enquiries on how the income generated by the crop produce bought by SEKEM was spent failed to elicit references to health expenditure. However, for many people health expenditure is a major source of concern. There could be some health effects, but the interviewees did not mention benefits that can be attributed to the SEKEM operations, despite close questioning. However, it is reasonable to assume that some income resulting from the supply link to SEKEM is being spent, to some extent, on health outlays.

Given the relatively small number of SEKEM suppliers in the larger population, and the necessity of checking for many other factors influencing health outcomes, it is unlikely that even a long term study with a very large sample size would be able to identify any statistically significant health outcomes linked to SEKEM supplier operations<sup>43</sup>.

#### Education

Similar remarks can be made about education where development impacts were equally scarce. The only positive signs were found in a meeting with landowners and another one with young people. Landowners said that SEKEM had helped them think differently about education. Two of them had children studying at Heliopolis University (HU), with 25%-50% discount fees<sup>44</sup> but most sub-contracted farmers seemed unaware that their children could get such discounts<sup>45</sup>. In a meeting with young people in Fayoum, the interviewees commented that the activities of SEKEM had a positive effect on living standards and education levels (see 'Perspectives of young people' below).

Discussing fieldwork findings with the SEKEM staff, surprise was expressed that the evaluation team had not managed to identify any strong indications of health (or education) benefits. The SEKEM CEO informed the evaluation team that in the area around the mother-farm at Bilbeis, SEKEM is involved in a much wider range of activities than on the other farms and that improving trends in health and education outcomes had been identified there. The foundation of the SEKEM University for Sustainability in 2012 also points to a real impact on education.

All the same, when it comes to the farmer suppliers who were targeted for this evaluation and live further away from the Belbeis farm and HU, SEKEM does not seem to have a specific strategy or interventions to address other areas of potential impact. In general, the comments of farmers and agronomists indicate that both groups view organic and biodynamic production and sales as the main focus of the farmer-SEKEM relationship.

#### Other benefits

In general, it was very clear that the farmers appreciate the personal contact with SEKEM's CEO and its founder, Ibrahim Abouleish, often in relation to the farm visits they make (albeit rare). Some suppliers referred to the meetings they attended at Bilbeis, saying that these provided a good opportunity for networking. This and the long-term relationship (SEKEM has worked with some suppliers since the early 90s) seem to have generated considerable goodwill (trust, loyalty) towards SEKEM. A number of comments were made along the lines of "they're good people" and "they honour the contracts," notwithstanding complaints about delayed payments. In contrast, there were a few reports of some other companies/traders that had not paid for crop consignments or had attempted to come back on previously agreed prices.

#### SEKEM support to a development project in Kafr-EI-Sheikh

It is important to note that in the Kafr El-Sheikh governorate, SEKEM recently implemented a broader development project over 20 months, with co-funding from an oil and gas company active in the governorate. The project, which finished at the end of 2014, included a crop supply component. Here, SEKEM was engaged in additional activities including adult literacy, improved pre-schooling, child literacy and the development of a small sewing workshop for women to generate income. The local population (suppliers, non-suppliers, women, and young people) clearly appreciated the SEKEM services in the context of the wider development programme in Kafr El-Sheikh. These services were also the only activities of this kind the CDI team came across during its fieldwork directly aimed at an impact beyond the production of organic produce in volume and quality as stipulated by the supply contracts.

Perhaps, this type of intervention could be replicated in other governorates, and it can be explored as an experience to learn from. It provides an example of what could be achieved by engaging in such activities, provided that the resources can be mobilized to start, operationalize and keep up such initiatives for a period of time long enough to achieve the development goal aimed at.

### 3.2.3 Impact of SEKEM on women and young people

Women and young people are both important categories within the SEKEM supplier entities, along with the contract-farmers, the subcontractors and farm labourers. However, the producer lists kept by EBDA and COAE over the last decade do not provide information on the age of the supplier farmers (the signatories of the SEKEM supply contract), nor on the other farmers working in the same supplier entity, or on the composition of their respective households.

To collect data from people representing these two categories the team needed to establish contacts with relatives of the supplier-farmers and with members of the communities these farmers belong to. The EBDA staff and agronomist have been helpful in bringing about such contacts, often at short notice and in uncharted territory, as this was not part of their routine farm visits.

#### Women's perspectives

Establishing contact and convoking women related to farmers from the supply entities to discuss their experiences and opinions on the effects of their involvement with SEKEM's activities was new to the SEKEM/EBDA agronomists. Nevertheless, a number of interviews and some focus group discussions were held with farmer women. Female family members were not directly involved in the crop production activities (nor were such activities apparently discussed in their homes) – and they mentioned no impacts on their lives, despite close questioning.

From all the attempts to discuss the effect of earning income through a supply contract with SEKEM, it was concluded that, overall, the women (whose spouses or other male family members were producing the crops) have few insights into the SEKEM link<sup>46</sup>.

<sup>43</sup> If SEKEM had implemented activities aimed at specific improvements in health, this might have been feasible.

<sup>44</sup> Improved access to higher education is not limited to SEKEM suppliers – for most, even discounted fees for private university education are a significant expense relative to the much lower fees for public universities.

<sup>45</sup> Heliopolis University has six students with discounted fees – three children of supplier farmers and three related to SEKEM employees (pers. comm., Chief Sustainable Development Officer, SEKEM).

<sup>46</sup> With the exception of one woman, a former teacher, who was well informed about the crops produced at the SEKEM supply entity of 250 feddan headed by her husband. She had set up her own organic export company.

Crops grown for SEKEM (e.g. herbs, medicinal plants and cotton) are hardly consumed in the farmer households. Yet usually all crops on the entire farm area are grown organically, including the food crops, and some women mentioned that the food they prepared was now healthier. Others commented that their husbands were working long hours.

Although it is more common for men to do agricultural work, given the increased demand for labour under organic production, there are certainly some additional labouring opportunities for women as well as men. Particularly at harvest time and post-harvest, women may provide assistance by drying herbs and medicinal plants which are sold to SEKEM as a dried product.

As discussed earlier, because of the higher labour demand of organic agriculture, at the margin, fewer people are forced to migrate in search of employment, which has positive outcomes for some workers' families. It enables more families to stay together, rather than live apart with just a few periodic visits home<sup>47</sup>. Apart from the case of Kafr El-Sheikh where SEKEM was actively involved in additional activities (for women) other than crop production, it was very hard to identify any particular gender impacts.

#### Kafr El-Sheikh

As signalled above, in Kafr El-Sheikh the situation was different: there, SEKEM contributed to the implementation of a development project over 20 months, with co-funding from an oil and gas company active in that region. SEKEM staff were actively involved in a series of social services among which the set-up, training, logistics, and operation of a sewing atelier. The atelier offers women the opportunity to produce garments as a means to generate income. Although the project has been terminated, the atelier still functions, and while four women had bought their own sewing machines and left the atelier and started their own production unit, new women are joining. Even the training is being continued, sustained by the atelier's revenues. How sustainable this will be remains to be seen, although the women concerned expressed great satisfaction with this initiative and also mentioned the set-up of a nursery, the organization of computer training and literacy classes. The literacy classes they had only heard of, but with the services of the nursery and the computer training they had their own experiences through their children who had benefitted from these services.

#### Young people's perspectives

Young people's perspectives were explored through interviews and the focus group during field visits. Young people involved in the SEKEM crop supply were in favour of organic agriculture and the arrangements with SEKEM (guaranteed sales and prices). In a meeting with young farmers practising substantial organic agriculture of their own volition and not supplying to SEKEM, they commented that: *"We should get our land certified and try to sell our crops for an [organic] premium – and in case we don't succeed, it won't have cost us too much either"*<sup>48</sup>.

#### Box 3.4 The strategic importance of young people for the sustainability of agriculture

If young people are left out, efforts to promote sustainable development in general, or in agriculture in particular, have little perspective. Young people merit special attention, exactly because the long-term perspectives of all efforts in this respect hinge on the level of success of making agriculture interesting to future generations. As in many other countries, agriculture has low status in Egypt. Nevertheless, (albeit at a very slow pace) there is growing recognition among the intelligentsia that given its strategic importance, the attractiveness and status of agriculture urgently needs to be enhanced (yet established interest groups are not taking a supportive stand in this respect).

<sup>47</sup> Such work arrangements are very common, and the extended family often plays a key role in hosting women and children during the man's absence.

<sup>48</sup> The certification cost is just LE 50/feddan per year, and because their production is already organic anyway, they do not have to change their practices.

Some farmers in the delta complained that it was difficult to attract labour in agriculture. Even wealthy farmers said that their children (now in their 20s) are not interested in farming, though they may eventually take on the family farm and employ a farm manager.

In a meeting in Fayoum with young people (relatives of SEKEM supplier farmers –mainly university students, with one studying at Heliopolis University) they remarked that organic agriculture increased the local work opportunities. Apart from the HU student, the young people were not aware of any discount on HU fees for children of SEKEM supplier farmers and they suggested circulating this information more widely. Nonetheless, they felt that in general the SEKEM activities had a positive effect on people's living standards and education levels.

#### Box 3.5 Bahariya Oasis an exception to the rule?

Perhaps exceptionally, in Bahariya Oasis (where SEKEM has one of its farms and a small number of long-established suppliers of dates and liquorice) there is a perceptible renaissance in agriculture. This seems to stem in part from the example set by large companies who have purchased land and developed large plantations over the last 10 years. This includes SEKEM, some other household names in Egypt (such as Juhayna) and some international companies.

This area has already had to absorb large numbers of migrant labour returning from Libya, as well as underemployed local workers in the tourist sector– many of whom are young and have had little choice other than to turn their attention to small family plots or farms on so-called new land. The oasis now attracts migrant labour from places like Fayoum, which always had a much stronger agricultural sector.

It is important to state that the Bahariya farm is the only SEKEM farm that is not fed by water from the Nile. Instead, water is pumped up via diesel fuelled pumps (and recently one solar-driven pump) from a huge aquifer which covers four countries: Egypt, Sudan, Libya and Chad. For this reason, the area is of great strategic importance to the Arab region, and also for SEKEM.

In the focus group discussion in Fayrouz village, in Kafr El-Sheikh, seven young farmers (one of them was a SEKEM supplier, the other six were not) appreciated the social services SEKEM provides, in particular the literacy training, but they also mentioned other training and skills development services such as awareness seminars in agriculture, health & nutrition, animal production, computer training, water and sanitation, the sewing atelier, the nursery, first aid etc., because it gave them an opportunity to learn about a range of topics which they find relevant for their self-development. They also commented that other organizations which provided social services in the past no longer do so.

The HU students participating in field visits with the CDI team, and the students we interviewed did not show much interest in agriculture, although they were the children of SEKEM suppliers and/or volunteered to participate in field visits. (One student visited her father's farm of 15 years' standing for the first time when the CDI team was there). All students we spoke to were studying commerce (within E&BA), except one who was studying engineering. One student hoped eventually to work with SEKEM, or at HU.

Heliopolis University is planning to start a faculty on agriculture, but in order to attract more students, the faculty will most likely be given another name (because for some people agriculture has negative connotations: low status, uninteresting or not modern). At SEKEM's mother farm in Belbeis, a Vocational Training Centre is in place, but needs to be upgraded. SEKEM and EBDA have some very well-qualified and dynamic young people among their staff whose training, experience or work is directly related to agriculture or crop marketing. They could be seen as very strong role models.

In conclusion, it is hard to generalize about young people’s perspectives on agriculture in Egypt, but there are certainly some sub-groups that have a very positive view of agriculture and its potential.

The farmers frequently indicated their satisfaction with higher income and a more holistic method of farming that they considered healthier because it avoided the use of agro-chemicals. The discussions made clear that there were also employment impacts – and the team sought other possible areas of impact including capacity development, health and education.

### 3.2.4 Level of success in relation to the SEKEM suppliers

#### Impact 1: Income generation

In general, SEKEM’s farmer suppliers speak positively about their relationship with SEKEM. Although they mentioned and clearly valued the perceived health benefits of organic production (for the people working in the fields and for the consumers), their key motivation was income generation, associated with the generally better profit margin of organic/biodynamic agriculture over conventional agriculture. A guaranteed market was also important to many of those interviewed.

#### Production costs as compared to conventional farming

Many suppliers liked the certainty of having a production contract. Although contract arrangements differ per crop, SEKEM pays the farmers 20% more than the market price at the time of sale. Overall, according to most SEKEM suppliers interviewed, the combined effect of the higher sales price, the lower production costs, and the slightly lower yields tends to make biodynamic farming more attractive (though less so than in previous years, many claim)

#### Concern for delay in second payments

The second instalment to the farmers used to be paid just after the produce had been tested for pesticide residues. However, in recent years payments have been significantly delayed. Most smallholders cannot afford to wait one or two months or longer for the second payment. In this respect almost all farmers indicated serious concern – a point raised by many SEKEM/EBDA agronomists too: (“We like SEKEM but we want it to be like it was 10 years ago”... “I’d rather earn less money, but be paid on time.”) Some farmers worried that they might not to be able to remain suppliers if the late payments persisted.

## 4. Establishing a baseline

One of the objectives of the evaluation as expressed in the ToR was establishing a baseline. SEKEM wants to know how many people benefit from its services, cascading through the suppliers, sub-contractors, and others employed on the farms (as well as their families). Currently, SEKEM uses the Crop Walker system as a tool to monitor compliance of its supply base (i.e. those with whom it draws up contracts – a list of roughly 90 suppliers) with the production of the crop volumes according to planning. Other information SEKEM has in Crop Walker and elsewhere concerning the supplier entities and the producers involved is unreliable, for example on the demographic characteristics of farmers and employees (e.g. sex, age, education), basic farm characteristics (land size and ownership, crop diversity), and contribution and share in SEKEM etc. It is scattered, fragmented, not systematically registered in a central database, and thus lacks easy access or is not quickly retrievable, and is thus not suited to be used for building a baseline.

The following sections suggest what information to collect and how this could be done in order to establish a ‘baseline’ of the current situation of farmers supplying (indirectly or directly) SEKEM and their characteristics. This data would not be a baseline of its supply base in strict terms, since SEKEM’s supply base has existed for many years. The information would provide a benchmark to which future situations may be compared. Nevertheless, in the process of this evaluation the partners have been referring to this benchmark as the ‘baseline’ - and so do we in this report.

### 4.1 Data to be recorded

Trying to keep the expected effects and relevant indicators as straightforward, tangible and useful as possible, we suggest monitoring the following information (at least) in addition to technical and productivity data which is registered in the Crop Walker system:

Farmer and farm characteristics		
<b>Supply basis</b>	(1)	Farm owner and employee demographics (age, sex, educational level)
	(2)	Household size
	(3)	Farm location, land size, property/user status
	(4)	The length of period during which supplier entities are contracted by SEKEM
	(5)	Supplier entities per crop type per season
	(6)	Surface area dedicated to biodynamic crops
<b>Employment</b>	(7)	Part-time and full-time labour involved in farm production per season
<b>Farmer inclusion</b>	(8)	Specification of subcontracting arrangements (formal or informal) per season
<b>Farmer revenue</b>	(9)	Gross (SEKEM) revenue received by each of the farm entities per season
	(10)	Collective revenue
	(11)	Gross (SEKEM) revenue recorded by governorate per season

Such data will provide a basic profile of SEKEM supplier farmers which could be compared to the overall profile of farmers in Egypt<sup>49</sup>. The indicators 1, 2, 5 and 7 will show the size of the supplier entities and the labour force of the supply base more accurately than the current method. By keeping records of the supplier farmers chronologically over various growing seasons (summer and winter seasons, for several years in a row; 3, 4 and 5) SEKEM will be able to determine the length of the period during which specific supplier entities are contracted, and the alternations occurring in the SEKEM supplier base.

The indicators 8 and 9 are suggested to provide insights into the distributional impact of SEKEM’s operations (and eventual changes in that respect).

<sup>49</sup> COAE and EBDA data show that SEKEM suppliers have relatively more land than the average Egyptian farmer.

Comparing official statistics on human and economic development in Egypt, the gross SEKEM revenue per governorate (indicators 10 and 11) combined with the other indicators will serve to substantiate SEKEM's contribution to poverty reduction and development in Egypt.

Other features can be tracked, including keeping a record of the extent to which the same farmers or different farmers benefit from the contracts or subcontracts each year, but the above focuses on tangible measures which are relatively easy to monitor (albeit more onerous when first collected) and which can be independently verified. It would also be useful to conduct periodic surveys to gauge employment impacts.

#### 4.1.1 The sustainability flower

SEKEM is interested in adopting a questionnaire addressing the different petals of the Sustainability Flower. The current version of the so-called 'quick assessment' provided to the evaluation team has eight to nine pages of questions relating to economic life, societal life and cultural life which is targeted to the company (in this case SEKEM) rather than to the farmers.

In the view of the CDI team, it would be useful to develop a stronger grasp of basic information on the supply base (see above) before any more elaborate indicators of development are decided upon and tracked. The same applies to SEKEM's suggestion of using the indicators in the UN's Human Development Report. In the absence of more information on the supply base, it is hard to assess whether the UN indicators would be particularly meaningful or useful with the present state of affairs.

It is important to achieve an appropriate balance in tracking information that can be relatively easily obtained (and verified), versus information which is more complex and harder to measure objectively. Drawing robust conclusions on education and health impacts, for example, is very difficult with a small sample size, while there are many other factors at play and considering the relatively long time period over which such impacts, if any, emerge.

SEKEM could also keep better track of its health-related interventions (in terms of facilities, hardware, capacity building and training) and education (numbers of farmer suppliers with family benefitting from reduced fees at Heliopolis University etc.). As a start, this would provide information on input and not yet on effects or impact. Should SEKEM seek to strengthen its interventions in this area, proper monitoring and evaluation could be built into the social or health programme from the outset.

#### 4.1.2 Identifying key mechanisms

The above suggestions on information to be collected will facilitate SEKEM in monitoring the basic developments in or among its supplier entities. However, the data does not reveal much about the reasons or mechanism contributing to these developments. To gain more insight into these mechanisms, SEKEM should carry out evaluations or research which assist in revealing and assessing the factors determining levels of loyalty, investments made by farmers, the uptake of innovative farming techniques and practices, and co-operation, among a representative sample of longer-term suppliers and new ones.

## 4.2 Data collection: how to make it happen

In order to obtain the above information, SEKEM staff should undertake several data collection activities. Given the almost daily presence of the SEKEM/EBDA agronomists at the farm, there is certainly scope to collect such data, if the agronomists are duly instructed.

1. Firstly, as part of contractual agreements, the basic farmer and farm data may easily be collected at the start and extension of contractual agreements;
2. Secondly, by properly linking farm and farmer data with procurement data, SEKEM could provide insights into farm revenue by type of contract, farm and farmers over time and per season;
3. The agronomists can ensure that this data is reliable by checking and updating basic farm and farmer data at regular intervals in time;
4. Simple recording formats for records should be developed;
5. The SEKEM/EBDA agronomists should receive training in properly administering these records;
6. A system of double record keeping may be introduced, by which the farmer and the agronomist keep a copy of the records they are both in charge of. This will enhance data quality.

The data collected should be integrated into a data base which lends itself to systematic data handling and analysis. This could be done in collaboration with the Heliopolis University, and/or EBDA. If need be, backstopping and support from some external body of expertise can be used as well. It would be important to formalize these kinds of arrangements, addressing ethical aspects such as anonymity of farmers, access to information, ownership of information etc.

In order to reduce the amount of data to be periodically collected, SEKEM could select a limited number of entities representing the different types of supplier entities, and follow these entities in more detail.

## 4.3 Building SEKEM'S capacities to conduct evaluation

When the proposal for the present study was developed, SEKEM expressed interest in developing the evaluation capacity of its own staff. It wanted the CDI team, to involve SEKEM staff and staff and students from Heliopolis University (HU) in the implementation of the impact evaluation study. This was a conscious choice made to enhance sustainability. If staff were introduced to the methods applied now, it could replicate them in future years when the baseline identified in this evaluation needed to be tracked. In any case, the team needed to collaborate with the agronomists to identify and arrange farmer meetings.

Most of the fieldwork was indeed conducted with agronomists and SEKEM staff or students present. Based on that experience, the authors have a number of observations:

1. To maximize the level of neutrality and objectivity, evaluations are often conducted by skilled 'outsiders,' based on the assumption that their views are less likely to be influenced by prior interaction with the organization/ individuals. During this study, SEKEM staff and students sometimes found it hard to maintain the neutrality required: they spontaneously intervened with remarks and comments, at times entering into discussion and contradicting statements made by interviewees, thus influencing the content of the information exchange, and the behaviour of the interviewees (this was not uniform – some staff were better at maintaining a neutral position).
2. Some agronomists, understandably wanting to present their own work or SEKEM's work in the best light, sought to influence the participation and remarks made in meetings. This makes the task of soliciting reliable answers to key questions quite difficult. Key informant interviews were also conducted with the agronomists, and in any case there was always a later opportunity for them to respond to key points raised during discussions.

3. In rural areas people often observe strong traditions of patronage and deference, so the location of a meeting (e.g. at SEKEM<sup>50</sup> or at a large supplier's house) or the presence of influential individuals affects participant responses (i.e. it limits any negative observations).
4. People conducting impact evaluations need a framework and skills to collect, to record and to triangulate qualitative and quantitative data, to develop a reliable narrative and to systematize, analyse and process the data. They also need to master a set of interpersonal communication skills, know-how and experience in how to handle group dynamics. Such 'soft' people skills include: respectful, attentive listening; building trust; imaginative ways to continue posing questions that have not been adequately answered; recognizing quickly when more enquiries are needed to tease out information if the responses seem incorrect or contradictory; and being flexible enough to pick up on new points or signals raised by the respondents; to learn and master such skills, learning through experience is crucial. People also need to refrain from jumping to conclusions, be non-judgemental, diplomatic, tactful and respectful, and have great empathic skills.

To develop SEKEM's capacity in this area, it will be necessary to spend sufficient time, attention and resources to develop the professional skills required. In the implementation of such evaluation studies, the people in charge of the study must have ample time and means to do the job. This means that it cannot be squeezed in between other commitments, because this type of work also requires very flexible, rather irregular and sometimes long working hours, including overnight stays, to achieve a sensible balance between travel time and contact time – which is necessary to identify and respect times and venues that are suitable for respondents.

A culture of critical reflection is a key component in conducting such work. Baseline data and other kinds of information can be collected, but it is important to consider by whom and for what purpose that information will be used. Does SEKEM want to use monitoring and evaluation information for learning purposes (how to make improvements), for steering purposes (for better informed decision-making), for accountability purposes (to be transparent to stakeholders), or for profiling purposes (to showcase good results and openness about what can be improved)? Whatever the purpose, SEKEM will also need to think about the form in which it wants to organize evaluation capacity. By creating a specific unit? By a collective effort, loosely coordinated by one or two staff members? Or does SEKEM want to combine external with internal expertise perhaps? It is also important for SEKEM to check to what extent the farmers themselves are interested in this. No information should be collected that is not used in any way afterwards.



<sup>50</sup> The team tried to avoid conducting interviews with farmers at SEKEM's premises.

## 5. Conclusions

In this chapter we present the main conclusions regarding the impact of the SEKEM model on the group of supplier farmers under scrutiny in this evaluation study, its relevance, the effectiveness, and efficiency with which the model is applied, and the sustainability perspectives of this model<sup>51</sup>.

The chapter concludes with a section on the need for and utility of the creation of a baseline and a comprehensive database to monitor impact, developments and trends among the actual and potential supplier entities, and in the agricultural sector at large, which may affect the economic viability of the SEKEM model and the feasibility of accompanying project initiatives aimed at the achievement of sustainable impacts in the social and cultural domains.

### 5.1 Conclusions on impact

#### 5.1.1 Impact on farmers

##### **The field team sought to understand the impact as a result of farmer interaction with SEKEM.**

- Both farmers and agronomists clearly indicate that the main focus of the farmer-SEKEM relationship is biodynamic crop production;
- Farmers themselves frequently indicated satisfaction with higher income and a more holistic method of farming which they found healthier because no agro-chemicals are used;
- Employment impacts were frequently mentioned, and the team also sought other possible areas of impact including capacity development, health and education.

##### **Farmers at the SEKEM supplier entities have increased incomes.**

- The main impact farmer suppliers refer to is increased income. Many farmers report satisfaction at having a guaranteed market and remark that SEKEM always honours its contracts;
- Some large farmers stated that they had been able to purchase more land, and some of them had certified that land and were supplying SEKEM from that larger area – reinforcing the cycle of impact, stemming from improved incomes;
- In spite of the fact that most farmers were unhappy with late payments by SEKEM over the last 4-5 years, they prefer to continue working with SEKEM, hoping the situation would improve;
- The farmers value the personal contact (with the SEKEM founder or its CEO) which seems to have helped build supplier loyalty.

##### **SEKEM contract arrangements are attractive for supplier entities.**

- Comparing organic agriculture for SEKEM to conventional agriculture, the farmers of the SEKEM supplier entities concluded that although yields tend to be lower and labour needs are higher (15%-30%), output prices are higher and overall production costs are lower, and that therefore growing organic crops for SEKEM tends to be more profitable than conventional production;
- Participatory budget interviews to construct fully-specified crop budgets with the farmers were conducted, but the farmers were either reticent about sharing or did not recall detailed accurate information on costs and pricing, and there were no farm records available to calculate farm results over a series of consecutive crop cycles.

##### **Employment opportunities increased.**

- The most important development impact, in the opinion of the evaluation team, is increased demand for farm labour. This is especially important in labour-surplus areas, such as Fayoum. It reduces the need to migrate in search of

<sup>51</sup> Note: This evaluation study is based on the data collected from a sample of supplier entities in Fayoum, Beheira, Bahariya, Kafr-el-Sheikh, Kaliubia and Ismaelia to provide insights into the impact of the application of the SEKEM model for supplier-farmers too far away from the SEKEM mother farm in Belbeis to be able to benefit from the latter's social, cultural and service facilities.

work, which affects the labourers, their households, and others in the local communities. At present, unemployment rates are high and increasing as a result of migrant labour returning from other countries.

#### Other development impacts on farmers, such as effects on education and health were scarce.

- When asked about health effects for themselves and their households, the farmers referred to the benefits (to workers and consumers) of their interaction with SEKEM in general, and that in organic agriculture there is no need to handle agro-chemicals, which reduces health hazards and avoids environmental pollution;
- The provision and training in the use of first-aid kits, and construction of toilets and facilities for clean water supply was mentioned. Some farmers also referred to events organized at the Bilbeis farm which they found useful in terms of exchanging experiences and networking;
- Children from three suppliers benefitted from the discounted fees at Heliopolis University, but wider effects on education levels, linked to the farmer supply operations, were not found;
- In Kafr El-Sheikh SEKEM provides a wider range of services to the supplier entities than in the other sample areas (Fayoum, Bahariya, Kaliubia, Ismaelia) and the results achieved there may be indicative of the potential for achieving social impacts if similar interventions are upheld elsewhere for longer time spans;
- Since its foundation SEKEM has conducted many initiatives (aimed at having a social and cultural impact) in the immediate environment of the mother-farm at Bilbeis. However, among the farmer suppliers who were the primary focus of this impact evaluation, the wider social impacts that SEKEM is seeking (particularly in health and education) are not strongly evident. Most supplier entities are situated in governorates where there is no SEKEM farm, and contact farmers in Bahariya and Minia said that there was no contact with the SEKEM farms relating to training or inputs.

The overall conclusion is that SEKEM is implementing activities relating to health and education in some areas, but up to now SEKEM has no overall strategy to systematically address such issues with *the target group for this impact evaluation: the contracted farmers, subcontractors and labourers on supplier entities further away from the Belbeis mother-farm*.

However, the accumulated experience and results of such initiatives in Belbeis and its surroundings, clearly illustrate the positive impact that can be achieved if similar activities in these domains are developed for supply-farmers elsewhere, provided that adequate funding and capacity is in place for the design, start-up and sustained provision of such services.

#### 5.1.2 Limited impacts on women

In line with the ToR for this impact evaluation study, the evaluation team specifically looked into the impact of SEKEM's activities on women and young people, the findings of which are presented in the following section.

- Most farmer women whose relatives (spouses or other male family members) work at SEKEM supplier entities lack insight into the SEKEM link<sup>52</sup> and are at most only indirectly involved in the production activities. Some women commented that their husbands were working long hours, but for the rest, the women who were interviewed mentioned no impacts on their lives, despite close questioning by the evaluators;
- Few of the crops grown for SEKEM (herbs, medicinal plants and cotton) are consumed in the farmer households, but usually at SEKEM supply farms all crops are organically grown, including food crops, and some women stated that the food they now prepared was healthier;
- While it is more common for men to do agricultural work, organic agriculture is labour-intensive, and therefore there are certainly labour opportunities for women as well as men, particularly at harvest time. Moreover, women provide assistance in drying herbs and medicinal plants which are sold to SEKEM as a dried product;

- In Kafr El-Sheikh, SEKEM staff have been providing social services in the context of a development project such as the set-up, training, operation and maintenance of a sewing atelier. Four women had bought their own sewing machines and started their own production unit, yet other women continue to join. Although the project, which lasted 20 months, ended in December 2014, the atelier keeps on functioning. Furthermore, the training has continued, sustained by the revenues of the atelier. The women participating highly appreciated this initiative, and also the nursery that was established, as well as the literacy classes and the computer training.

The overall conclusion is that, except for Kafr El-Sheikh, where SEKEM is engaged in activities other than crop production, it was very hard to identify any particular gender impacts. The model does create some additional labour opportunities for women and if out-migration in search of work is reduced, it tends to have a positive impact on the wider family (reducing periods of separation).

#### 5.1.3 Young people seem interested if SEKEM organizes additional activities

- Young people involved in crop production stated that they were in favour of organic agriculture and the SEKEM contractual arrangements (guaranteed sale and price);
- Some interviewees commented that people are not interested in farming, and prefer to do other work; even wealthy farmers said that their children were not interested in farming;
- However, in Bahariya Oasis interest in agriculture seems to be increasing. This may be due to the example set by large companies which have bought land and developed large plantations over the last 10 years (like SEKEM and some other household names in Egypt, such as Juhayna and some international companies). Other factors that might be contributing to this trend are the recent decline in tourism and the return of migrant labour from Libya, pushing people to look for other opportunities, including farming on family land (or recently acquired land).
- In Fayrouz (Kafr El-Sheikh) the young farmers appreciated the social services that SEKEM provides, in particular literacy training. They also mentioned other training and skills development services provided by SEKEM, which they see as an opportunity to learn about topics relevant for their self-development. They commented that other organizations, that used to provide social services before, no longer do so;
- Young people in the other governorates were clearly much less aware of SEKEM's activities;
- It is hard to generalize about young people's perspectives on agriculture in Egypt, but there are certainly some sub-groups which have a positive view of agriculture and its potential. Data collected for this study suggest that the impacts of SEKEM's farm supplier model on young people are largely neutral – i.e. no strong impacts, positive or negative, were identified by interviewees or people participating in group discussions, except on a few, rare occasions<sup>53</sup>.

<sup>52</sup> With the exception of one woman who was the wife of a SEKEM supplier (with 250 feddan) and a former teacher. She knew a lot about the crops supplied to SEKEM, and she had established her own organic export company.

<sup>53</sup> For example, a student benefiting from reduced fees was enthusiastic about the learning environment and small class sizes at Heliopolis University.

## 5.2 The relevance of the SEKEM model

- For farmers, the most important relevance is the generation of decent earnings, having a trusted buyer and a guaranteed market;
- For the agricultural sector the development of sustainable ways of farming is very relevant, given the limited basis of natural resources (scarcity of good quality soil, adequate water supply, increasing costs of inputs based on fossil fuels, such as gasoline and fertilizers);
- For the national economy, labour-intensive yet profitable income-generating production activities, such as organic agriculture, are very relevant in terms of reducing rural poverty and unemployment;
- By bringing new land into production, the SEKEM model addresses land and water scarcity in Egypt using methods enhancing soil production capacity (particularly composting) and reducing crop water requirements, both vital elements for the entire agricultural sector<sup>54</sup>;
- SEKEM's model of crop production is relevant to all aforementioned domains, as seen by the way it promotes economic growth, tapping into local markets and export markets, paving the way for others to follow.

The model's relevance is reflected by SEKEM's farmer supplier and consumer base, and it has considerable potential to address key strategic issues facing Egypt: the increasing strain on limited traditional farm land, the need for employment opportunities for a large and growing population, the development of new (desert) land including farming methods that require less water (more compost), and its contribution to broader growth through the development of an export market.

## 5.3 The effectiveness of the SEKEM model

- SEKEM has succeeded in developing a large national market for organic produce and promoting its production, via EBDA, among 700 or so farmers many of whom have sustained the switch to organic farming over twenty years or more;
- Moreover, SEKEM supplies export markets by sourcing from its own farms as well as from a cohort of largely long-established contract farmers practising biodynamic agriculture. Thus the model has proven to be effective and successful;
- Through direct interaction with suppliers, SEKEM has been successful in promoting and extending production capacity in organic agriculture;
- Using a very hands-on, closely supervised approach, SEKEM has been successful in safeguarding product quality, which is essential to secure its markets;
- It is highly unlikely that the supplier farmers can continue to farm in this way without SEKEM's support. Almost all farmers are growing their crops biodynamically, rotating their crops over the entire area that is certified by COAE, but not all manage to secure a premium for the crops not sold to SEKEM;
- The impact on the income of the supplier entity affects a wider group, consisting of the farmers who deliver their produce to the supplier entity, and hired farm labour;
- The income earned by all producers involved contributes to local economic development and, at some level, to improved quality of life;
- Development impacts are more significant where SEKEM can reach out to larger numbers of disadvantaged rural households. Poorer people spend more of their income on *local* goods and services, which tends to have stronger local economic multiplier effects;
- There is tension between delivering a greater impact for a few versus more modest benefit for many. Whilst the SEKEM model may be good for direct beneficiaries, and can certainly command niche markets, certification requirements tend to concentrate benefits in a smaller (relatively more advantaged) group, thus excluding others and

limiting their development impact. The development impact of the income will be felt most acutely by those on the lowest incomes<sup>55</sup>.

## 5.4 The efficiency of the SEKEM model

- In the SEKEM model, the agronomists give guidance to the farm management and the production at the supplier entities, providing instruction, support and supervision of the correct application of the production technology required. Only in Kafr El-Sheikh does SEKEM have field staff providing support, guidance and assistance in other intervention domains such as income generation, literacy, hygiene, child care and computer literacy;
- On average SEKEM/EBDA employs 34 agronomists for the assistance and supervision of some 100 supplier entities (in the summer season the number of supply entities is 50-60). The level of technical and managerial assistance does not seem to be reduced over time;
- However, the evaluation team revealed that some farmers manage their farms at arm's length, while others are fully engaged in all farm operations. The way the farmers benefit from their supply contracts with SEKEM, varies according to their professional, social and cultural background, competence, experience and ambitions. Thus, the need for close, hands-on supervision from the SEKEM/EBDA agronomists also varies accordingly;
- Given the high agronomist (:) supplier ratio and the fact that most suppliers have been supplying SEKEM for 10 consecutive years or more, it would seem worthwhile for SEKEM to explore ways to develop the suppliers' competence to comply with the production standards for certification in a more autonomous way (e.g. through capacity building) without jeopardizing the produce quality, so that SEKEM/EBDA can gradually reduce this ratio;
- The agronomists have no specific tasks to develop the farmers' competence to run their farm autonomously in compliance with the practices required by the certification body, but they could be well positioned to collect data on farm/crop performance, the profile of the farmers and their households, or other data relevant to impact.

## 5.5 The sustainability of the SEKEM model

- Although the number of contract farmers seems to be decreasing while the average surface area per supplier entity is increasing, most supplier entities have been under contract for 10 years or more (the various data sources show different numbers);
- From an economic perspective, the model appears to be sustainable as long as SEKEM continues to provide inputs and makes timely payments. The delay in payment of the second batch after the quality inspection indicated that the operation had been under strain (this problem seems to have been resolved in April 2015);
- SEKEM regards close farm-level input as necessary which suggests that in the absence of that input, farmers would struggle to meet the market specifications and to maintain an acceptable profit margin for the crops they produce. In the short run this approach seems justified, but over time an approach differentiated according to the suppliers' social, cultural, educational and professional background, competence and ambitions seems a better guarantee of the sustainability of the model.

<sup>54</sup> Composting has physical limits: the volume of suitable animal manure is limited, and so are the volumes of crop residues and water. Also the capacity to collect, transport, process and distribute the large quantities of compost required are to be taken into account.

<sup>55</sup> Poor people closer to agriculture in rural areas benefit, most obviously. They also benefit when agriculture is intensive in unskilled labour and when land is distributed more equally. When land distribution is not equal, this may reduce impact on the poorest. (Christiaensen, Demery & Kuhl, 2010).

## 5.6 The need for a baseline and periodic monitoring

- The data that SEKEM, EBDA and COAE keep on the supplier entities is essential to secure the volume and quality of the crop produce to be supplied. SEKEM could greatly benefit from a data management system that facilitates data storage, updating and retrieval;
- Hitherto, beyond its arrangements with its supplier entities, registered in the Crop-Walker system<sup>56</sup> SEKEM has not kept records on the net contribution of SEKEM revenues to the productivity of the supplier entities, and involvement in other SEKEM activities;
- It is useful to differentiate between the various types of supplier farmers<sup>57</sup>, because these producers may vary greatly in terms of motivation, ambition and competence to manage organic agricultural production, and consequently in terms of the need for support and supervision from SEKEM/EBDA;
- Based on more detailed knowledge of the farmers' profiles, SEKEM might also be able to identify human resource potential that can be mobilized to engage in social and cultural initiatives beyond the domain of organic production techniques;
- The information SEKEM has on the demographic characteristics of farmers and employees is scattered, fragmented and not systematically recorded in a comprehensive database (e.g. sex, age, level of education, household composition, labour input, farm economics) and not easily accessible or retrievable. A comprehensive database would allow insight into the profile of the people constituting the SEKEM supply base;

## 5.7 Options for growth

SEKEM has growth potential in several ways:

- the supplier entities that grow crops for SEKEM at some 23% of their total acreage certified for organic production, can increase that percentage or acquire additional acreage;
- SEKEM can recruit more and/or larger supplier entities, and/or;
- SEKEM can expand crop production on its own farms.

Considering the options for growth or wider application of the SEKEM model, the criteria SEKEM uses to grant supplier farmers access to its production model to a high degree determine the level of inclusivity or lack thereof because:

- If the area suitable for cropping that the farmers own is too small, their neighbour farmers must be willing to join, because a supplier entity should have a contiguous area that is sufficiently large to comply with the certification requirements (particularly on old land, where most farmers are based, the plots are small);
- Most smallholder farmers cannot comply with the need to own livestock in sufficient numbers to produce manure for composting, because they simply lack the financial means;
- For farmers with no or very scarce financial reserves, payment upon sale is important, and they cannot afford staggered payment;
- Farmers find the transport of the crop to Bilbeis, stipulated in the SEKEM contracts an added burden (traders and some other companies buy crops at the farm gate);
- Most farmers cannot afford to purchase and invest in new land;
- In some areas, environmental pollution which threatens certification.

SEKEM recognizes most of the above and is adapting its approach in order to sustain operations over time. Adaptations planned by SEKEM include consolidation with larger supplier entities and sourcing a larger share of its supply from its own farms and other new (desert) land extending the cultivated area at the edge of old land.

<sup>56</sup> Farm data such as land size, location, ownership, crops, subcontractors, area with crops for SEKEM, certification status.

<sup>57</sup> For example, career farmers managing land holdings as a family business, retired civil servants and teachers, people owning land and agricultural processing plants, people who inherited or purchased land hiring farm managers to exploit their assets, and farmers with a family tradition in farming.

## 6. Recommendations

The study has highlighted a number of points that SEKEM may wish to consider in achieving and understanding the development impacts it has on its farmer supply base. Because SEKEM favours a holistic approach, and the integrated nature of the impacts aimed at, the recommendations presented below cover all or most of the conclusions presented above.

1. **Explicitly recognize the wider group impacted (beyond farmer contractees).** SEKEM reaches a wider group of farmers, labourers and their families but has little information on this group. If SEKEM wants to determine the impact of its activities on this wider group, it needs to collect the necessary baseline information against which such impact can be measured. Only then can SEKEM develop meaningful impact (indicators) and be accountable to this target group for their holistic mission.
2. **Give consideration to alternative approaches to contract farming.** SEKEM could reconsider the role of the agronomists and the nature of its supervision of crop production at farm level by taking into account different approaches to contract farming used elsewhere and building farmer capacity to organize and associate, so that over time the smallholders take on more of the roles previously performed by the company team (extension, farmer recruitment, quality control, crop assembly, compliance with contract requirements). Linked to this, SEKEM could consider how it might use its own (five) farms to support and link with contract farmers in the vicinity (e.g. as a conduit for input supply, training or other services).
3. **Identify relevant interventions in health and education – and for women and young people** if SEKEM wishes to achieve impacts in health and education, and impact a wider group including women and youth. Therefore, SEKEM needs to develop a strategy in this respect, and to identify specific interventions, based on proper understanding of the supply base (including women and young people), and active engagement in activities aimed at issues of prior importance to these groups. Following a thorough situation analysis, including the recognition of opportunities to collaborate with other players in these action domains, SEKEM will also need to identify financing for such broader work among its farmer suppliers.
4. **Actively engage in the development role for SEKEM as a private enterprise.** To achieve a wider social, economic and cultural impact, SEKEM should actively engage in activities in those action domains. However, the funding of such activities should not jeopardize the economic viability of SEKEM's income-generating capacity. To address the issue, SEKEM could (assisted by the SDF) design a strategy to search opportunities to collaborate with other organizations already deploying initiatives in these domains.
5. **Improve communication on SEKEM's activities beyond production.** Based on the feedback from many interviewees that they were unaware or ill-informed as to SEKEM's portfolio of social development activities, SEKEM should consider paying more attention to informing people at the supplier entities and neighbouring communities about these aspects. This may call for structurally intertwining SEKEM's production oriented activities with SDF's social development initiatives.
6. **Understand the supply base and develop a socioeconomic indicator baseline.** Together with SEKEM staff CDI developed a questionnaire<sup>58</sup> to seek more detail on SEKEM's supply base and suggested 'result domains' relevant to the design of a baseline. It is recommended that SEKEM tests this draft questionnaire with three or four supplier entities, and then adapt it as required, before fully implementing the tool. Enhanced information on the farmers and farm workers involved in the SEKEM supply chain, and on their families, is necessary to enable development of a meaningful set of baseline indicators. The SEKEM/EBDA agronomists could be put in charge of collecting and keeping records in this respect as they are best positioned to do so.
7. **Continue to adapt the model, recognizing some of the trade-offs involved.** SEKEM has already recognized the need for adaptation to address the challenges it faces (and indeed, continuous adaptation and innovation is central to its whole approach to social enterprise). As it seeks to consolidate supply with larger growers - and to some extent its own farms and other new land, it is important to recognize that these shifts are likely to mean relatively less focus

<sup>58</sup> See Annex 9

on the areas where its development impacts are arguably at their greatest (i.e. in disadvantaged labour-surplus areas where job opportunities are badly needed).

8. **Consider how best to address SEKEM's monitoring and evaluation needs.** SEKEM should consider how to address its monitoring and evaluation needs, whether through developing the capacity of its own staff or by using external expertise, or (most likely) some combination of the two. In addition to the instruction on the use of a set of tools, such capacity building requires thorough training in soft people skills, practical exercises and flexibility to do field work, plus attempting to create a work culture that encourages such reflection among its staff and partners. Improved monitoring, evaluation and learning would strongly complement the 'model' by helping provide a valuable source of inspiration and input for strategy and operations.

#### Next steps and closing reflections

In undertaking this study, and in drafting the report, an issue that strongly emerges is that although commercial development and social development can go side-by-side, and often do, such objectives may conflict. Achieving both requires an appropriate balance in programming.

At the extreme, too much 'development' focus might use too many resources and threaten the viability of the commercial model on which it depends, whilst purely commercial models can risk being exploitative. Clearly SEKEM is not in the latter camp, but there is room for more reflection on what it wants to achieve developmentally and at what time horizon, to strike a financially, socially and environmentally sustainable balance.

This report brings to light various dilemmas: a) sourcing in the poorest parts of Egypt whilst also meeting environmental production standards (working in more densely populated areas vs. less densely populated areas); b) capacity development of farmers such that they could work more autonomously, with less SEKEM input versus SEKEM's concern that this could jeopardize product quality and ultimately the market on which the model depends; and c) more 'intensive' development impacts for a few versus the incremental impact on many (in some senses the dilemma of fair-trade and other labelling schemes).

The SEKEM team is proud of how it has managed to achieve things that others considered impossible, both at the outset and throughout its existence (and particularly in the last four challenging years). And indeed they have achieved a lot in that respect, but any strategy will involve trade-offs, since it is never possible to achieve everything. If there are tensions between some of SEKEM's objectives, then it can only be hoped that these will be constructive tensions that will help SEKEM, together with its partners, to find adaptive and innovative solutions.

The authors hope that this report will provide food for thought and discussion – for SEKEM, Oikocredit and its partners.

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## Annex 1 CDI project proposal for the SEKEM impact evaluation study

### An evaluation of SEKEM's impact on its farmer suppliers 15 October 2014

#### 1. Understanding the evaluation request

This proposal has been prepared in response to a call for proposals by Oikocredit, a financial cooperative and 'international social investor' registered in the Netherlands. Oikocredit, having invested in its Egyptian partner SEKEM in Egypt since 2010, requested an impact evaluation. SEKEM comprises nine companies selling organic food stuffs, textiles and phytopharmaceuticals with an integrated value chain targeting national and international markets. It works with the Egyptian Biodynamic Association (EBDA) and its farmer members. Soil & More, a Dutch company, assists SEKEM in composting, soil fertility and CO2 reduction activities and has co-developed the sustainability flower that supports SEKEM's biodynamic agriculture business model. Oikocredit, SEKEM and their strategic partners, are seeking:

1. Insights into SEKEM's impact on its 179 farmer supplier entities;
2. A baseline, against which they can track impact over time and identify areas where adjustments are needed to improve sustainability; and
3. Information to improve their accountability to various stakeholders (financial or otherwise).

Soil & More, SEKEM and Oikocredit have a specific interest in a critical review of a questionnaire that is currently used to assess the sustainability of biodynamic agricultural production practices<sup>59</sup>. If possible, they would like such a review included in the evaluation.

#### 1.1 SEKEM's objectives and operations

As a pioneering social enterprise, established in 1978, SEKEM combines activities in five domains:

1. Sustainable farm production
2. Organic agro-processing
3. Phytopharmaceuticals
4. Organic cotton textiles
5. Education

SEKEM is also actively involved in desert reclamation, converting desert land into farmland using biodynamic farming concepts. SEKEM's farming, processing and distribution activities take place at the Bilbeis farm complex (near Cairo), supplemented by the production of approximately 500 outgrowers with long-term supply arrangements, providing some 75% of the total production volume.

#### 1.2 Collaboration among organizations, each with a special interest in the impact evaluation

##### EBDA

The Egyptian Biodynamic Association (EBDA) has been promoting biodynamic agriculture in Egypt since 1994. EBDA provides training and expertise, so that farmers' land may be inspected and certified as organic, in compliance with EU standards, or as biodynamic according to the Demeter Standard. All SEKEM's 179 farm entities (suppliers) are members of EBDA.

##### Oikocredit

Oikocredit provides credit and equity to microfinance institutions and to cooperatives, fair trade organizations and SMEs. It also facilitates and co-finances capacity building to enhance the sustainability of its partner organizations. Oikocredit proposed that this study be carried out partly because of the growing interest in understanding the impacts on its partners' clients, particularly in relation to its production and services portfolio in agriculture in Africa. An evaluation of SEKEM's holistic business model and related impact indicators can contribute to a better understanding of and growing body of evidence on impact assessment in the agricultural sector, both in terms of results and methods.

##### Soil & More International

As a consultancy company for sustainable agricultural production, soil fertility management and compost-making, SMI works closely with SEKEM, particularly in relation to sustainable soil management and land reclamation. Both are members of the International Association of Partnership in Ecology and Trade (IAP), which launched the Sustainability Flower in 2009, as a tool to assess sustainable development in agricultural supply chains. SEKEM was one of the first companies to use it. The intention is to guide ongoing improvements in the agricultural supply chain and help users comply with the relevant certification criteria<sup>60</sup>.

#### 1.3 Different stakeholders, different questions

Based on the information supplied in the terms of reference (ToR) and an informative call with the key partners, we tentatively distinguish between the following stakeholders and potential evaluation interests. These interests will need to be confirmed and complemented and then serve as the foundation for the evaluation questions and focus of the evaluation.

Stakeholders	Interests	Intended users
SEKEM	Impact on farmer suppliers Baseline conditions Satisfaction of its farmer suppliers Satisfaction of its buyers	- SEKEM staff - SEKEM investors - Potential farmer suppliers - Consumers, 'citizens of the world'
Farmer suppliers	Effectiveness EBDA support Effectiveness of SEKEM services	- Farmer suppliers
Oikocredit	Impact of SEKEM on farmer suppliers Quality/pertinence of SEKEM database	- Oikocredit staff - Oikocredit investors
EBDA	Satisfaction with services and membership among SEKEM member farmers	EBDA staff

<sup>59</sup> The questionnaire is based on or tries to operationalize the Sustainability Flower, a model to take account of social, economic, cultural and ecological aspects, as well as the technology used, in agricultural production.

<sup>60</sup> The Soil & More Foundation, founded by SMI as a vehicle for that part of its work that 'supports the common good', is now responsible for the further development of the flower and its application to SEKEM's operations.

## 2. The focus of the evaluation and evaluation criteria

### 2.1 Focus

The terms of reference propose a focus on SEKEM's economic, social, cultural and ecological impact on 179 farmer supplier entities, who are all EBDA members and whose farms are apparently situated in the Nile Delta<sup>61</sup>. The group of EBDA members and SEKEM farmer suppliers constitutes a heterogeneous group, e.g. in terms of the size of the farm entity, commodity and location. The evaluation needs to address this diversity among the farmers and acknowledge the differences between them in terms of their expectations and experiences with SEKEM. The evaluation starts by identifying the specific characteristics of the farmer supplier entities and their relationship to the issues covered by the impact evaluation study.

### 2.2 Evaluation criteria

The terms of reference refer to the following evaluation criteria:

1. Impact of SEKEM's activities (what changes, intended or unintended, have resulted?)
2. Relevance (pertinence to the farmer suppliers and implicitly their concerns and pre-occupations)
3. Sustainability (will changes last?)
4. Efficacy and effectiveness (having the intended effects), and
5. Efficiency (using the available resources to the best effect).

All parties recognize that the potential scope of the evaluation is very broad, with important implications for methodology, timeframe and resources. A consensus on focus (and relative priorities) is therefore very important (addressed here, as well as in the proposed inception phase 4.2).

## 3. Methodology

The terms of reference state that:

1. The evaluation should be based on mixed methods (qualitative/quantitative);
2. The self-assessment questionnaire for the Sustainability Flower must be reviewed and integrated into the evaluation design;
3. Staff from Soil & More and the Heliopolis University are to be involved as much as possible in practical aspects of the impact study, which might imply a need for training in selected areas;
4. The study is to be finalized as soon as possible preferably in 2014, but in any case before 1 March 2015.

Below, first of all, some key considerations in defining the approach are discussed, followed by a work plan that presents (a) the core components of the study, and (b) additional options for consideration by Oikocredit, SEKEM and its partners. The proposal is presented in this way in the attempt to reconcile the multiple objectives and interests of the various partners in the evaluation.

### 3.1 Variables that impinge on the design of the evaluation

SEKEM's goal is to promote improvement at every level in the agricultural supply chain, across nine dimensions of sustainable development (as per the Sustainability Flower model). In order to identify and analyse the relevance,

sustainability, effectiveness, efficiency and impact of SEKEM on the farmer suppliers, some prioritization is needed, so that the number of variables to be studied is manageable.

An important assumption in what follows is that the sustainability of the ecological dimensions is relatively well assured by compliance with EBDA norms and standards, so that the proposed study therefore devotes more focus on the societal, cultural and economic dimensions<sup>62</sup>. This means that instead of reviewing the technical soundness of the crop and animal husbandry practices or the correct application of production and processing technologies, the emphasis will be on how such technologies affect farmer livelihoods. This means for example a focus on mobilization and use of inputs, labour effort, shifts in activity patterns, distribution of tasks, income generation, livelihood expenditure patterns, other aspects of well-being, and social effects.

A number of variables impinge on the study design, each of which is discussed briefly below:

1. Differences and similarities among the SEKEM farmer suppliers (different farmer categories)
2. Establishing a baseline, including options for control groups
3. Evaluation skills required and organizations/individuals involved
4. Review of the Sustainability Flower questionnaire.

#### Core questions

In the explanation of the terms of reference in the Skype discussion, it was said that the impact evaluation should investigate the following questions:

- a. How successful is SEKEM in relation to its suppliers? (This question in turn requires an understanding of which success factors are most important to farmers)
- b. How well does the SEKEM model promote inclusive agribusiness that combines both sustainability and competitiveness?
- c. Does the SEKEM model demonstrate that private business can promote 'development'? That is to say a development role for the private sector, and not just governments or not-for-profits.

The proposed inception phase will provide an opportunity to explore this further, to arrive at a consensus on the core questions for the evaluation.

#### 3.1.1 Differences and similarities among the SEKEM farmer suppliers (farmer categories)

The farmer supplier entities vary considerably in size, the number of people involved, and the status of the production system. Analysis of the nature of the 179 entities can reveal whether sub-groups can be defined sharing a common set of characteristics, sufficiently similar to be treated as homogeneous categories (e.g. age, gender, wealth, status, education, use and/or ownership of specific equipment, type of production system, proximity to market outlet, with/without off-farm income, and so on).

The definition (and validation) of a useful categorization of farmers should be based on available secondary data, and the views of SEKEM and EBDA staff, and validated by preliminary field visits, including key informant interviews.

#### 3.1.2 Establishing a baseline, including options for control groups

Establishment of a baseline is an important objective for the study. CDI understands this to be a way of answering the question "Where are we now?" (since a baseline *sensu stricto* cannot be established at this advanced stage in the SEKEM operation). As far as possible, the baseline will include an assessment of each of the nine dimensions in

<sup>61</sup> This, although it is stated in the ToR (p3), map provided (ToR, Annex K) showing EBDA farmers in the Nile Valley and in the Bahariya Oasis. It is not clear whether those outside the Delta are SEKEM suppliers or not.

<sup>62</sup> SEKEM commented that EBDA membership does not automatically guarantee the ecological dimension e.g. EBDA does not certify farmers. However, according to the data, quite a number of the 179 farmers supplying SEKEM have Demeter status, which suggests that they fully comply with standards set for biological production. How much attention the evaluation study has to pay to the ecological dimension will be discussed during the inception workshop, one of the features being the CO2 footprint of farm production.

the Sustainability Flower model, including economic considerations, which could reasonably be expected to be very important for farmers.

The terms of reference express interest in comparing SEKEM farmers with other farmers. This could be quite difficult<sup>63</sup> but there are a number of ways in which such comparisons can be drawn – particularly if used in combination:

- by interacting with both newcomer SEKEM farmers and well-established SEKEM suppliers
- by interacting with EBDA members<sup>64</sup> - both SEKEM and non-SEKEM suppliers
- by discussing the advantages/disadvantages of SEKEM linkages with existing suppliers, and
- if possible and handled sensitively, through interaction with former SEKEM suppliers.

### 3.1.3 Evaluation skills required and involvement of staff at Heliopolis University and Soil&More

Oikocredit and SEKEM propose that Soil & More and Heliopolis University should be involved in the practical aspects of the study as much as possible. Whilst their familiarity with the context could be very useful and their involvement could help build capacities that are extremely relevant to SEKEM's mission, it could also undermine the perception of a strictly neutral evaluation (whether or not there were any material effects on objectivity in practice).

From the information provided, it is also not clear whether those staff have the appropriate skills-set and experience, particularly in constructing a robust and accurate picture, using qualitative and quantitative data drawn from multiple information sources. To provide sufficient training would delay the start of the fieldwork and would still not substitute for the judgement that comes with experience, borne of a solid track record in conducting such work.

So the approach proposed here is to:

- involve SEKEM and its partners in the design and fine-tuning of the evaluation (through their involvement in the inception phase, which is critical);
- use the Sustainability Flower as a framework, which will entail interaction with Soil & More (and SEKEM Foundation?), to understand their experience in trying to operationalize it;
- explore scope to involve staff (or students?) in a possible telephone assessment (see below);
- maintain regular (and in fact, essential) contact with partners during the course of the study;
- hold a half-day workshop to present and discuss preliminary findings to SEKEM and its partners in Egypt, at the end of the field work, when their feedback will be very important; and
- hold a validation workshop in Egypt, once the first draft of the final report is available – providing another opportunity for important feedback, prior to the finalization of the report.

## 3.2 Optional components

In addition, optional components involving SEKEM and its partners include:

- training of SEKEM, Heliopolis and EBDA staff on monitoring and evaluation (M&E) based on the needs identified during the evaluation and feedback at the validation workshop, to create the necessary capacity to provide follow-up to this impact evaluation study
- an additional workshop (post-study) to explore emerging trends that could affect the content or approach that SEKEM uses, e.g. changes in the availability or governance of water resources, the impact on farmers of changes in subsidies in Egypt, such as fuel subsidies, or new concerns gaining currency in end-markets.

<sup>63</sup> It is likely to be harder to access other farmers and trying to do so could give rise to unwanted attention (and other requirements). This could bias the findings (or even lead to the field work being halted).

<sup>64</sup> These are assumed, by virtue of their relationship with SEKEM and its partners, to be more accessible than a wider group of farmers (organic or otherwise).

## The Sustainability Flower

A major goal of the impact evaluation study is to determine how SEKEM's holistic approach affects the various and mutually dependent dimensions of sustainable development of agriculture (think of the intertwined economic, ecological, social, cultural and spiritual domains). This is also one of the purposes of the use of the Sustainability Flower. It is important that in the initial workshop the evaluation team will get acquainted as much as possible with the Sustainability Flower, the Theory of Change that it represents and experiences acquired thus far, and learn how the Flower's petals have been used as a framework for the evaluation. Thus, the team can use the lessons learned from its application by SEKEM/Soil & More to give form to the detailed approach to the impact evaluation.

After the study has been finalized it is up to Soil & More and SEKEM to discuss the conclusions and recommendations of the study, and find out how these may contribute to the further improvement of the Sustainability Flower.

## 3.3 Approach

The approach (and budget) proposed here distinguishes between 'core' components of the study and other components that can be included (and budgeted), depending on the feedback received.

Three stages are outlined:

- the inception phase, before the main data collection in the field
- the fieldwork (data collection) and a preliminary workshop to present initial findings
- data processing and analysis and the formulation of findings, conclusions and recommendations, concluded by a validation workshop, before finalizing the evaluation report.

### 3.3.1 Inception phase

The inception phase comprises a briefing (preferably in Egypt), a workshop with the main stakeholders and a field visit.

- The briefing by Oikocredit is intended as an opportunity for further review and discussion of the study proposal and its 'fit' with the terms of reference. It is also an opportunity to collect secondary data.
- The evaluation team suggests an introductory meeting with SEKEM, to get acquainted with each other, introducing the teams to one another, and jointly review the ToR and proposed approach, fine-tune the agenda for the workshop and preview the options for the field visit.
- This would be followed by a one and a half day workshop with the main stakeholders (SEKEM, selected SEKEM farmer suppliers, EBDA, Soil & More and others that SEKEM may identify as parties of strategic importance). The goal of the workshop is to reach a solid understanding of SEKEM's mission, vision and programme, the institutional setting in which SEKEM is operating, the nature of the linkage and the dynamics of interaction SEKEM has with other actors in the value chains concerned, and the points of view and positions taken by the other actors with respect to SEKEM's activities.
- The field visit (1.5 days) is meant as an opportunity for the evaluation team to familiarize themselves with the conditions in the field and to meet some of the SEKEM farmer suppliers on their farms.

The information generated and collected during the inception phase will inform the final design of the instruments to be used for the collection of the primary data. Should the information collected at this stage signal the need for any significant departure from what was previously agreed, this will be discussed with Oikocredit and SEKEM. At the end of the inception phase, a brief and practical report will summarize the key findings.

### 3.3.2 Data collection phase

Three main methods are proposed, with the potential for a fourth, if this appears necessary or useful.

### 1. Key informant interviews

Initial in-depth key informant interviews (at least two) will give form to the set-up and schedule of subsequent focus group interviews. Additional key informant interviews will be reported separately and complement the information collected through Focus Group discussions.

### 2. Focus group interviews

A key tool for data collection will be the use of Focus Group interviews with SEKEM farmers and non-SEKEM farmers. Provisionally, a geographical plan is proposed, but this requires more discussion. Other factors may be more important than geography<sup>65</sup> or if geography is important, which are the most useful/relevant geographic descriptors for this exercise? (e.g. Lower, Middle and Upper Egypt, or Delta, Nile Valley and Oases, noting also the query at 3.2 above concerning the location of SEKEM suppliers)<sup>66</sup>.

Irrespective of any geographic or other stratification, interviews will be conducted with three reference groups: a group of SEKEM farmer suppliers, a group of non-SEKEM farmers (all EBDA members) and young people. Provisionally, and subject to more discussion and perhaps initial testing, it may be possible to divide these groups into male and female groups. Thus, if three geographic zones are identified with SEKEM farmers, non-SEKEM farmers and young people, as well as male and female groups, 18 focus group discussions would be conducted, each with eight participants (see indicative table below).

	SEKEM		non-SEKEM		Youth in	
	Males 8	Females 8	Males 8	Females 8	Males 8	Females 8
Lower Egypt	Males 8	Females 8	Males 8	Females 8	Males 8	Females 8
Middle Egypt	Males 8	Females 8	Males 8	Females 8	Males 8	Females 8
Upper Egypt	Males 8	Females 8	Males 8	Females 8	Males 8	Females 8

#### Young people

The youth groups are included to gain an understanding of their farm intentions, the attractiveness of farming etc. (though the team recognizes that it may be difficult to access this group, particularly if (as is likely) they are not EBDA members and there is therefore no obvious entry point). By including non-SEKEM members, the intention is to be able to contrast perceived changes over time (among males and females) among those who may have profited from SEKEM and those who may have not.

Although it is not yet clear how to convoke groups of young people from rural areas, in the first instance we are thinking of sons and daughters of SEKEM/EBDA farmers, young people attending courses at Heliopolis University, and young people in the communities in general.

In the interaction with them in the focus group interviews the evaluation team will look at the core concerns of the impact study (supported by a check list) and in addition, this will enable the collection of basic demographic information (using a short questionnaire). A team of three national facilitators is planned (possibly using Heliopolis University staff with appropriate experience), supported by a focus group co-ordinator (national).

### 3. Participatory budget interviews

To supplement and deepen the value of the information collected in the focus groups, participatory budget interviews with two interviewees per adult farmer focus group are proposed<sup>67</sup> (see e.g. section 10. <http://pubs.iiied.org/pdfs/G01801.pdf>). These will provide insight into the actual net farm income. This is the 'hardest' measure of differences between SEKEM and non-SEKEM farmers in this evaluation.

Whilst it should be possible to test differences between these groups, it may not be possible to generalize these findings to the whole EBDA farmer population. Depending on the way in which farmers are stratified, farmer participatory budgets will be generated for 12 – 24 farmers (three areas, SEKEM and non-SEKEM, male and possibly female farmer focus groups, two farmers per group).

### 4. Telephone interviews (an option)

It may be useful to collect certain types of straightforward information from farmer suppliers by short telephone interviews. This approach would need more discussion and, if used, some careful initial testing. The advantage is that it may potentially offer a low-cost way to collect data on a larger group of growers.

Based on the impressions and emerging patterns of the information collected among key informants, farmers within and outside SEKEM, and within different climatological and soil type areas and/or central and peripheral areas, a structured interview/questionnaire can be developed to test differences between new and old SEKEM members (those who have received services from SEKEM for some time and those who have not). One possible option may be to train Heliopolis University students in conducting these interviews by telephone, using tablet computers (open data kit) to capture the responses immediately as they talk. CDI will conduct the analysis.

Telephone interviews can potentially contribute to an investigation of differences between long-term, (mid-term) and short-term or new SEKEM members in their reported farm conditions, perceived advantages from supplying SEKEM and how they perceive their SEKEM membership more generally. This will give an idea about what and how SEKEM contributes to their livelihoods. It may also contribute to the development of a baseline on new SEKEM members.

The field data collection phase will conclude with a half-day debriefing presentation and discussion of initial findings with SEKEM and key partners.

#### 3.3.3 Data processing analysis and reporting phase

Data collected via the focus group interviews, participatory budget, key informant interviews and telephone survey will need to be processed so that it can be shared with the client (data files) and analysed by the data analyst and evaluators.

#### 3.3.4 Validation phase

After preparation of a draft report, this will be discussed with key stakeholders in a validation workshop. This will provide an opportunity to review and check key findings. Another main reason for having this workshop is to identify recommendations or actions that the stakeholders want to undertake and which they feel they can do something about.

<sup>65</sup> E.g. type of commodity produced, group size or production volume per supplier entity.

<sup>66</sup> There may also be time and logistical considerations to take into account.

<sup>67</sup> This would require discussion during the inception phase to identify, e.g., which crops or technologies they should focus on – or whether that should be defined by the process itself (e.g. through discussion of issues with focus groups).

### 3.4 Optional components

Optional components are proposed above (see section on Evaluation Skills and the Involvement of Heliopolis University staff / students), in summary:

- Telephone interviews
- M&E training based on the needs identified during the course of the study
- A workshop to identify future challenges and strategies to address them

Numbers 2 and 4, additional work on the Sustainability Flower and a workshop to identify future challenges and strategies may be combined into one activity component. Therefore the following options will be presented:

1. Only focus group interviews, participatory budgets and key informant interviews
2. Option 1 plus telephonic surveys
3. Option 2 plus Workshop plus M&E training

## 4. Work Plan

The work plan describes the activities to be conducted in the subsequent phases (see work schedule below). To be in sync and delivered in a timely manner to feed into the annual general meeting, a progress report is scheduled for 31 October. Because SEKEM (and Oikocredit) intends to participate in the BioFach meeting planned for 11-14 February 2015, we plan a preliminary draft of the report to be submitted to Oikocredit by 21 January at the latest. Then Oikocredit can give feedback on this draft, and use the information presented in the draft report for the poster presentation planned during the Biofach meeting.

After the evaluation team has incorporated the feedback received from Oikocredit, the final version of the report can be submitted by 8 March at the latest and be discussed at a moment that is most convenient to the staff involved (yet to be determined). So the deadline for the final version (31 March) can be complied with, irrespective of the option that is chosen.

	Nov	Dec	Jan	Feb	Mar	Apr
Inception	■					
Field work		■				
Progress report			■			
Analysis & reporting			■	■		
Draft report				■	■	
Validation					■	
Final report					■	
M&E training						■

In planning the dates of the fieldwork the Eid Al Adha festival in early October needs to be taken into account. Combined with at least one other public holiday in Egypt at this time, there could be a week of public holidays (or people taking leave) starting from around 3 October. The time plan outline here assumes no unforeseen disruption in Egypt affecting the schedule. The timelines according to the different options are presented below. The timelines provide for some contingency towards the end as the options become more comprehensive.

## 5 Deliverables – reports

The following types of reporting will be produced:

- Inception report, including a briefing report
- Short, bi-weekly progress reports
- Progress report (end-October, to coincide with the Oikocredit annual staff meeting)
- Debriefing report
- Draft evaluation report
- Final evaluation report, fully addressing the terms of reference and in accordance with the DAC evaluation guidelines.

All reporting will be done electronically in Word format and in UK English.

## 6. Team

The evaluation team will be composed as follows:

Name	Role	Tasks
Ruud Ludemann	Team leader	Overall coordination, methodology, data analysis, report writing
Ann Gordon	Senior evaluator	Instrument design, data collection, analysis report writing
Sherine Saber	Coordinator fieldwork and facilitator focus groups	Coordinator fieldwork and focus group interviews, validation
Marlene Roefs	Senior data analyst	Instrument design; data-analysis, report writing
Anja Wolsky	Junior data analyst	Data-analysis, report writing

### Availability

All the team members indicated above are available in the periods specified in the proposal. Other expertise in Egypt – other national team members (facilitators/enumerators) have been identified but not specified here, subject to more discussion of the extent to which e.g., Heliopolis University staff (or students) can be involved.

From SEKEM (and EBDA) we expect support in the following:

- Providing relevant documentation, information
- Facilitate contacts
- Taking care of arranging venues and transport facilities
- Taking care of arranging board and lodging
- Contacting and inviting stakeholders
- Arranging field visits, including transport and accommodation

From Oikocredit, we expect timely feedback on delivered reports.

## 7. Preconditions and risks

No specific pre-conditions apply to this proposal, other than the usual ones like the occurrence of natural disasters, infrastructural breakdowns or outbreaks of social, economic or political upheavals seriously affecting the conditions in which the activities are to take place.

As for the formal administrative and legal obligations to be adhered to in Egypt, we rely in good faith on guidance to be provided by SEKEM and Oikocredit in this respect.

As for the risks perceived we would like to mention that it might be difficult to find sufficient numbers of women farmers and/or young farmers to be interviewed in the study. Also finding adequate numbers of non-SEKEM and/or non-EBDA farmers can require more effort than we now suppose it will take.

The feasibility and the reliability of data collected in telephone interviews is an issue of concern, which we expect to be able to tackle effectively with the assistance of our Egyptian counterparts.

## 8. Options

Herewith we present three options according to the options presented above. NOTE: **SEKEM caters for all cost items highlighted in the detailed budget as presented in annex B.** The costs of these items are to be paid for by SEKEM on a real cost base.

Phase	Option 1	Option 2	Option 3
<b>1. Pre-mission</b>			
Activities	Inception; Instrument development	Inception; Instrument development	Inception; Instrument development
Deliverables	Inception report; Data collection instruments	Inception report; Data collection instruments	Inception report; Data collection instruments
Duration	2 weeks	2 weeks	2 weeks
Period	October	October	October
<b>2. Evaluation mission</b>			
Activities	Focus group interviews; Participatory budgets; Key informant interviews	Focus group interviews; Participatory budgets; Key informant interviews;	Focus group interviews; Participatory budgets; Key informant interviews; Telephone interviews
Deliverables	Data collected & field report	Data collected & field report	Data collected & field report
Duration	3 weeks	3 weeks	6 weeks
Period	November/December	November/December October/December	November/December October/December
<b>3. Post-mission</b>			
Activities	Data analysis & report writing	Data analysis & report writing	Data analysis & report writing
Deliverables	Draft evaluation report	Draft evaluation report	Draft evaluation report
Duration	2 weeks	3 weeks	3 weeks
Period	November/December	January 2015	January 2015

<b>4. Follow-up</b>			
Activities	Validation evaluation Findings & recommendations	Validation evaluation Findings & recommendations	Validation evaluation Findings & recommendations
Deliverables	Validation workshop; Final report	Validation workshop; Final report	Validation workshop; Final report
Duration	1 week	1 week	1 week
Period	December 2014	February 2015	April 2015
<b>5. Training</b>			
Activities		Design and implementation M&E training (April)	Design and implementation M&E training (April)
Duration		4 weeks	4 weeks
Period		April 2015	April 2015

Option #3 including the phone interviews is budgeted based on the following assumptions:

- Heliopolis University staff and/or students conducting the interviews can prepare the questionnaire with minimum guidance from the senior data analyst and the field work coordinator.
- They do not need training to conduct the interviews.
- They only need minimum coaching or instruction on how to collect and process the data.
- They can report their findings without support from a CDI data analyst.
- They have their own PC's and software to work with, and do not need the tablets suggested.
- The telephone costs will be paid for from other sources.

## Annex 2 Overview of methods for data collection and field visits schedule

The fieldwork, led by Dr Ann Gordon (AG) and Ms Sherine Saber (SS), comprised farm visits, focus group discussions, key informant interviews and farmer participatory budget analysis. With the exception of Bahariya (Giza), where AG worked with a locally recruited field assistant, the CDI team was accompanied by representatives of SEKEM, EBDA or Heliopolis University (staff or students).

The work was conducted in six governorates, focusing mainly on Beheira, Fayoum, Kafr El-Sheikh and Giza. The last four of these governorates account for 60% of active supplier entities and 89% of the potential number of farmers involved in SEKEM supplies (a supplier entity may comprise more than one farmer). The team met with representatives of 20 supplier entities (out of a potential national total of 90 'active' supplier entities – excluding SEKEM's own farms - or 52, if only counting those that had contracts with SEKEM for the 2014 summer season). These included long-established suppliers (going back to the 90s) as well as newly recruited farmers still 'in transition' to full Demeter certification.

Focus group discussions were held with SEKEM suppliers (8), other farmers (5), young people (3) and women (5) – with a total of 104 discussants.

23 key informant interviews were conducted with SEKEM supplier entity contractors, farmers supplying SEKEM via arrangements with the supplier entity contracted, women connected to SEKEM suppliers or other SEKEM activities (mostly family members of SEKEM suppliers and women involved in the activities of the broader development project implemented by SEKEM in Kafr El-Sheikh) and young people. In addition, interviews were conducted with representatives of SEKEM Group (five), EBDA (six, including field agronomists) and Heliopolis University (two staff and five students). Farmer participatory budget analysis was undertaken together with 12 farmers. Twenty-two farm visits were made (including visits to other crop handling facilities, e.g. drying and packaging areas).

A total of five EBDA staff, two SEKEM staff, one Heliopolis University staff member as well as six Heliopolis University students were present on different occasions during the fieldwork<sup>68</sup>.

See the table on the next page for an overview of the field work undertaken.

Table 6.2 Fieldwork conducted for SEKEM Study

	Focus Group Discussions				Key informant interviews					Farm Visits	PBIs
	SEKEM Ss	Other Fs	Women	Youth	Suppliers	Other Fs	Women	Youth	Other		
Ismaelia					1					2	1
Kaliubia					1		2			1	1
Kafr Sheikh	3 (16)	1 (6)	2 (11)	1 (7)	2		3			2	
Fayoum	3 (23)	1 (7)	2 (7)	1 (6)						5	8
Beheira	2 (8)	1 (2)	1 (2)	1 (2)	4	1				5	
Giza		2 (7)			2	3		3		7	2
SEKEM/HU/EBDA staff									13		
HU students									5		

Total number of focus group discussions (discussants): 21 (104)

Total number of key informant interviews: 40

Total number of farm visits: 22

Note:

- SEKEM Ss refers to SEKEM suppliers (contractees and subcontractors).
- Other Fs refers to other farmers (not SEKEM suppliers).
- Farm visits include other crop premises (e.g. for processing or drying).
- Focus group numbers show group and discussant numbers.

<sup>68</sup> These numbers exclude drivers.

## Annex 3 Fieldwork checklists and guides

### Focus group discussions

Although it is important to allow flexibility to explore important issues that emerge in focus group discussions, a checklist was used as a guide to the discussions. Note: not all points on the checklist are relevant to all focus groups (which were held with SEKEM supplier farmers, other farmers, women and young people) or represent all the points covered.

General information was collected at each focus group discussion: numbers present and (for farmers) number of feddan owned, crops grown, number of years working with SEKEM and why they started supplying SEKEM.

Other questions:

### Farming

- How did you become a SEKEM supplier? What attracted you?
- What does SEKEM supply to you?
- Agricultural aids? Money? Social Services? *Please prioritize these services:*
- What do you do with the money you get from SEKEM (if applicable)?
- How do you survive your first two years before your farm is fully certified (if applicable)?
- What is now different in your farm from before, apart from having a different production technique? What things do you do now that you did not do before?
- Are other farmers interested? Are the neighbours interested? Or can they do it?
- How do they react to or comment on your supply relationship with SEKEM?

### Social Impact

- What has changed in the quality of your life/wellbeing?
- What is the impact on family/family members?
- What do you find most attractive about SEKEM interaction/service?

### Other points to explore

- What was the family education level when they joined SEKEM? Is it different now?
- Health and nutrition
- Labour skills
- Communication, networking and contacts
- Natural resources management
- Housing
- Sanitation
- Income-generating activities
- Other dimensions of personal development
- Have you interacted with other organizations that provide rural services?
- If so, in what aspects do you see SEKEM as being different?

### Key informant interviews

Similarly, a checklist approach was applied to guide key informant interviews. Again, this would be adapted to the interviewee but examples of the topics covered include:

- Are biodynamic practices sustained by farmers? – After they leave SEKEM or on non-certified land or other crops?
- What are the wider effects? - Do neighbouring farmers copy the practices? Or do they want to supply SEKEM too?
- Has there been an effect via the introduction of new crops? - Has SEKEM introduced new crops? Have farmers started growing those crops for other outlets? Are other farmers now growing those crops?
- How did you become a SEKEM supplier? What attracted you to it?
- Why do farmers supply SEKEM or why would they like to supply SEKEM?
- Do farmers perceive other benefits from working with SEKEM? (list and explain how this affects their lives).
- Explore possible gender impacts with the interviewee
- Would farmers recommend the link with SEKEM to other farmers? If yes, give practical examples of why.
- What does the SEKEM/EBDA agronomist do exactly? Do farmers value this? What do they value most? How often is the agronomist present?
- What aspects of biodynamic farming or working with SEKEM are the most challenging? Is there anything that is particularly difficult for the farmer to follow?
- Are there factors that make it difficult for other farmers to engage with SEKEM? What are they?
- Apart from your work with the agronomist, what other forms of contact do you have with SEKEM? Is this useful? What do you value about such contact?
- Are there any other points you would like to raise? Even if you speak very positively overall, perhaps there are things you would change if you could?
- What led you to study at Heliopolis University? What are you studying? What do you think about it? What do you want to do when you finish your studies?
- How long have you worked with SEKEM? You seem to like your work? Why? What does it entail?

### Farmer Participatory Budget Interviews

The methodology for these interviews is described at <http://pubs.iied.org/pdfs/G01801.pdf>. In practice, when applied in Egypt, it proved very difficult to obtain reliable information. Farmers were imprecise in the information they gave, and in some cases subsequent analysis revealed that it was inaccurate (e.g. a crop described as very profitable seemed to be grown at a loss). However, it was possible to obtain comparative information for some crops, comparing organic production with conventional production. In some cases (e.g. some of the medicinal plants), the crops are not widely grown so no comparison with conventional production was possible in any event. More information is provided in Chapter 2 of the main report and the findings presented in Annex 4.

## Annex 4 Organic vs conventional production: A comparison

### Farm budget analysis

Originally it was planned to construct fully-specified crop budgets with the farmers, but this turned out to be nearly impossible. The farmers were reticent about sharing detailed information on costs and pricing, and the information we were able to gather was either incomplete or clearly incorrect.

Such budgets would in any case tend to undervalue the integrative nature of organic production, particularly with regard to crop rotation (i.e. production costs need to be analysed over at least one full crop rotation cycle, but preferably over two or three full cycles, including periods when less profitable crops are grown. A lack of farm records made this impossible).

Instead, comparative budget outlines were constructed with groups of farmers for selected crops which were widely grown, enabling different dimensions of organic crop budgets to be compared with conventional crop production budgets. In summary, for the most part, these indicate the following tendencies about organic production for SEKEM relative to 'conventional' production:

- Yields tend to be lower
- Labour needs are higher (15%-30%)
- Output prices are higher
- Production costs are lower (despite higher labour costs)

Variation in the strength of these results is found e.g. if labour costs are higher or subject to strong upward pressure, or with crops largely grown organically anyway (for example in the oases, dates and liquorice are mainly grown without agro-chemicals, although chemical treatments have become more common lately since the emergence of the red palm weevil).

**Table 6.3 Differences (+/-) in production costs of various crops**

	Productivity	Price [EGP/quintal]	Gross rev EGP/feddan	Costs <sup>1</sup> EGP/feddan	Labour
Cotton	-23% <sup>2</sup>	+ 50	4510 <sup>3</sup>	- 1e 5000 <sup>4</sup>	+ 30%
Comment	Farmers find cotton relatively unprofitable, whether organic or conventional, but recognize the benefit (soil preparation) to following crops.				
Fennel					+ 20-25%
Comment	Farmers are enthusiastic and regard organic fennel as a profitable crop but the information provided was incomplete or incorrect.				
Peppermint	-29%	+ 30%	2000	costs are less	+ 15-20%
Comment	Farmers are enthusiastic and regard organic peppermint as a profitable crop, so the cost savings must exceed LE 2000 per feddan, by quite a margin.				
Dates	Date production does not seem to differ very much between organic and conventional production (few chemicals are used in conventional production except in the recent need to treat for the red palm weevil).				

#### Notes:

- <sup>1</sup> Purchased inputs including labour, where applicable.
- <sup>2</sup> Yield of organic cotton roughly 10 quintal/feddan.
- <sup>3</sup> Assuming the normal farmer price for cotton is EGP 1670/quintal.
- <sup>4</sup> A feddan is roughly equivalent to an acre (1.04 acres or 0.42 hectares).

## Annex 5 Number of farmers per supplier entity and assiduity of contract with SEKEM

**Table 6.4 Number of farmers per supplier entity and assiduity of contract with SEKEM**

Code	Name	Location	Operator	Status	Area [Feddan]	Crops	Since	% of SEKEM supplier	Farmers [#]	Farmers [#]
1	K.ABOU KHATWA	Itay e. Baroad	K. Abou Khatwa	Demeter	30	Med. & Veg.	1992	30%	3	
152	TADROS	Kom El-Farag	Zekri Tadros	Demeter	19	Med. & Veg.	1993	20%	4	
163	EL-OROBA	Kom El-Farag	Md. El Naggar	Demeter	38	Med. & Veg.	1994	50%	3	
256	AMIR GAUID	Kom El-Farag	Amir Gaid	Demeter	20	Field crops & Veg.	1997	30%	2	
266	ABOU KHATEEB (Awlad Younis)	Abou-Khateeb	Hassan Hosain	Demeter	38	Field crops & Veg.	1998	20%	4	
308	ABOU-MADAWY	El-Mokhtar	Yasser A. Mdawy	Demeter	128.12	Field crops & Veg.	1998	35%	3	
541	EL-DAWAR	El-Dawar	Ibrahim Saad	Demeter	40	Field crops & Veg.	2003	20%	5	
681	EL-TARH	Abou -El-Matamer	Maher El -Shater	Demeter	20	Field crops	2006	30%	2	
712	ABOU - MADAWY EL-KOBRA	Abou-El-Matamer	Ibrahim Saad	Demeter	25	Field crops	2007	30%	3	
682	HOSIEN YOUNIS	Abou -El-Matamer	Ibrahim Saad	Demeter	31	Field crops & Veg.	2006	20%	3	
683	SHAHRA EL-DIN	Abou -El-Matamer	Tamr Hamed	Demeter	35	Field crops	2002	18%	3	
684	MOBARAK EL- SAYAD	Abou -El-Matamer	Tamr Hamed	Demeter	20	Field crops	2006	20%	2	
685	ABOU-EL-EDA	Abou -El-Matamer	Tamr Hamed	Demeter	42	Field crops	2006	15%	3	
686	EL-HAGER	Abou -El-Matamer	Ibrahim Saad	Demeter	70	Field crops	2006	25%	5	
687	EL-HABONY 1	Abou -El-Matamer	Attia Yossif	Demeter	20	Field crops & Veg.	2006	15%	1	
689	MAAROUF	Abou -El-Matamer	Ibrahim Saad	Demeter	30	Field crops & Veg.	2006	0%	3	
688	MEKLED	Abou -El-Matamer	Ibrahim Saad	Demeter	67	Field crops & Veg.	2006	20%	4	
690	BADR	Abou -El-Matamer	Ibrahim Saad	Demeter	30	Field crops & Veg.	2006	15%	4	
691	EL-MAGHAZY	Abou -El-Matamer	Ibrahim Saad	Demeter	32	Field crops & Veg.	2006	15%	3	
698	EL-ZOHERY	Abou -El-Matamer	Ibrahim Saad	Demeter	45	Field crops & Veg.	2006	15%	3	
708	SYNERGY ORGANIX	Janaklis	Mostafa Selim	Demeter	14.02	Med. plants & Veg.	2005	30%	2	
798	EL-NAGAH	Abou-El-Matamer	Ragab Diab	Demeter	20	Fruit	2007	0%	1	
273	SALAH EL-RAIE	Abou-El-Matamer	Ibrahim Saad	Demeter	24	Field crops & Veg.	1997	30%	1	
518	MAFA ORGANIC FARM	Nubarria	Adel Keratam	Demeter	455	Fruit	1999	No	Company	
554	MAGHRABI 2/1	Nubarria	Adel Keratam	Demeter	232	Fruit	2002	No	Company	

Table 6.4 Number of farmers per supplier entity and assiduity of contract with SEKEM

Code	Name	Location	Operator	Status	Area [Feddan]	Crops	Since	% of SEKEM supplier	Farmers [#]	Farmers [#]
701	MAGHRABI 3/4	Nubaria	Adel Keratam	Demeter	123	Fruit	2003	No	Company	
607	FAHD	Nubaria	Kamal Gabr	Demeter	120	Field crops	2011	No	Company	
										<b>67</b>
<b>Governorate (Modrait El-Tahrer)</b>										
411	AHMED RESLAN	M. El-Tahrir	A. Omar. Reslan	Demeter	14	Fruits	1998	30%	3	
864	BIO-EGYPT	Sadaat City	Reda El-Nahrawy	Demeter	50	Fruits			1	
										<b>4</b>
<b>Governorate (Dekahlia)</b>										
284	OMER EL ALFY	Sherben		Demeter	30	Field crops & Med.	1995	30%	2	
										<b>2</b>
<b>Governorate (Gharbia)</b>										
91	SH. RASHAD	Kafer E. Zayat	Eng.sh. Rashad	Demeter	65.12	Fruit & Field crops	1993	No	1	
361	BORIK	Kafer E. Zayat	Ibrahim Boraik	Demeter	51.12	Fruit	2003	No	1	
604	HUSIEN FAKHRY	Kutur	Husien Fakhry	Demeter	58	Med. plants	2003	No	1	
										<b>3</b>
<b>Governorate (Kafr El-Sheikh)</b>										
858	EL-KHERIGIEN	Kafr El-Sheik	Ibrahim Saad	In trans	120	Field crops	2013	10%	24	
										<b>24</b>
<b>Governorate (Sharkia)</b>										
18	SEKEM	Belbeis	Libra Organic Ltd.	Demeter	150	Fruit & Med. & Veg.	1979		Company	
24	AL-ADLIA	Belbeis	Libra Organic Ltd.	Demeter	120	Med. & Veg. & Fruit	1992	100%	Company	
405	GELFINA	Belbeis	Ahmed Isa	Demeter	25	Field crops/ Veg.	1999	No	10	
486	AL-SAADAT	Belbeis	Abed A. Hameed	Demeter	6	Veg.	2001	70%	3	
523	MEBACO ORGANIC	Inshass	Mohamed Fayz	Demeter	9.06	Med. & Field crops	2002	No	Company	
579	MEDHAT EL-SAHAR	El-Molak	Ibrahim Saad	Demeter	13	Fruit	2005	No	1	
720	SUBHI	Sharkia	Ibrahim Saad	Demeter	20	Fruit	2000	No	1	
716	ABOU-HEGAZY	Sharkia	Ibrahim Saad	Demeter	25	Fruit	2007	40%	1	
500	ABOU-HENDAWY	Sharkia	Ibrahim Saad	Demeter	20	Fruit	2001	0%	1	
										<b>41</b>
<b>Governorate (Ismaelia)</b>										
534	EL-KAMAL	Ismalia desert R.	Ibrahim Saad	Demeter	30	Vegs. & Field crops	2002	80%	2	
567	ABOU-SHALABY	Tall Kabiar	Ibrahim Saad	Demeter	20	Vegetables	2003	30%	3	

Table 6.4 Number of farmers per supplier entity and assiduity of contract with SEKEM

Code	Name	Location	Operator	Status	Area [Feddan]	Crops	Since	% of SEKEM supplier	Farmers [#]	Farmers [#]
593	ABOU-SHALABY 1	Tall Kabiar	Ibrahim Saad	Demeter	12	Fruit & Veggies.	2003	30%	1	
595	EL-HESEN	Wady El-Molak	Ibrahim Saad	Demeter	60	Oranges	2007	No	1	
833	EL-ZAHRAA 1	Ismalia desert R.	Reda Farouk	In trans to Demeter	12.00	Vegetables	2010	30%	1	
										<b>8</b>
<b>Governorate (Sinai)</b>										
751	SEKEM (SINAI)	Sinai	Mohamed	Demeter	300	Fruit & Field crops & Veg.	2006	100%	Company	
										<b>Company</b>
<b>Governorate (Cairo)</b>										
47	HEYKESTIB	Cairo	Ebda	Demeter	15	Medicinal plants	1979	100%	Company	
										<b>Company</b>
<b>Governorate (Kaliubia)</b>										
36	MD.MOSTAFA (A)	K. Ahmer	Eng. Md. Mustafa	Demeter	31	Field crops & Veg.	1991	30%	1	
258	EL AZAB	K. Ahmer	Ahmed Yosif	Demeter	7	Med. & Field crops & Veg.	1995	90%	2	
695	EL-HOSAFA	Kaliubia	Ibrahim Saad	Demeter	14	Field crops	2006	25%	1	
										<b>4</b>
<b>Governorate (Monofia)</b>										
410	M.O. RESLAN	Tella	M.o. Reslan	Demeter	40	Field crops & Veg.	1998	50%	1	
467	SHERIF A. MAKSOUUD	El-Shohada	Sh. Abdel-Maksoud	Demeter	11	Field crops & Med. & Veg.	1998	0%	1	
817	TAWFIK RASLAN	Monofia	Tawfik Reslan	Demeter	15	Veg.	2005	No	1	
										<b>3</b>
<b>Governorate (Giza)</b>										
48	MANDISHA	Wahat Baheria	Mohamed Ismael	Demeter	24.12	Palm tree & Med.	1990	40%	3	
290	HARRA	Wahat Baheria	Mohamed Ismael	Demeter	10.12	Palm tree & Med.	1990	40%	1	
339	EL HEEZ	Wahat Baheria	Mohamed Ismael	Demeter	10	Palm tree & Med.	1995	40%	1	
368	EL GAZAIER	Wahat Baheria	Mohamed Ismael	Demeter	10.12	Palm tree & Med.	2008	40%	1	
458	RAHMA	Wahat Baheria	Emad Ahmed	Demeter	20	Palm tree & Med.	2000	40%	1	
810	ABOU-EIED	Wahat Baheria	Mohamed Ismael	Demeter	10	Palm tree & Med.	2008	40%	1	
521	ABDALAH SAAD 1	El-Safe	Abdalah Saad	Demeter	40	Field crops & Veg.	2002	0%	2	

Table 6.4 Number of farmers per supplier entity and assiduity of contract with SEKEM

Code	Name	Location	Operator	Status	Area [Feddan]	Crops	Since	% of SEKEM supplier	Farmers [#]	Farmers [#]
522	ABDALAH SAAD 2	El-Safe	Abdalah Saad	Demeter	20	Field crops & Veg.	2002	0%	2	
750	SEKEM	Wahat Baheria	Ibrahi Saad	Demeter	328	Herbs & Palms & Field crops	2007	100%	Company	
										<b>12</b>
<b>Governorate (Fayoum)</b>										
193	SOLIMAN DAWOOD	Stssa	Soliman Dawood	Demeter	18	Field crops	1994	30%	1	
205	MASH-HOUR	Tameya	Tawfik Ahmed	Demeter	59	Herbs & Field crops	1994	40%	1	
241	SAKARAN	Sakaran	Mohamed Sayed G.	Demeter	365	Herbs & Field crops	1995	35%	170	
292	EL METWALY	Tameya	Hamed Metwaly	Demeter	20	Herbs, Field crops & Veggies.	1996	25%	1	
311	EL LAHLOBY	Manashy E. Kh.	Baker Mahmoud	Demeter	113	Herbs & Field crops	1996	10%	3	
318	NAGI	Talat	Mohamed Sayed G.	Demeter	20	Herbs & Field crops	1997	35%	10	
385	EL-SAEID	Sakaran	Mohamed Sayed G.	Demeter	15	Herbs & Field crops	1998	20%	20	
488	ERAKY	Talat	Mostafa Eraky	Demeter	59.12	Herbs & Med. plants	2004	30%	15	
457	HABIB	Manashy El Khateeb	Mohamed Ahmed	Demeter	50	Field crops & Herbs	2005	No	5	
585	ETSA	Etsa	Soliman Dawood	Demeter	18	Field crops	1995	20%	1	
613	EL-FEKY	Sediek Yossif	Ibrahi Saad	Demeter	108	Herbs & Med. plants	2006	60%	5	
676	GEATH	El-Fayoum	Ibrahi Saad	Demeter	22.12	Field crops	2005	No	1	
677-2	AHMAD	Abshwey	Ibrahi Saad	Demeter	40	Field crops & Herbs	2006	30%	5	
669	EL-METWALLY 2	El-Fayoum	Ibrahi Saad	Demeter	10	Field crops & Herbs	2006	0%	1	
857	KOM EL-DEKA	El-Fayoum	Ahmed El-Mofty	0-Year	10	Field crops & Herbs	2013	No	1	
										<b>240</b>
<b>Governorate (Beni Suef)</b>										
550	EL-KEMNY	El-Wasta	Ibrahi Saad	Demeter	37	Field crops & Med.	2002	20%	1	
645	SOMOSTA	Somosta	Ibrahi Saad	Demeter	50	Field crops & Med.	2005	30%	1	
646	SOMOSTA 1	Somosta	Ibrahi Saad	Demeter	25	Field crops & Med.	2008	30%	1	
660	SAFT	Bani Suief	Ahmed Rashad	Demeter	25	Field crops & Med.	2006	30%	1	

Table 6.4 Number of farmers per supplier entity and assiduity of contract with SEKEM

Code	Name	Location	Operator	Status	Area [Feddan]	Crops	Since	% of SEKEM supplier	Farmers [#]	Farmers [#]
672	EL-MOSTASHAR	Bani Suief	Ahmed Rashad	Demeter	25	Field crops & Med.	2006	30%	1	
										<b>5</b>
<b>Governorate (El-Minia)</b>										
59	TUNA AL GABAL	Tuna El-Gabal	Md. A. Rahiem	Demeter	37	Field crops & Med.	1997	35%	1	
296	ALI MOSELH	Maghagha	Ali Mohamed M.	Demeter	43	Field crops & Med.	2002	No	8	
297	BAHGAT	Abou Qourkass	Mohamed B. Ahmed	Demeter	25	Field crops	1997	No	1	
299	YOSSEF EL-GALAD	Malawy	Yossef El-Galad	Demeter	43	Field crops & Med.	1996	30%	2	
326	ABDEL NASR	Tuna El-Gabal	A. Nasser Mohsen	Demeter	9	Field crops & Med.	1996	80%	3	
400	TAREK	Tuna El-Gabal	Mahmoud Abdel Nasr	Demeter	5	Field crops	2002	No	1	
438	ABOU-HARAM	Maghagha	Ali Abou-Haram	Demeter	28.12	Field crops & Med.	2000	20%	1	
605	NAIER	Maghagha	Nayer Morees	Demeter	12	Field crops & Med.	2000	No	1	
609	TANTAWAY	Maghagha	Ibrahi Saad	Demeter	20	Field crops & Med.	2010	30%	3	
622	EL-ROUBY	Tuna El-Gabal	Ibrahi Saad	Demeter	21	Field crops & Med.	2002	70%	7	
630	ABDALAH	Bany Mazar	Ibrahi Saad	Demeter	25	Herbs & Field crops	2002	No	7	
631	HASAN	Abou-Korkas	Ibrahi Saad	Demeter	30	Field crops & Med.	2002	20%	1	
633	EL-MAHABA	Minia	Mohamed Omar	Demeter	50	Med. & Fruit	2003	20%	1	
640	EL-GHARABAWY	Maghagha	Ibrahi Saad	Demeter	30	Field crops & Med.	2003	30%	5	
641	OMAR RASHED	Minia	Ibrahi Saad	Demeter	20	Field crops & Med.	2010	25%	1	
722	ABOU-HARAM 1	Maghagha	Ibrahi Saad	Demeter	57.12	Field crops & Med.	2000	20%	1	
752	SEKEM (EL-MANIA)	Minia	Ibrahi Saad	Demeter	316	Field crops & Med.	2008	100%	Company	
801	GENIDY	Maghagha	Ibrahi Saad	In trans.	14	Field crops & Med.	2011	40%	1	
852	ABDEL AZEEM 2	Maghagha	Ibrahi Saad	0-year	45.00	Medicinal Plant	2013	No	1	
										<b>46</b>
<b>Governorate (Asuit)</b>										
61	YOSSEF BEBAWY	Dairout	Yossef Bebawy	Demeter	14	Field crops & Fruit	1996	20%	1	

Table 6.4 Number of farmers per supplier entity and assiduity of contract with SEKEM

Code	Name	Location	Operator	Status	Area [Feddans]	Crops	Since	% of SEKEM supplier	Farmers [#]	Farmers [#]
240	ABO TEEG	Abou Teeg	Mokhtar Gaber O.	Demeter	12.06	Field crops	1995	30%	1	
376	MOKHTAR	Abou Teeg	Mokhtar Gaber	Demeter	62	Field crops & Med.	1998	35%	4	
783	OSMAN	Abou Teeg	Mokhtar Gaber O.	Demeter	15	Field crops & Fruit	1998	35%	1	
200	EL-BARAKA	Tahta	El Baraka Co.	Demeter	270	Field crops & Fruit	1998	No	1	
220	EDFA 1	Edfa	Al-Sayed Bardisi	Demeter	13	Field crops	1998	20%	1	
221	SHANDWEEL	Shandaweel	Ahmed Murtada	Demeter	30	Field crops & Med.	1995	30%	1	
222	GERGA	Gerga	Hamdi A. Mohamed	Demeter	16.12	Field crops	1995	20%	1	
										11
<b>Governorate (Sohag)</b>										
225	EL-MENSHA (2)	Al-Danagla	Sayed Mokhtar	Demeter	10	Field crops	1999	0%	1	
280	EDFA (2)	Edfa	Al-Sayed Bardisi	Demeter	47	Field crops	1998	0%	3	
282	EL SALAM	Tema	Hassin Abdel Rahim	Demeter	25	Field crops	1999	No	1	
268	EL FARDOS	Tema	Mahmoud Elsayid	Demeter	50	Field crops	1999	No	5	
362	EDFA (3)	Edfa	Al-Sayed Bardisi	Demeter	29.12	Field crops	1998	0%	1	
404	EDFA (4)	Edfa	Al-Sayed Bardisi	Demeter	15	Field crops	1998	25%	1	
551	EL-MENSHA (1)	Al-Danagla	Sayed Mokhtar	Demeter	15	Field crops	1997	0%	2	
576	KHAIR BALADNA	Edfa	Ibrahi Saad	Demeter	20	Field crops	1999	No	1	
577	BAGDAD	Edfa	Ibrahi Saad	Demeter	40	Field crops	1999	No	1	
<b>Governorate (Qena)</b>										
580	WADI EL-REMAL ZAHABIAH	Dandrah	Hashem El-Dandrawy	Demeter	20	Field crops	2000	No	1	
										1
<b>Governorate (Aswan)</b>										
64		Radseia/Edfa	Abdel Sabour	Demeter	30.00	Medicinal plant	1997	40%	1	
285	ABDEL SABOUR 2	Radseia/Edfa	Abdel Sabour	Demeter	53.00	Field crops	1998	40%	1	
										2
										489

## Annex 6 Trends in demand for organic products and SEKEM's supply base

During a meeting at SEKEM in November 2014, SEKEM's CEO pointed out that SEKEM's development of a local market for organic production is quite remarkable. Egypt is now the largest market for organic produce outside the US, Europe and Japan, and represents 80% of SEKEM's market (SEKEM CEO, February 2015). Although SEKEM is not the only supplier of locally sourced organic products on the Egyptian market, it probably is the supplier that is best known and certainly the largest. SEKEM is a 'household name' in Egypt (particularly for its herbal and medicinal teas), with significant market penetration for some of its products (e.g. anise tea).

Since the Arab Spring in 2011, the Egyptian economy has been suffering. Despite a 20% to 30% decline in its local market during the period 2011-2013, SEKEM's medium to long-term growth prospects are favourable (growth in population and incomes, as well as an eventual recovery in tourism). In addition, SEKEM's export business mirrors a longer trend that shows that almost all Egyptian commodities are steadily gaining (global) market share<sup>69</sup>.

Whereas a large share of Egypt's agricultural export volumes has been concentrated on low-value crops (sugar cane, rice, cotton), SEKEM stands out for its focus on relatively high-value niche market products (i.e. the production of organic cotton and medicinal herbs, and it is also conducting farmer trials<sup>70</sup> with quinoa for example).

Assuming that SEKEM can maintain its quality, reliability and price competitiveness, adapting its approach to export (and domestic) opportunities, market growth would suggest a positive medium to long-term growth trajectory for the organization and those that share in such gains. An economic multiplier effect can be expected through the example it sets for other Egyptian companies and the reputation it helps create for Egyptian commodities.

### Outreach

Through mainly local sourcing, including the introduction of crops hitherto little known in Egypt, as well as further on-farm processing (e.g. the drying of herbs and packing of dates) or at its factories in Bilbeis, the SEKEM enterprise group reaches out to large numbers of mainly rural people and their families: the farmers with supply contracts, and the farmers contributing to the production of the supplier entities, agricultural labourers, the agronomists giving support to the supplier entities, other people working in extension and certification, and farm input providers (e.g. the companies providing greenhouse plastics<sup>71</sup> and packaging material). This is important since Egypt's economic recovery and growth must partly rest with the agricultural sector, on which large numbers of the rural poor depend.

### The SEKEM base of supplier entities

The number of suppliers has decreased in recent years. According to the SEKEM CEO, this is partly due to the recent decline in the domestic market and also because of environmental pollution (especially of water and air) which has particularly affected places such as Fayoum and Beni Suef (Nile Valley) since the period 2008-2010<sup>72</sup>. The same problems have contributed to cash flow difficulties and consequent late payments to suppliers, which in turn may have added to the decline in supplier numbers.

Nonetheless, the EBDA/COAE lists indicate that SEKEM still has an active supply base of 90 suppliers comprising potentially as many as 412 farmers. In the summer season 2014, SEKEM contracted 52 suppliers. Farmers report that almost all crops grown for SEKEM are more labour-intensive than 'conventional production' (by 15-30%) so the SEKEM

<sup>69</sup> Booz et al., 2007, with specific reference to 2000-2004.

<sup>70</sup> Farmers in Fayoum mentioned these trials.

<sup>71</sup> Demeter certification allows the use of plastic.

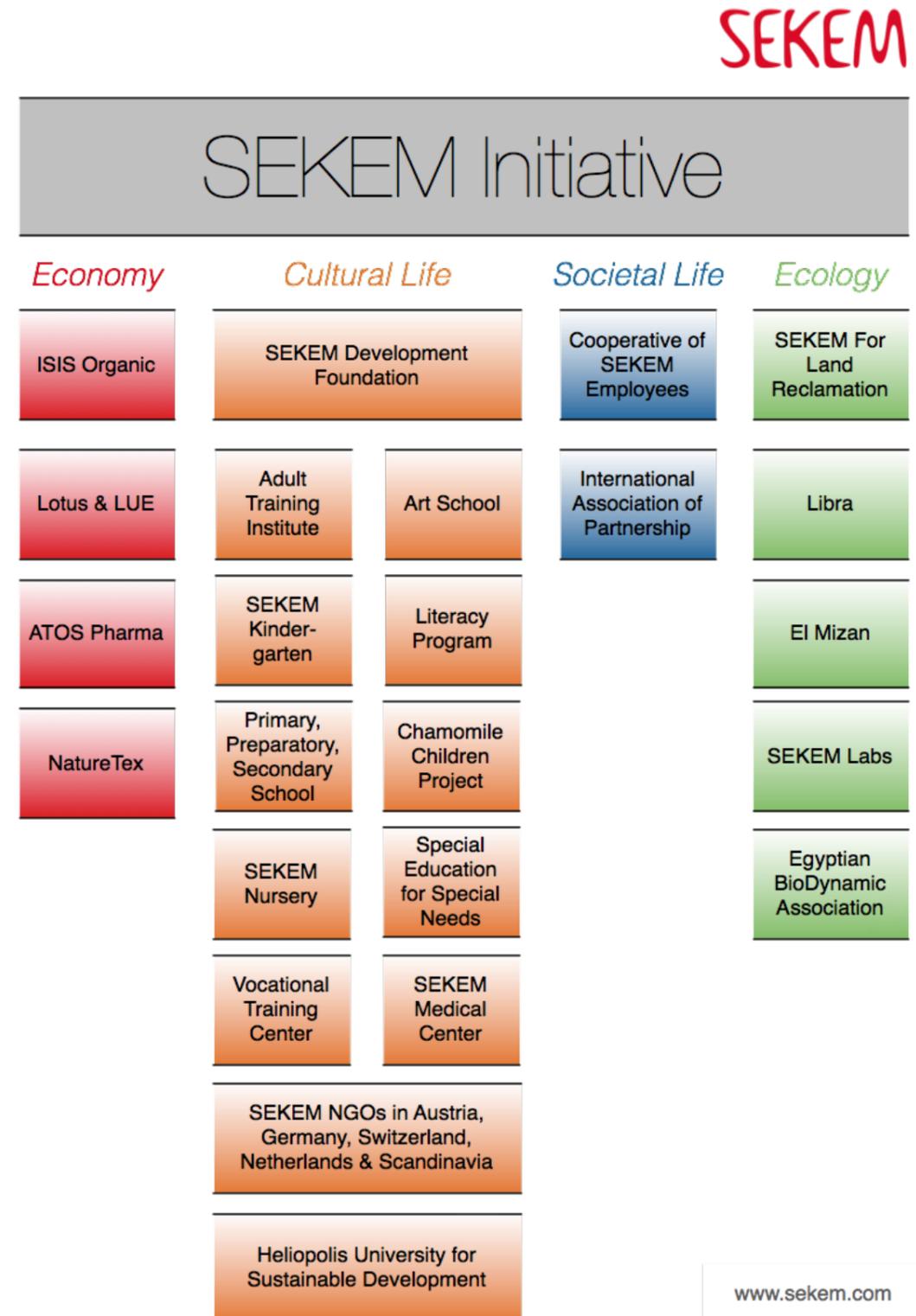
<sup>72</sup> According to SEKEM's CEO, this is a result of improved capacity to detect pollutants on imported products.

operations affect a larger group still, when farm labour is taken into consideration<sup>73</sup>.



<sup>73</sup> Many farmers interviewed do hire labour, and even relatively small farmers in Egypt routinely hire casual labour to help with particularly labour-intensive tasks.

### Annex 7 Structure of the SEKEM network



## Annex 8 Interview guidelines

# present (8-10):

Table 6.5 Names	Table 6.6 Number of feddans (O/A)	Table 6.7 Grows?	Table 6.8 Since when with Sekem?	Table 6.9 Why joined Sekem?

- What does it supply to you? Agricultural aids? Money? Social Services? *Please prioritize these services:*
- What do you do with the money you get from Sekem (if applicable)?
- How do you survive your first two years (if applicable)?
- What is different in your farm from before, apart from having a different production technique?
- What things do you do now, that you did not do before?
- Are other farmers interested? Are the neighbours interested? Or can they do it?
- And how do they react to the fact that you are suppliers and they are not?

### Social impact:

- What has changed in the quality of your life/wellbeing?
- What is the impact on family / family members?
- Would it be OK if Sekem removed the social aspect and provided monetary compensation?
- What do you find the most attractive aspect of Sekem's service?

### What about:

- The family
- Education: What was the education level of the family at the time they joined Sekem?
- Is it different now?
- Health
- Sanitation
- Housing
- Natural resource management
- Spirituality
- Communication, networking & contacts
- Labour skills
- Income generating activities
- Activity pattern!
- Clothing!
- Food!
- Luxury items!

### Personal development:

- What do you feel is missing and needs to be added?
- Have you worked with other organizations that provide social services?
- If yes, in what aspects do you see SEKEM as being different?

## Annex 9.1 The supply contracts

### The onion contract between ISIS (first party) & Mokhtar (second party) code 376, 15 feddans.

The farmer supplier (Al-Mokhtar) commits to delivering the quantities specified under art. 8 of the contract as well as the prices and delivery schedule specified under the same article & according to specifications under art. 9. The farmer supplier also commits to delivering the quantities that should be supplied weekly, complying with the quality norms agreed upon and in line with the monthly planning. In case of failure to deliver the quantity, supplying less than agreed upon and any subsequent losses or damages shall be deducted from the final payments to be made to the farmer supplier.

The contract states that ISIS shall NOT be responsible for the provision of seeds (art. 2).

1. Should the 1<sup>st</sup> party (SEKEM) refuse to receive the quantities agreed upon under art. 8, the 1<sup>st</sup> party shall commit to paying the value thereof to the 2<sup>nd</sup> party (the supplier farmer). Should the 2<sup>nd</sup> party not deliver the quantity agreed upon under the same article, the 2<sup>nd</sup> party shall pay the value thereof to the 1<sup>st</sup> party.
2. Should any contamination be detected in lab analysis in Egypt or Germany, the said quantities shall be returned to the 2<sup>nd</sup> party at the expenses thereof and the 2<sup>nd</sup> party shall incur the costs of the analysis and compensate the 1<sup>st</sup> party for losses resulting from a failure to deliver.
3. The 2<sup>nd</sup> party shall incur all financial expenses linked to the agricultural production process including the seeds, seedlings, supervision, guarding and plant protection measures undertaken thereby all through the validity of the contract from 1/10/2013 – 30/6/2014.
4. The two parties agreed that delivery of the crop shall take place at the farm of the 1<sup>st</sup> party. The 2<sup>nd</sup> party shall incur the expenses of transport and the 1<sup>st</sup> party shall incur the expenses of the packaging. The crop shall be delivered according to the specifications under art.10 and according to the following table:

Crop type	Time of cultivation	Time of delivery	Area	Yield	Quantity to deliver	Price/Ton incl. transport	Notes
Onion	20/10/2013	April 2014	15 feddan	15 T/feddan	As stipulated	1800 EGP	50% allowance

5. Specifications:
  1. Crops shall be totally free of any chemical traces.
  2. Crops shall be free of any microbiological contamination.
  3. According to the standards and specifications of Isis company.
6. The two parties agreed that the 1st party shall pay the amount due to the 2nd party according to the following terms of payment: 50% credit immediately after completion of the delivery and the remaining amount two months later.
7. The 2nd party shall not sell any crop outside the company locally or internationally without written approval of the 1st party.
8. Should any of the two parties breach the terms of the contract, the said party shall compensate the other party for any subsequent losses or harms.

## Annex 9.2 The dates contract – Goda, Belbeis Sharqya

As in the onion contract except for the delivery table and payment conditions.

Type of crop	Time of cultivation	Time of delivery	Area [feddan]	Average yield [T/feddan]	Quantity to be delivered [Tons]	Price/Ton [EGP]	Notes
Siwa dates	Continuous	1/12/2014	10	12	100 tons	8700	Allowance

Terms of payment: 50% after the delivery of 25 tons of Siwa dates & 50% credit (one month).

### The contract for Dates-Fathy, Wahat Bahariya

As previous, except for the delivery table & payment conditions as follows:

Crop type	Time of cultivation	Time of delivery	Area [feddan]	Average yield	Quantity to be delivered [Ton]	Price/Ton [EGP]	Notes
Siwa dates		30/10/2014	20		75 tons	5.75	60% production 40% allowance

Terms of payment: for each 25 tons, 50% cash after delivery & 50% 1 month later.

### There is another (HERBS) contract between LOTUS & farmer (Samy).

#### Differences between contracts are as follows:

Art.2 of this contract states that the 1<sup>st</sup> party (LOTUS) shall provide the seeds required for plantation to the 2<sup>nd</sup> party at the time of cultivation provided that the value of the seeds shall be deducted from the value of delivery.

- Should any contamination be detected in the lab analysis in Germany, the said quantities shall be returned to the 2<sup>nd</sup> party at the expenses thereof and the 2<sup>nd</sup> party shall incur the costs of the analysis. The quantity received shall be sold to pay for the debts of the deliverer within a week from the results of the analysis.
- The 2<sup>nd</sup> party shall plant the area specified above in accordance with the rules of **The European Securities & Markets Authority** and the rules of COAE, and the commitment thereof to all details specified under these rules and bear the consequences of not abiding thereto. COAE has the right to oversee and observe application of the said rules.
- The two parties agreed that crop delivery shall take place at the farm of the 1<sup>st</sup> party. The 2<sup>nd</sup> party shall incur the expenses of transport and those specified under art. 10 and according to the following table:

Type of crop	Time of cultivation	Time of Delivery	Area [feddan]	Average yield	Quantity to be delivered [Ton]	Price/Ton [EGP]	Notes
Mint, Dill, Coriander & Parsley						Market price + 20%	

\*\* The contract ends with article 9 (despite mention of article 10).

## Annex 9.3 The cotton contract between Nature Tex and farmer suppliers

The wording of the article is slightly different, but similar - seed supply not being mentioned.

- (instead of 9 above) – The two parties agree that delivery of the crop shall take place at the halaqa/circle /ring of the 1<sup>st</sup> party. The 2<sup>nd</sup> party shall incur the expenses of transport from the farm to the circle/ring. The 1<sup>st</sup> party shall incur the expenses of sorting and transport from the circle/ring to the scutcher. The crop shall be delivered according to the following specifications:
- The two parties agreed that the 1<sup>st</sup> party shall pay the value of the produce of the aforementioned crop area in line with the specifications elaborated under art. 7 and at a price agreed upon with the representative of the company as guided by the price of Nile ring/circle/halaqa. The amount due shall be paid upon completion of sorting and weighing through the representative of the company no later than 72 hours after delivery. A premium of EGP 50/quintal of flowers shall be paid after completion of required documentation; payment shall be made by the 1<sup>st</sup> party via a separate check.
- The 2<sup>nd</sup> party shall commit to exercising all care required at times of planting the land at the specified times, and to deliver the produce of planting the land mentioned above as per the area and the average production/feddan included in the contract; and not to selling any produce outside the company without prior written approval from the first party.

### Sharing of revenues among farmers supplying to the SEKEM contractee

Based on the explanation of Mr. Mahmoud El-Feky.

- After determining the cropping plan for the season, SEKEM announces its supply demand among the governorates,
- The SEKEM agronomist distributes Sekem supply needs among the farms within the governorate
- The farm contact person, who signs the contract with SEKEM (e.g. in the case of Sakaran Mr. Moh Gab Allah)
- The SEKEM agronomist distributes the required crops among the farmers in the supplier entity according to their capacity and will, while noting the plantation cycle. This implies, that the entire farm land area [362 feddan] is not under crops for Sekem every season, but rather probably a net of 200 feddan (55%), while the rest of the area traditional crops (such as wheat, corn, etc) are planted.

### CONTACT PRICE AGREEMENTS

Mr. El-Feky (supplier entity # 613) confirmed that:

- The farmers know the crop prices very well for every cropping season.
- Usually Sekem pays 20% extra on the market price for the crop.
- The farmer involved in the production takes half of this extra 20%, while
- The contracting lead farmer takes the other half.

He explained that the latter is in return for managing the contract, collecting and delivering the produce to Sekem, while incurring the cost of transport and being accountable to Sekem and paying penalty. However, Mr. El-Feky said that it is very unlikely to incur penalties because there is usually a very good allowance percentage.

## Annex 10 Developing a socioeconomic baseline

With the SEKEM staff, CDI developed a questionnaire<sup>74</sup> to seek more detail on SEKEM's supply base and suggested 'result domains' relevant to the design of a baseline. It is recommended that SEKEM tests this draft questionnaire with 3-4 supplier entities, and then adapt it as required, before fully implementing the tool. Enhanced information on the farmers and farm workers involved in the SEKEM supply chain, and on their families, is necessary to enable development of a meaningful set of baseline indicators. The SEKEM/EBDA agronomists could be put in charge to collect and keep records in this respect as they are best positioned to do so.

### 1. Understanding the supply base.

At present, SEKEM has no consolidated way of tracking the wider group of farmers at the supplier entities (i.e. other farmers and occasional labourers working at these entities, and their households); information on this group and the nature of its involvement is *a sine qua non* for understanding the development impacts (see earlier discussions of baseline information).

### 2. Developing a baseline and tracking indicators of socioeconomic impact.

Concerning the need for a baseline, we emphasize, that to measure the level of inclusiveness:

- a. SEKEM needs to expand its database, collecting data and keeping records of the profile features of all farmers and farm labourers at the supplier entities, and their households.
- b. This database should also contain the key indicators suggested (in section 4.1) and
- c. The existing data should be refined and adjusted to track trends in the supply base, employment, collective revenue, and inclusion of women and young people.
- d. SEKEM should install and maintain user-friendly software for data-handling, to avail itself of an up-to-date, easily accessible and comprehensive database allowing the instantaneous retrieval of the relevant information.
- e. SEKEM needs to reflect further on its strategy and programming, and interventions in this respect should be discussed. Using a logical framework approach would be very helpful to identify the most promising intervention domains and the development of the indicators to serve as a baseline and for subsequent monitoring.

<sup>74</sup> See Annex 9.

## Annex 11 Draft farm questionnaire

Dear Mr/Mrs....., We are conducting a study on farmers that farm in areas where SEKEM is active. SEKEM is... The study focuses on farming activities and production as well as on farmer households. We would like to ask you to participate in this study. The interview will last maximum one hour. Your responses will be treated confidentially and there are no right or wrong answers. It is your opinion that counts. Do you have any more questions? Do you agree to participate? Anything on sharing data/findings?

### Farm details

- 1 Farm address
- 2 Farm location coordinates
- 3 Farm picture Picture
- 4 SEKEM identifier (contract number SEKEM)

### Demographics

- 5 Your first name (all names)
- 6 Your surname (full name)
- 7 Your gender (M or F) Male                      Female
- 8 Your age Years
- 9 Landline or cell phone number
- 10 Business name/farm name
- 11 Municipality/city (location farm)
- 12 Governorate (location farm)

Please provide me with the following information on your household members

**Note to interviewer:** Every person who permanently resides in your household that is connected or not connect by family and who lives together with you in the same place, where s/he also sleeps and eats.

- 13 Number of people living in the household
- 14 Number of children under 18 years old (born before ...)
- 15 Number of dependents

**Note to interviewer:** 'Dependents' refers to household members not earning an income

- 16 What is your highest educational qualification? USE STANDARD CATEGORIES

Never attended school	1
Primary school	2
Secondary school	3
Tertiary school	4

	Other (please, specify)	5
<b>Farm land</b>		
17	Does this farm consist of different farms or is it a standalone farm?	
	It is a standalone farm	1
	The farm entity is composed of different farms	2
18	If it is composed of different farms, how many farms are involved?	
19	What is the tenure status of your farm? <b>Note to the interviewer:</b> You may circle more than one answer option.	
	Lease	1
	Permission to occupy given by business partner	2
	Permission to occupy given by family or friends	3
	Own land (given by family or bought it self)	4
	Other, specify	5
20	What is the total land size of your farm? <b>Note interviewer:</b> 6 carat = 1 feddan; use show card for %	..... feddan ..... carat
21	Do you use all of your land for farming?	
	yes 1 if you do, go to question 23 (Biodynamic crops)	
	no 2	
	If you do not, how big is the area that you actually use for farming? <b>Note to interviewer:</b> Use show card for %	..... feddan ..... carat
	If you do not know, what %?	
22	If you do not use all land for farming, what other purposes is the land used for? <b>Note to the interviewer:</b> Here you may circle more than one answer option.	
	Leasing land out to others	1
	Lies fallow / uncultivated	2
	Other (specify)	3
<b>Biodynamic crops</b>		
<b>Note to interviewer:</b> If the surface area is not known in feddan and carat, use show card for %		
23	How many feddan or carat of the farm area are certified for biodynamic farming (e.g. CAO E)	..... feddan % ..... carat
24	How many feddan or carat of the farm area have been used to supply SEKEM in the recent summer season (April-Aug)	..... feddan .....carat %
25	How many feddan or carat of the farm area are used to supply SEKEM in the current winter season (Sept-March)	..... feddan % .....carat

	Please list the crops that you supplied to SEKEM during this season and/or the last summer season	<b>This season</b>	<b>Last summer season</b>
26			
27			
28			
29			
30			
31			
32			
<b>Labour</b>			
33	Are you a full-time or part-time farmer (during the seasons that you farm)?		
	Full-time (every day)	1	
	Part-time (only a few hours / days in the week)	2	
	Do not work for/on the farm (investor, business (wo)men)	3	
	On average and excluding family members, what is the number of permanent and temporary workers at your farm per year?	<b>Permanent workers</b>	<b>Temporary workers</b>
34	Male		
35	Female		
36	Total		
37	Does your family work at the farm?		
	Yes	1	
	No	2	If they do not, go to question 50
38	What is the role of your family members working at the farm? <b>Note to the interviewer:</b> Here you may circle more than one answer option.		
	General workers		1
	Assist in general management		2
	Assist during the picking/harvesting period		3
	Other, specify		4
	How many family members work on your farm per year?	<b>Full-time (every day)</b>	<b>Part-time, a few hours or days /week</b>
39	Male		
40	Female		
41	Total		

**Planning and markets**

42 Do you monitor or keep track of how much your produce?

Yes	1
To some extent	2
No	3

43 Do you know each month how much to produce for your clients?

Yes	1
To some extent	2
No	3

44 How confident are you that you can sell your produce/ find clients each month?

Confident	1
Somewhat confident	2
Not confident	3

Contracting arrangements

45 Do you have a formal or informal contract for selling your crops, or both?

Formal (signed paper)	1
Informal	2
Both informal and formal contracts	3

What type(s) of contracts do you have regarding selling your crops?

**yes**      **no**

46 Contract per season for each crop      1      2

47 If you have a contract per season per crop, please describe

48 If you have another type of contract, please describe

Length of period supplying to SEKEM

**yes**      **no**      **Do not know**

49 Do you supply to SEKEM?      1      2      3

50 If yes to question 56, do you supply to SEKEM every year?      1      2      3

51 When did you start supplying to SEKEM      ..... (year)

**Revenue****yes**      **no**

52 Is farming your household's main source of income?      1      2

53 Do you contribute most to the total income of the household you are living in?      1      2      If you do not, please answer question 61

**Note to interviewer:** Be aware that other household members may earn an income and contribute to the household expenditure.

54 What is your relationship to the person who contributes most to the household income? Are you

(ex)husband / (ex)wife	1
Brother/sister	2
Father/mother	3
Child	4
Other family relative	5
No family relative	6

55 What was your gross farm income over the past winter season?

**Note to the interviewer:** Gross farm income is income before expenses and tax.

Less than .....	1
Between ..... and ....	2
Between ..... and ....	3
Between ..... and ....	4
More than .....	5

56 How much of your farm income over the past year is related to sales to SEKEM?

None	1
Less than half	2
Around half	3
More than half	4
All	5
Do not know	6

**Skills**

How would you rate your skills in?

**Good**      **Average**      **Weak**      **Do not know**

57 Land preparation      1      2      3      4

58 Irrigation      1      2      3      4

59 Fertilization      1      2      3      4

60 Pest and disease control      1      2      3      4

61 Food safety      1      2      3      4

62 Business planning and financial management      1      2      3      4

63 Farm management      1      2      3      4

64 Harvesting and selling      1      2      3      4

65 Marketing your products      1      2      3      4

**Motivation and satisfaction**66 What is your main reason(s) for farming? **Note to the interviewer:** You may circle more than one answer option.

67 Mainly food for family, but some cash income      1

68	Mainly cash income, but some food for family	2	
69	For income only	3	
70	Other, specify	4	.....

What are your aspirations as a farmer? Please rank the following aspirations in order of importance with 1 being most important and 6 (or 7) being least important.

71	To become a larger scale commercial farmer with employees	.....
72	To make a good living from farming	.....
73	To produce the best quality crops in my district	.....
74	To increase the size of my farming land	.....
75	To sell the crops I produce locally	.....
76	To export the crops I produce	.....
77	Other, specify ...	.....

Overall, how satisfied are you with	Very much	Fairly	Neither satisfied nor dissatisfied	Not satisfied	Very dissatisfied	Do not know
78	Being a farmer?					
79	Your farm's production?					
80	Your farming skills?					
81	General support you get in your farming activities?					

	Very much	Fairly	Neither satisfied nor dissatisfied	Not satisfied	Very dissatisfied	Do not know
82	Availability / affordability of inputs?					
83	Availability / affordability of financial support?					
84	Availability/affordability of farm land					

**Services**

Have you ever heard of the following services offered by SEKEM?	Yes	No	Cannot remember
85	SEKEM baby group nursery		
86	SEKEM kindergarten		
87	SEKEM vocational training		
88	SEKEM primary school		
89	SEKEM secondary school		
90	SEKEM special education for special needs		
91	SEKEM arts education (You are with me)		
92	Heliopolis University		

93	SEKEM community school
94	SEKEM health clinic
95	SEKEM Mohandis / agricultural support

Have you/your household members used the following services?	Yes	No	Cannot remember
96	SEKEM baby group nursery		
97	SEKEM kindergarten		
98	SEKEM vocational training		
99	SEKEM primary school		
100	SEKEM secondary school		
101	SEKEM special education for special needs		
102	SEKEM arts education (You are with me)		
103	Heliopolis University		
104	SEKEM community school		
105	SEKEM health clinic		
106	SEKEM Mohandis / agricultural support		

**Note to interviewer:** Only ask the next question for services used by the farmers or their household members.

How satisfied are you with the services you or your household members have used?	Very much	Fairly	Neither satisfied nor dissatisfied	Not satisfied	Very dissatisfied	Do not know
107	SEKEM baby group nursery					
108	SEKEM kindergarten					
109	SEKEM vocational training					
110	SEKEM primary school					
111	SEKEM secondary school					
112	SEKEM special education for special needs					
113	SEKEM arts education (You are with me)					
114	Heliopolis University					
115	SEKEM community school					
116	SEKEM health clinic					
117	SEKEM Mohandis /agricultural support					

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#### CDI

The Centre for Development Innovation works on processes of innovation and change in the areas of food and nutrition security, adaptive agriculture, sustainable markets, ecosystem governance, and conflict, disaster and reconstruction. It is an interdisciplinary and internationally focused unit of Wageningen UR within the Social Sciences Group. Our work fosters collaboration between citizens, governments, businesses, NGOs, and the scientific community. Our worldwide network of partners and clients links with us to help facilitate innovation, create capacities for change and broker knowledge.

#### SEKEM

The SEKEM-Group of companies is a part of the SEKEM Initiative founded in 1977 by Dr. Ibrahim Abouleish to strengthen sustainable development in Egypt by producing, processing, and marketing organic and bio-dynamic foodstuffs, textiles, and phyto-pharmaceuticals in Egypt, the Arab World, and on international markets. SEKEM has been widely praised as an "Egyptian organic pioneer" and has received the 2003 Right Livelihood Award ("Alternative Nobel Prize") as a "Business Model for the 21st Century" and an "economy of love". With part of their profits the SEKEM companies co-finance the social and cultural activities of the SEKEM Development Foundation that runs, among others, several schools, a medical centre, an academy of applied sciences, and other institutions in Egypt.



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