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THE AGRICULTURAL INNOVATION PROJECT (AIP)

INDUSTRIAL REQUIREMENT SCAN AND THE PROMOTION OF SUSTAINABLE AND INCLUSIVE SUPPLY CHAINS



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Introduction

Background

The Egyptian-German Agricultural Innovation Project (AIP) is a bilateral technical cooperation programme run by Gesellschaft für Internationale Zusammenarbeit (GIZ) with the primary goal of increasing the income of Upper Egypt's smallholder farmers through agricultural innovation. In line with this, the project will use a market-oriented approach to support high-value value chains. Farmers, farmer organisations (FOs), and micro-enterprises are thus aided with organisational support and technological innovation to help them consolidate their marketing abilities, diversify their sales channels, and explore opportunities in growing domestic and export markets.

AIP chose several value chains in the horticulture sector to be the project's focus, including Medical and Aromatic Plants (MAPs), Onion and Garlic, and Pepper (chili and green peppers).

The project supports the selected VCs by (i) enhancing market access of smallholder farmers; (ii) strengthening institutional support, and (iii) introducing innovation to improve productivity and sustainability.

AIP is working with 30 farmers organizations in Minya and Beni Suef. In addition, the project works with partner organizations that can help it deliver its support.

One of the project's key intervention areas is to diversify and strengthen the access of smallholder farmers to sales channels and services. The project aims to do so by developing contract farming modalities, bettering the business environment, and increasing awareness to encourage domestic and international manufacturing facilities to source domestically. It will provide technical assistance and capacity building to improve the supply chain and procurement processes, strengthen the market linkages, and increase demand for smallholder farmer sourcing by exporters, retailers, processors, and other agribusinesses.

It is, therefore, necessary to understand the specific requirements of the exporters, retailers, agribusinesses, and processors when sourcing horticulture products.

Accordingly, this report aims to explain the different modalities of contract farming as well as the key factors and attractive entry points that encourage enterprises to source their supply from smallholder farmers.

OBJECTIVE AND SCOPE OF THE STUDY

The study aims to:

- Understand market dynamics in six governorates by assess how far there is willingness to source from and integrate smallholder farmers in Upper Egypt. The study will also investigate the obstacles facing the integration of smallholder farmers and the requirements necessary for their integration.
- 2. Map success stories and best practices, using contract farming as models.

KEY CONCEPTS AND TERMINOLOGIES

Smallholder Farmers

Smallholder farmers are characterized by owning small areas of agricultural land (3 feddans or less). They are crucial to the agricultural sector, even though many are unaware of the benefits of their integration. There is a pressing need to organise smallholder farmers to be able to overcome the obstacles caused by extreme land fragmentation as well as the economic difficulties facing Egypt and its agricultural industry.

This study has shown that there is willingness from enterprises to procure crops from smallholder farmers, and some already do. The high level of land fragmentation creates a high supply of smallholder farmers to source from, which is appealing to businesses.

Contract Farming

Smallholder agriculture markets in developing nations have many flaws. Low levels of trust and power imbalances between suppliers and buyers, insufficient road and market infrastructure, continuous fluctuations in prices, uneven produce quality, and a lack of trustworthy harvest forecasts or market information systems hinder the integration of smallholder farmers. In such a challenging environment, contract farming has risen as a valuable instrument for smallholders and other market participants to develop and strengthen self-sustaining conditions that are mutually beneficial.

Contract farming (CF) is defined as forwarding agreements specifying the obligations of farmers and buyers as partners in business. Legally, farming contracts entail the

farmers' (suppliers) obligation to supply the volumes and qualities as specified, and the processors'/ traders' (buyers) obligation to offtake the goods and realize payments as agreed. Furthermore, the buyers normally provide embedded services such as:

- Upfront delivery of inputs (e.g., seeds, fertilizers, plant protection products)
- Pre-financing of input delivery on credit (explicit rates not always charged; see insert)
- Other non-financial services (e.g., extension, training, transport, and logistics)

The form and the process of concluding contract farming are quite variable, for example:

- Agreements may be established informally or formally, in verbal or written form.
- Contracts may be concluded with individual farmers or farmer groups.
- Description of obligations may remain quite vague or be reasonably specific.
- Contracts may be renewed each season or cover long-term agreements.
- Specifications may be based on case-by-case negotiations or a sub-sector code of practice.

Research Methodology

RESEARCH APPROACH

In line with the objectives outlined, both primary and secondary research was conducted. The study used qualitative research to obtain a better understanding of the sourcing needs of food processing plants and large retailers of horticulture, MAPs, and other agricultural products. It also sought to understand the major operational obstacles that these manufacturers face when attempting to source domestically or directly from farmer-owned cooperatives (FOs) or smallholder farmers. The research was carried out using an inclusive participatory approach that involved relevant stakeholders and key informants using in-depth interviews (IDIs). Moreover, a set of different activities highlighted in figure (1) below were carried out.



Figure 1: Methodology of the study

SAMPLE COVERAGE, SAMPLE DESIGN, AND INTERVIEWEE RECRUITMENT

Primary research was conducted using in-depth interviews (IDIs). The research targeted nine governorates (Greater Cairo, Alexandria, Beheira, Beni Suef, Sharkia, Fayoum, Kafr El-Sheik, Menoufeia, and Minya), where interviews were held with procurement managers, operation managers, supply chain managers, and business owners of food manufacturing enterprises. The governorates were chosen based on the size of their industrial zones and the size of their manufacturing sector, regardless of whether they have food processors. Assiut, Sohag, and Qena, for example, were not selected because their food processing sectors have only a few formal manufacturers.

A total of 120 IDIs were conducted to include a diverse sample that allows for a thorough understanding of the market. The sample included exporters, processors, retailers, wholesalers, and vendors. It is worth mentioning that wholesalers and retailers have branches in different governates, and some processors had multiple factories across the country. Table 1 depicts the number of IDIs held in each governorate.

GOVERNORATES	EXPORTER/ PROCESSORS	RETAILERS	WHOLESALERS	VENDORS	TOTAL
GREATER CAIRO	33	4	4	1	42
ALEXANDRIA	29			2	31
BENI SUEF	8			1	9
SHARKIA	6				6
FAYOUM	15				15
MENYA	2				2
MENOUFEIA	11				11
KAFR EL SHEIKH	1				1

BEHERIA	3				3
TOTAL	108	4	4	4	120

Table 1: The study sample

RESEARCH METHODS

Research Tools

Enroot developed a qualitative discussion guide that has been used to moderate the discussion with company representatives. The developed discussion guide was sent to GIZ's AIP team for feedback and approval and finalized accordingly. The data collected was recorded and transcribed for analysis and reporting.

Data Collection

The data collection was carried out by two lead researchers using face-to-face interviews. However, some interviews were conducted over the phone for convenience and as a safety precaution to minimize face-to-face meetings during the Covid-19 pandemic. The interviews were 45-60 minutes. Fieldwork started in March 2021 and ended in April 2021.

Recruitment

Konzept and Enroot capitalized on their private sector network in the food industry and in the agriculture produce procurement. Furthermore, Konzept and Enroot along with the project team reached out to specific entities before starting the data collection, this included the Food Export Council (FEC), the Women Business Association, and the Alexandria Businesswomen Association, among others.

Quality Control

In order to avoid bias, each IDI was conducted by two interviewees (1 from the project team and 1 from the Enroot and Konzept backstopping team). In addition, both interviewees received training from Enroot's internal research advisor on how to use the discussion guide.

Moreover, after the first pilot round of IDIs (3 interviews), the interviewers debriefed the backstopping research advisors from Konzept, Enroot and the AIP project to make sure the interview outcomes are comprehensive enough and is in line with the designed discussion guide (Annex 1) and the allocated time.

Factors Affecting Inclusive Procurement

Inclusive procurement offers a promising model for developing the agriculture and agribusiness sector. It has high potential for improving the livelihood of smallholder farmers and benefitting manufacturers/exporters and farmers on the long run. After analysing the main business models operating in the market, several factors have been identified that influence the decision of enterprises to resort to contract farming and inclusive procurement. This section details the factors most frequently mentioned during the research as affecting the decision of enterprises to opt for inclusive sourcing.

SERVING LOCAL VS EXPORT MARKETS

Enterprises that focus only on serving the local market are willing to source from smallholder farmers if other impeding factors have been addressed.

Local markets are subjected to relatively less strict standards. It is therefore more likely for businesses that trade crops that are widely used locally to source from smallholder farmers. Products such as Okra and White Beans are widely spread and are highly demanded in the local market. Therefore, enterprises that trade these, and other crops that are mainly sold locally, could source from smallholder farmers. Furthermore, onions that are exported in dried form tend not to be subjected to strict compliance standards, which also makes it easier to source from smallholder farmers. Also, some crops sourced from smallholder farmers, such as strawberries, are internationally competitive. Such crops, can therefore, also be sourced from smallholder farmers.

DIVERSITY OF MARKET CHANNELS

Enterprises that have access to multiple export destinations can afford to source from smallholder farmers, despite there being some degree of risk.

This is explained by the diverse stringency in standards of the different export destinations. The ability of the enterprise to access different export destinations allows it a degree of flexibility when sourcing. They have the flexibility of exporting to destinations that allow relatively more lenient standards, and would, therefore, accept sourcing crops of different standards at different prices. For example, exporting to Russia does not require a microbiology test, while the EU pesticide requirements are stricter. Therefore, the enterprises can export to both destinations the same crop but grade it according to their requirements. This helps the enterprise establish trust and long-term relations with farmers because they are not likely to reject any produce. This in turn increases the farmer's commitment to the agreement and adherence to the communicated instructions.

UNPREDICTABLE MARKET CONDITIONS

Having access to limited export channels in addition to unpredictable demand patterns and severe market fluctuations reduces the willingness of enterprises to source from smallholder farmers.

Enterprises that have awareness of future export obligations towards their customers are not willing to source from smallholder farmers. Their risk-averse attitude is explained by the obligation they have to agreements made with their international customers. Conversely, enterprises that suffer from unpredictable demand patterns in the export market are also less likely to conduct contract agreements with smallholder farmers. This is explained by the fact that they will then have a binding agreement with smallholder farmers to buy the crop at a predetermined price while they cannot predict what the market will demand at the time of selling. Thus, if the enterprise cannot predict the volume of its customers' demand, it bears the risk of making losses.

THE VOLUME OF CLIENT DEMAND

Enterprises that are committed to meeting significantly large volumes of exports and adhere to strict quality standards have difficulty in resorting to smallholder farmers.

This is explained by the inability of contracted farmers to adhere to the standards required and to follow the cultivation instructions communicated by the enterprise. In such cases, incorporating the cultivation process within the supply chain management of the enterprise firm proved successful. Furthermore, enterprises that reported being able to meet demand volume and export standards while sourcing from smallholder farmers were the ones that contracted manufacturers. The contracting entity, in that case, is responsible for supporting, managing, and monitoring the farmers they deal with while being accountable to the terms of the contractual agreement signed with the enterprise. Businesses that have to meet high volume demands include those trading in herbs and spices, and these find it particularly challenging to source from smallholder farmers.

THE COST BURDEN OF MICROBIOLOGY TESTS

Enterprises opt for dealing with large-scale farmers to reduce the cost burden of the microbiology tests otherwise incurred on them if they rely on multiple sources.

Sourcing most of the volume demanded from a single and traceable source reduces the number of samples needed to be drawn to undergo the microbiology test and such tests and certifications are relatively costly to the enterprise. Sourcing from different farmers requires drawing numerous samples and testing them which magnifies the cost. It is, therefore, more cost-effective for the enterprise to source from a single large-scale farmer. Furthermore, large-scale farmers - according to several field findings - tend to be relatively more commercially aware than smallholder farmers. They have previous experience in farming large-scale crops and have already accumulated knowledge and experience in the specific crops they trade. For example, smallholder farmers are unaware of the effect of plastics and how to identify fake pesticide bottles, which then requires enterprises to conduct additional testing, adding to the cost and also risking that the crops of smallholder farmers will be rejected.

THE NEED FOR VALUE ADDING ACTIVITIES

Enterprises that contract smallholder farmers via a trader/middleman are motivated by their need for post-harvesting activities.

The decision whether or not the enterprise involves a trader depends on the nature of the crop demanded and the model adopted. One of the main determinants of the decision – as shown by the fieldwork – is the need for value addition activities proceeding cultivation. These post-harvest activities include the collection of crops from multiple producers, financial compensation to farmers, testing, transportation, and grading.¹ This is more evident in cases in which the enterprise does not conduct additional activities in-house before receiving the crop, for example when the enterprise exports fresh crops. In this case, enterprises prefer to deal with traders since they provide post-harvest activities that cannot be carried out at the factory.

THE TYPE OF CULTIVATED CROP

When it comes to specific crops, businesses find that the benefits of dealing with smallholder farmers outweigh the cost. Moreover, enterprises that can replace the assistance of traders prefer to directly contract smallholder farmers. For example, enterprises that have partners residing within the governorates from which they contract farmers can closely monitor them and provide the needed assistance.

Crops such as Onion, Garlic, and Pepper, which are commonly and widely cultivated, are preferably sourced from smallholder farmers. Crops that are cultivated by smallholder farmers yearlong such as pepper, and are not tied to a season, are generally more likely to comply with the standards required. This is explained by the fact that smallholder farmers are more motivated to comply with instructions since they do not need to quickly switch to the upcoming high return crop after the end of the season. Furthermore, for crops that have less restrictive characteristics and are not demanded in high volumes, smallholder farmers provide the most favourable cultivation conditions.

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¹ Grading is the process of scaling the produce into groups based on the level of the pesticide's contamination.

CREDIBILITY OF SMALLHOLDER FARMERS

Lack of compliance with standards, defaulting on contracts, limited production volumes, inflexible payment plans, and the lack of tractability of sourcing farmers, are challenges enterprises face when sourcing from smallholder farmers.

Despite the edge smallholder farmers have by their ability to provide proximate care to lands, they are still limited by the small scale of their cultivated land, which reduces productivity. Furthermore, smallholder farmers tend to be motivated by short-term revenues and, in turn, tend to compromise quality as well as productivity to fulfil their agreements, which in turn reduces the long-term productivity of their land and the quality of their crop. Furthermore, the low degree of trust governing the relationship between smallholder farmers and enterprises impedes the completion of successful contracts. Farmers tend to default on contracts when the market price exceeds the price set in the contract at the delivery stage. This threatens the credibility of farmers and triggers a riskaverse attuite from enterprises that reduce the probability of dealing with them in the future. In addition, the difficulty of regularly securing cash flow makes enterprises unable to provide down payments to farmers. This, consequently, impedes farmers from covering the pre-cultivation costs in advance, which they often cannot afford. Another obstacle facing contract farming is that exporters, on the one hand, demand to see the farmer's products to make sure it complies with export standards before contracting and, on the other hand, the farmer refuses to farm for the exporter without a contract

PRICE NEGOTIATIONS

Enterprises face several challenges in negotiating deals with farmers and resort to middle traders.

Enterprises are often unable to negotiate and reach a satisfying payment plan with small farmers. Traders are more investment and business-oriented and are, therefore, easier to negotiate with and reach an agreement that satisfies both parties. Also, high land fragmentation among smallholder farmers means that for businesses to purchase the desired volumes, they need to contract several farmers. However, not all enterprises have the capacity to manage transactions from a large number of farmers, and instead,

rely on middlemen/traders to collect the requested volume on their behalf. However, only under specific conditions is this model successful.

Furthermore, due to the geographical and cultural proximity of traders to smallholder farmers they can better communicate with them and closely monitor them. Traders carry the task of collecting the crop during cultivation season and handle transportation procedures. This reduces the search and transaction costs otherwise incurred by the enterprise. A trader's main interest lies in selling large quantities and taking the commission rather than selling at the exact market prices. Farmers, on the contrary, have a greater interest in selling at market prices or the pre-determined price, which then can affect their contractual commitment. These conflicting market drivers influence the decision of farmers to commit to contract farming and discourage enterprises from it as well.

THE MONOPOLY POWER OF TRADERS

As middlemen, some traders use the power they have on both farmers and enterprises, leaving both parties at a disadvantage.

There are two types of traders. The first type of traders are the ones that strictly act as middlemen and understand the needs of both parties and create the necessary link accordingly. The other type are the monopolizing ones that do not provide any value addition but capitalize on their high cashflow and power over the farmers to control prices and quantities.

The main problem lies in that monopolizing traders have access to the majority of the crops produced by smallholder farmers and are able to store a share of the products to sell off-season at higher prices. However, collecting from multiple sources and storing the crop in poor conditions compromises the quality of the crop delivered to the enterprise. Furthermore, the soil and exact cultivation process can no longer be traced and monitored. The monopoly power that traders hold over the market reduces the likelihood of enterprises exporting their products and reduces the benefits trickled down to smallholder farmers. Enterprises, in such cases, prefer to source directly from smallholder farmers.

SOURCE TRACEABILITY

Traders who keep track of their sources present a positive opportunity for enterprises and encourage sourcing from smallholder farmers.

Enterprises tend to keep a record of traders with whom they have frequent favourable interactions and resort to them as a trusted source. This increases the credibility and frequency of interactions. Furthermore, traders who keep track of their sources are considered an asset by enterprises since they ease the quality assurance procedures. During this research, enterprises communicated the need to access crops during the off-season period. Thus, if quality storage facilities are provided by traders, they will be able to secure market transactions over an extended period that extends beyond peak seasons.

SOURCING MODELS

Enterprises resort to several models in their sourcing efforts. Some enterprises have multiple and diverse sources, either to satisfy different production channels or to reach a targeted quantity. It is also common for large enterprises to establish their own private farms to guarantee that they receive the quality specifications and quantities required, as these highly affect their market share and profit. Despite having their own farms, they still need to source from farmers and use contract farming with farmers they have long-standing relationships with. Medium to small enterprises, on the other hand, would rather outsource from multiple sources, usually dealing with large-scale farms to guarantee they will get the quality required and to avoid the hassle of supervising farmers. Large-scale farmers and traders with more expertise in recruiting and grading farmers, thus, have an added value for smaller enterprises.

Directly to Smallholder Farmer

Smallholder Farmer via a trader

Strengths	 Tends to give more care to the land. More reliable and trusted than middlemen. Allows for high-quality control. 	 Flexible prices and payment plans Deals and communicates easily with farmers. Provides value adding activities.
Weaknesses	 Tend to compromise quality and productivity. Difficult to manage. Tendency to default in agreements. Inflexible payment plans 	 Untraceable and multiple sources. Have monopoly power over prices and quantity. Reduce benefits to farmers.
Opportunities	 Useful in cases of a consistent flow of revenues. Suitable for crops with limited demand. Useful for cultivating specific varieties. 	 Trusted source for enterprises. Tracks farmers and provides them with guidance. Provide quality crops during offseason periods.

The study has shown that the first choice of most companies is to source from large-scale farmers and traders. They prefer to either source primarily from large scale farmers and resort to traders to complement the missing quantities, or in case market prices offered by large farms are high they prefer to resort to traders who can source from small farmers at cheaper prices. Sourcing from small farmers, while not commonly desirable, offers a flexible model that can be utilized in the specific cases when the crop is labour-intensive and requires extra care, Like for example with okra, pepper, strawberries, and chamomile.

Table 2 summarizes the key characteristics and challenges of each model.

Model	Key Characteristics of Application	Challenges
Private Farm Large-scale Farmers	 For demands in large volumes For exports targeting a limited number of destinations. For exports requiring strict quality standards. Reduce the burden of microbiology tests. Reduce the difficulties of dealing with multiple farmers. 	 Rigidity in switching to new or different crops. Risk of default if the crop's specs are commonly demanded by other enterprises. High cost of overheads.
Smallholder Farmer -Direct	 For crops need close monitoring and extra care. For crops that are not commonly and/or widely cultivated. For demands that are not very high in volume Attractive for sourcing cops with special characteristics. For target markets that do not require strict quality standards. 	 Difficulty of dealing with multiple farmers. Rigidity in following instructions and applying new methods.
Smallholder Farmer – Via Trader	 For demands in large volumes and crops that are commonly cultivated. Cannot provide farmers with down payments in advance. For companies that need close monitoring of farmers. 	 The monopoly power of traders over the market. Risk of defaults due to price negotiations. Low quality of the crop due to poor storage facilities.

- For companies that need value adding activities postharvesting.
- For companies that have a limited capacity for managing a large number of farmers.

Table 2: Summary of key characteristics and challenges of each sourcing model

PLANTFORM

SUCCESS STORY #1

CONTEXT

Plantform is one of the leading companies in the food processing sector. The company significantly relies on contract farming from smallholder farmers in peppers – nonetheless they have demonstrated expertise in other crops. On average, Plantform deals with smallholder farmers who hold around 2.5 feddans.

During early years of activity, smallholder farmers represented a promising opportunity for Plantform given their potential and willingness to learn new techniques. Furthermore, the company faced challenges in sourcing from traders due to the monopoly power they hold over the market. Moreover, due to the accumlated experience of Plantform, the company was able to identify the main reason behind unsuccessful contract agreements; the absence of a strong incentive for farmers that deters default.

FARMER - ENTERPRISE MODEL

Plantform successfully conducts contract farming agreements directly with smallholder farmers. They provide farmers with technical guidance and support throughout the entire farming and cultivation process. The main success factor derived from Plantform's experience is applying a mechanism that helped farmers to generate an on-going stream of income. Thus, they were able to retain farmers, ensure their adherence to standards, and established trust between both parties.

Plantform exports different processed varieties of pepper. Each processed variety requires a different grade of pepper, which is harvested at a specific stage throughout the cultivation cycle. Given the wide range of varieties traded by Plantform, farmers are able to harvest multiple times during the year and generate multiple streams of income compared to a single transaction per season.

By applying this strategy, farmers were confident that they would have a constant stream of income all year round; not only during peak seasons.



BLUENILE

SUCCESS STORY #2

CONTEXT

Blue Nile is among the top performing companies in the exports of fresh crops; with special focus on Green Onions, Green Beans, Peas, Strawberries, & Grapes. Majority of the produced crops under the company are exported – around 70 percent.

The company either deals with a trader or contracts large-scale farmer is driven by the commonality of and scale on which the crop being cultivated. More specifically, Blue Nile opts for contracting large-scale farmers in cases like Grapes, since the cultivation of the process is usually on the scale of the farm – not on fragmented land. On the other hand, if the crop – like Green Beans – is cultivated over small land areas and can be widely accessed, the company opt for traders.

Blue Nile have proven success in maintaining contract agreements with farmers. This has been achieved after trials and errors in terms of the agreement.

FARMER - ENTERPRISE MODEL

Blue Nile amends their contracts to reduce probability of default by deterring from fixing the price in the contract. The company is aware of the existing extreme market fluctuations and its effect on farmer's incentives. Furthermore, the incentive of the farmer – and in some cases applies to the company as well – is the availability of substitute sources of demand for the crop. This is explained by the standardized set of specs requested for this crop per se.

Blue Nile has a record of succeeding in dealing with small farmers, but through a trader/middleman. This is explained by that farmers tend to trust the trader relatively more than the company. Furthermore, trust is driven by their familiarity with the trader's background and his geographical proximity.

Export destinations have helped Blue Nile in conducting successful agreements. Given that most of the exported products of the company are sold in supermarket chains abroad, therefore, they are able to negotiate a price that satisfies both the company's performance records and the needs of farmers - given export market prices.



NORMELLA

SUCCESS STORY #3

CONTEXT

The company is specialized in exporting fresh Garlic to multiple destinations. Despite this, Normella focuses on securing produce that meets quality standards and of high hygiene. The company has a different and unique model that stands out among other companies in the market.

FARMER - ENTERPRISE MODEL

The enterprise has two partners, one partner is responsible for the procurement process; reaching out to smallholder farmers and conducting an agreement with them while providing technical guidance and monitoring. The other is responsible for the post procurement process. Given the nature of the partnership between the owner and his partner, Normella is able to directly contract and deal with smallholder farmers. Being in a proximate location to farmers, the company offers a model that replicates the "Enterprise-Trader-Smallholder Farmer" model, without the challenges of dealing with an actual trader.

This model helps the company in managing smallholder farmers directly without the involvement of a trader who exercises monopoly power. Furthermore, to avoid the risk of default or compliance with standards, Normella deals with a set of trust farmers who have a proven record of successful agreements with the company. Therefore, the company is able to successfully replicate an adjusted model that has been regularly associated with challenges.



NABIL MORSI

SUCCESS STORY #4

CONTEXT

The company has been operating in the market since 1983 and specialized in exporting MAPs, namely Marjoram, Basil Mint, Fennel, and Chamomile. Driven by their promise of providing clean and hygienic crops, the company has been exploring different models that would guarantee to harness the best quality of crops.

The company aims to receive clean fresh crops from farmers and any required post-harvesting activities are conducted at the factory. Nonetheless, MAPs crops benefit more from post-harvesting activities being conducted at the farm. This reflects the need for altering the company's strategy to match the nature of the crop traded.

FARMER - ENTERPRISE MODEL

The company opts for contracting farmers when dealing with crops that have specific specs, The farmer small scale allow them to take better care of the crop, through adequat storage and harvesting. Therefore, providing inputs and guidance directly to farmers is more cost-effective since the return on time invested is realized in securing the availability of a crop that meets the standards. To overcome the problem of limited yields due to land fragmentation, the company encourages small farmers in proximate locations to cultivate the same crop. This is translated into benefits to the company in terms of securing larger volumes of production and reducing the risk of contamination.

The involvement of traders is sought when the crop demanded is widely cultivated and available. Therefore, the standards required are commonly known and easily met by the majority of the produce that is accessible to the trader. In these cases, the company can cut off the extra cost associated with closely monitoring contracted farmers, nonetheless, they still inspect the product received.



NIVEX

SUCCESS STORY #5

CONTEXT

The company is specialized in Beans, Grapes, Strawberries, and Onions with majority of production exported. Despite reporting to rely on their own farms in securing the needed level of production, they have successful experience in dealing with small farmers and NGOs.

The main problem reported by several enterprises is their inability to keep track of the small farmers that the trader deal with. Therefore, this creates challenges in reporting the cultivation method to their clients.

FARMER - ENTERPRISE MODEL

Nivex relies on traders when dealing with smallholder farmers to reduce the hassle of managing a large number of individuals. Nonetheless, the company's take on this model is to keep a record of the smallholder farmers, while still relying on traders as a channel of communication.

Moreover, the company is responsible of providing technical guidance and monitoring to all farmers. Furthermore, the company applies a meticulous tracking system that helps them in identifying the source of all shipments and share it with their clients.

Another noted success factor in their contract farming agreements is deterring away from fixing prices in the contract. Alternatively, they agree with farmers to settle the agreement at the market price prevailing at the date of delivery.



GARLICO

SUCCESS STORY #6

CONTEXT

Despite specializing in exporting all grades of Garlic, the company deals in other crops including Onions, Oranges, and Lemons. Garlico receives from farmers fresh crop and conducts any needed post-harvesting activity in-house at the factory. Due to the large volume of demand that the company needs to meet, they rely on contracting large farmers directly, but deals with small farmers through a trader.

FARMER - ENTERPRISE MODEL

Garlico attributed their success in this area to their understanding of the capacities of each actor in the process. The company understands that Smallholder farmers are not business-oriented, so they opt for providing them with the required inputs and handle any finances on their behalf; they only expect them to take care of the farming process.

When dealing with traders, Garlico understands the challenge they face in finding crops that meet strict specs due to the conditions faced by smallholder farmers. Therefore, they opt for traders and sourcing from small farmers when searching for crops that do not require special standards.



AGROMISR

SUCCESS STORY #7

CONTEXT

Among the leading companies in Egypt Agromisr focuses on several crops including Onions and Garlic. The company trades in large volumes in the international market. Despite, they are among the few companies that apply contract. farming directly with smallholder farmers and have a successful experience

FARMER - ENTERPRISE MODEL

The motivation of the company to switch away from traders is their belief in the share of income they take away from farmers. Furthermore, the company needs to closely monitor farmers during the cultivation process to ensure quality.

Driven by this motivation, Agromisr has a skilled team to conduct quality checks on farmers to closely monitor the farming process. The company is aware that farmers face other difficulties during post-harvesting that compromises the quality of the crop. Therefore, Agromisr provides farmers with all necessary equipment that ensures the delivery of the crop in its best state. This includes special packages and other manual sorting tools. In addition, the company provides farmers with technical guidance and the provision of farming inputs.

This guarantees that Agromisr sources the demanded crops at the required standards while securing benefits to smallholder farmers



AMD VERDE

SUCCESS STORY #8

CONTEXT

Established in 2005, AMD Verde has been specialized in a variety of MAPs crops including Basil, Mint, Marjoram, Chamomile, and Anis. The company has a successful history in dealing with smallholder farmers and reducing their degree of reliance on traders and middlemen. Moreover, they were able to retain the commitment of farmers and their adherence to the standards required.

FARMER - ENTERPRISE MODEL

The successful story of AMD Verde begins with their dedicated team that closely supervises all steps along the value chain. Although aware of the overhead costs associated with this model, they are able to secure the crop demanded at the required standard. With this, the company's team provides farmers with guidance and either supply them with high-quality pesticides or recommends alternatives.

The company was able to guarantee meeting the required quality by tracing back the root source of quality-related challenges. By following this strategy, they were able to identify the crops that require a special level of care all the way back since the harvesting stage. Accordingly, AMD Verde started providing all the necessary tools and facilities that would reduce the probability of damaging the crop.

Aware of the high costs associated with organic farming, the company motivates farmers to comply through incentives. The main incentivizing strategy followed by the company is paying farmers a fixed rent that secures their income. This allows Verde to adhere to the required standards.



AL SAEED FOR AGRICULTURE CROPS

SUCCESS STORY #9

CONTEXT

The company is among the leaders in the exports of Garlic, Onions, Pomegranate, and Grapes. Al Saeed offers a unique successful example by applying two models of sourcing. The company is able to deal with traders and at the same time source from small holder farmers.

Despite that the model of the company does not follow direct contract farming with smallholder farmers, they are able to source from them without contractual agreements.

FARMER - ENTERPRISE MODEL

The company sources from traders Garlic and the model has been successful so far with minimal challenges identified. The common difficulties faced while dealing with traders are related to their commitment. Nonetheless, the company is able to overcome this challenge by dealing with a wide number of traders that allows them a degree of flexibility.

Al Saeed has a successful experience in sourcing from smallholder farmers around 80 percent of Onion demanded. The challenge that has been identified by the company is related to educating farmers on the different types of pesticides and their usage. The solution identified by the company was to create a list of the different pesticides along with the schedule that farmers should follow. By adhering to the schedule and the recommended fertilizers, Al Saeed was able to successfully source from small farmers.



GREEN EGYPT

SUCCESS STORY #10

CONTEXT

The company is among the leaders in the exports of Garlic, Onions, Pomegranate, and Grapes. Al Saeed offers a unique successful example by applying two models of sourcing. The company is able to deal with traders and at the same time source from small holder farmers.

Despite that the model of the company does not follow direct contract farming with smallholder farmers, they are able to source from them without contractual agreements.

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Conclusion and Lessons Learned

In general, sourcing from smallholder farmers and contract farming can be promising for agro-industry development. The quality of farm produce can be rapidly improved through contract farming to meet global market standards. This, however, will require a lot of effort from local agencies and enterprises.

This section summarizes lessons drawn from the success stories reviewed and findings presented in the previous section. The conclusions presented below are to be considered in the project's efforts to spread the practice of contract farming and promote inclusive procurement.

SMALLHOLDER FARMERS

Enterprises recognize that there are advantages to sourcing from smallholder farmers but do not have the knowledge on how to capitalize on that. Farmers are specialized in farming and therefore can offer quality control to the crops demanded.

- Expensive labour-intensive crop production: Sourcing labour-intensive crops such as Okra and Chamomile from large farms is costly and, therefore, enterprises prefer sourcing from smallholder farmers as a cheaper source. They are small-scale and having the farmer's family involved in the farming process renders their production cheaper.
- Quality control: Because of their small scale they are better able to care for the crops.

At the early stage of contract farming, both contractors and growers should have a clearcut agreement. However, rigid contracts are unsustainable, as farmers do not fully understand concepts, standards of quality, or loss due to late or untimely delivery.

 One way by which successful examples were able to overcome this challenge, is by providing the farmers with a technical team that would assist them throughout the season. The enterprise incurs high monitoring and supervision costs to guide and convince farmers to adopt new techniques. Contractors should have the willingness to follow up closely with farmers during the production process and provide them with guidance and technical assistance.

- Demonstration plots serve as a lower-cost solution, as presented by successful experiences.
- Having a trader or an agent that replicates the role of the trader while being geographically proximate to the farmer helps in the process – it is more costeffective.

Contract farming offers more benefits on the long run, more than it does in the short term. Therefore, only enterprises with awareness of the return on investment (in terms of effort) are able to pull through the challenges faced during the early stages and ripe off benefits later.

- This calls for intensive awareness among enterprises to realize the possibility of a "win-win" result on the long run.
- Smallholder farmers have proven that with technical assistance and input provision they will be able to provide competitive products, as has been shown with strawberries and pepper. The farmers went through a learning curve that was not profitable in the short run, however, proved that they are able to offer substantial benefits.
- This shows that awareness is needed among farmers to emphasize long-term benefits over the short-term goal, and therefore avoid side selling and conflicts which stand in the way of effective contract farming.

Fixing fair prices is always a challenge. There is a high level of uncertainty weakening the trust in contract farming as a model. Price stabilization can, therefore, help alleviate income risk. Furthermore, settling this element in the agreement reduces the risk of default on contracts. There are four main successful pricing models that enterprises opt for:

Model 1: Set prices in the contract and execute the agreement at the price
offered in the market by that time. This reduces the perception of farmers that
they are being exploited.

- Model 2: Gain the trust of farmers by setting a minimum that covers the cost of production in the contract while adding an extra premium at the delivery stage.
- Model 3: Provide farmers with the lowest purchase price to ensure that they
 would be covering, at least, the costs incurred during cultivation while leaving
 the transaction price to be determined at the time of delivery.
- **Model 4:** Fixing the prices in the contract for 50 % of the quantity required, and the rest of the quantity is paid after delivery and is based on the market price.

The majority of enterprises face cash flow problems and are not usually able to provide sufficient down payments to farmers to cover initial running costs. This discourages farmers from engaging in contract agreements since they are not able to cover initial farming costs.

 Farmers' fear of not selling the crops against large down payments can be overcome by subsidizing input supplies, as cost-sharing, to reduce the associated risk burdened by the farmer.

To reduce the cost burden of providing high-quality supplies, enterprises should consider applying vertical integration to secure inputs at competitive prices.

Unpredictable market conditions create tension while making agreements with farmers. Enterprises could overcome this challenge if they can hedge for risks that affect market prices.

Conduct back-to-back agreements with international clients to secure the prices at which the crop will be sold and set the price with farmers accordingly.

Sourcing from smallholder farmers carries the risk of not covering the volume demanded and the risk of external sources of contamination. This is caused by land fragmentation, which makes several owners of small proximate patches of land cultivate different crops. Moreover, given the small scale of lands owned by farmers, they might not commit to instructions and sometimes end up switching to a different crop.

 One way to secure adequate volumes of production is by encouraging proximate small farmers to cultivate the same crop. This reduces the risk of contamination from external sources. To encourage farmers to adhere to standards and not lose their commitment, enterprises should find channels through which they can sell different grades to keep income flowing to farmers.

TRADERS

Lack of trust during the early stages represents the key bottleneck for contract farming. Enterprises prefer having a non-biased third party to supervise the contract. Therefore, commitment from local officials can make contract farming successful. Furthermore, the inability of enterprises to keep track of their sourcing farms discourages sourcing from small farmers despite the facilitation services provided by traders.

- This could be mitigated by relying on local traders to supervise the process; these agents provide the names and locations of farmers so that they can be easily traceable to the enterprise. The Traders' geographical proximity and familiarity with farmers adds a degree of trust to the relationship between the farmer and the enterprise.
- To mitigate the farmers' lack of awareness on how to protect their rights in cases of conflict, contracting (using ID number and signature) may create more trust.
- To avoid losing track of sources when dealing with traders, enterprises are advised to conduct the deal directly with the farmer. During later stages, the enterprise can rely on the trader to deliver inputs, guidance, and act as a channel of communication.

Traders exercise monopoly power that exploits both farmers and enterprises. Nonetheless, they hold promising potential and can benefit enterprises and farmers if their behaviour is regulated.

 To overcome the monopoly power exercised by a trader, enterprises are advised to have more than one trader with which they have deals and agreements. This eliminates the probability of having a single trader holding a large share of the market.

FARMER ORGANIZATIONS

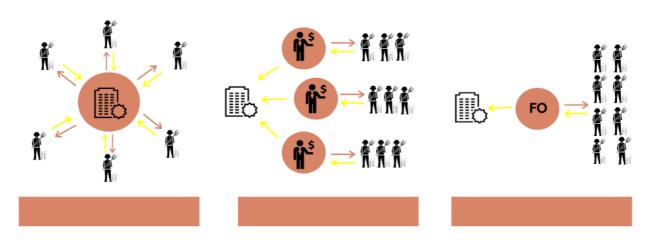
Understanding the involvement of farmer organizations in the value chain is one of the primary objectives of the industry scan. Numerous enterprises found it challenging and thus never resorted to source through farmer organizations (FOs) for the following reasons:

- Enterprises are reluctant to cooperate with FOs.
- Some enterprises communicated during this study that there is an accumulated mistrust of FOs created by previous encounters. Most of them are only open to cooperating with FOs under solid contracts and guarantees.

A few Enterprises recognized that FOs have the necessary infrastructure that enables them to act as intermediaries. However, they are discouraged the weakness of the FOs. Rules and regulations guiding farmer organizations are complex and underdeveloped since they did not adapt to the industrial and export expansion that happened in Egypt in the last decade.

 The legal and financial framework is needed to enable framer organizations to provide services such as technical, financial, marketing, and legal assistance, as well as post-harvest activities such as collection and grading.

CONTRACT FARMING MODELS



Input Supplier	The Enterprise	The Enterprise	The Farmer Organization
Uses a contract	YES	YES	YES
Sets the pricing Strategy	Negotiation between The Enterprise and the Farmers	Negotiation between The Enterprise and the trader	The Enterprise
Close Monitoring	The Enterprise	The Enterprise	The Farmer Organization
Post-Harvest logistics	The Farmer	The Trader	The Enterprise
Collection and testing	The Enterprise	The trader	The Farmer Organization
Interface with the Enterprise	The Farmer	The trader	The Farmer Organization

Technical	Weak	Relative	Strong
and			
Financial			
Assistance			
Farmer	Weak	Weak	Strong
Grouping			



Annex 1: Discussion Guide

SECTION #	DISCUSSION AREA	TIME
1	INTRODUCTION & WARM-UP	5 MIN
2	KNOWING THE COMPANY	5 MIN
3	UNDERSTANDING THE SOURCING	10 MIN
4	CONTRACT FARMING AND SMALLHOLDER FARMERS	10 MIN
5	WILLINGNESS TO SOURCE FROM SMALLHOLDER FARMER	10 MIN
6	WILLINGNESS TO PARTICIPATE IN THE CAPACITY BUILDING COURSE	10 MIN
	TOTAL	50 MIN

1. INTRODUCTION & WA	RM-UP 5 N	1IN
	Introduction: We are firm, that aim at underst	anding the
	community to propose viable solutions for ar	inclusive
	development in an unbiased way. We link	between
	development organizations and individuals like y	ourselves.
	We carry out studies through data collection, an	alysis, and
	reporting.	
	We have been hired by GIZ to conduct an	industrial
	screening of the food processin	g facilities,
	exporters, retailers, and wholesalers in six governo	orates. Our
	aim is to understand the produce	demand
	side (the companies) and investigate agribusines	s sourcing

methods and the procurements potential. As well as collect success stories that will help showcase the best Practices and models of contract farming.

We are very grateful for your participation and your time with us today.

The interview will take roughly an hour maximum. There are no right and wrong answers. You have the freedom to refrain from answering any questions and stop the interview at any time. Please note that this interview is anonymous, and results are confined for the use of GIZ for the purpose of this study only. The small device placed here is a recorder for our conversation to help me refer during the analysis and save me from taking notes as we speak. The recordings will be only shared with my team for the analysis.

2. KNOWING THE COMPANY

5 MIN

Now, I would like to start our discussion today by getting to know more about you and the companies' products.

- 1. Your position and role in the company
- 2. How long have you been in this organization?
- 3. Can you give us an overview about the final products that this company sells?
- 4. How much of the company's products are exported (volume and rate)? and how much is locally supplied?

3. UNDERSTANDING THE SOURCING

10 MIN

Assess current and planned demand for agricultural produce.

- 1. What is company's demand from agricultural produce as an input? According to?
 - 1. Seasonality

Evaluate import vs source locally trade off.

- 2. Volumes
- Trends
- 2. Do you have a set of specifications for the agricultural produce you demand? if yes, what are they?
- 3. What is the company's main input source?
 - 1. Is it imported or local? If local which governorates, if imported which countries?
 - 2. What is the relative ratio of imported to local inputs? If more on imports, why?

4. CONTRACT FARMING AND SMALLHOLDER FARMERS

10 MIN

Capture the current procurement approach and challenges faced by manufacturers.

Capture additional challenges such as logistics, cold storage availability, market information etc.

- 1. If locally sourced, are they smallholder or large holder framers?
- 2. Are you familiar with contract farming?
 - 1. If yes, is the company involved in any contract farming agreements.
 - 2. If yes, what is geographical zone in which contract farming is happening? And for which crops?
- 3. What is the procurement approach that you follow with the farmers?
 - 1. What are the key strengths of this approach?
 - What are the procurement processes required?(e.g., documents and contracts)
 - 3. Are there any intermediaries involved in the process?
- 4. Are there any challenging factors that you face throughout this procurement process? (logistics, storage, market information and financing)

5. WILLINGNESS TO SOURCE FROM SMALLHOLDER FARMER

10 MIN

Determine Willingness to source from smallholder farmer.

Determine key challenges to sourcing

from smallholder farmers (reliability, quality, and volume)
Assess previous experiences with contract farming.

- Do you have any previous experience with smallholder farmers?
 - 1. If No: Are you willing to source from a smallholder farmer? and why? (if no: challenges, if yes: opportunities)

Introduce contract farming and evaluate familiarity?

Asses embedded services

Asses embedded services provided to ensure quality, volume, and 2. reliability of supply

- 2. If yes: In your opinion what are the challenges and opportunities of sourcing from smallholder farmers?
- 2. In your opinion what do you think is hindering smallholder farmers from overcoming these challenges?
- 3. Are there any embedded services that you implement to ensure quality, volume, and reliability of supply? (e.g., finance, improved seed varieties, advisory services)
- 4. From your experience what is your recommendation for: (lessons learnt)
 - 1. Improving the procurement methods
 - 2. Overcoming the challenges

6. WILLINGNESS TO PARTICIPATE IN THE CAPACITY BUILDING 10 min

Evaluate the company's willingness and interest in attending a course and facilitation of contract farming, focusing on sourcing from smallholder farmers in

Upper Egypt

- 1. Based on these challenges, what is your opinion on implementing a capacity building course introducing new approaches of procurement, that would help overcome those challenges?
- 2. Would your company be willing to attend this capacity building course?
- 3. Discussion on what the course will provide and their willingness to collaborate we will provide a capacity building course that aims to introduce optimal procurement methods and supply chain systems with smallholder farmers. It will also, introduce contract farming formal legalities, risk management, conflict management and logistics. It aims to offer a holistic understanding of contract farming and provide training from two procurement experts.