



Contract farming in Ethiopia

An overview with focus on sesame

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1 Introduction

1.1 Sesame in Ethiopia

The range of altitudes that exists in Ethiopia offers tremendous opportunities for growing various kinds of oilseeds. Oilseeds are the second largest export product of the country, generating a substantial amount of foreign currency and creating, mainly rural, jobs. Ethiopia is one of the top five producers of sesame and linseed in the world. Sesame seed, the focus of this paper, is the main export product that widely grows in Oromia, Tigray and Amhara regions. A CSA survey shows that in 2006, the country produced 149,000 tons of sesame to serve the local and international market. The local demand is mainly from oil refiners, processors, bakeries and others. Sesame is exported to China, Israel, Turkey, Middle East, EU and US (Wijnands, et al., 2007).

The oilseed sector of Ethiopia encompasses both large scale farmers and smallholders. Usually large scale farmers deliver their output to processors or exporters while the smallholders largely dependent on village traders who are their main market outlet. Despite their limited linkage with agribusinesses, smallholders largely dominate the sector by covering around 80% of the cultivated land, characterized by low input rainfed farming.

Apart from the great natural potential of the country, the oilseed sector of Ethiopia generally lacks the necessary technologies and institutions to strengthen its value chain and to contribute to pro-poor development. Similar to many other developing countries, most of the smallholders do not have access to important inputs and technologies such as fertilizers and improved seeds. Lack of credit and market uncertainty compound smallholders' problems. The general lack of inputs hampers smallholders to improve volume, quality standards, marketing and in turn establishing contracts with agribusinesses. Although cooperatives also buy from smallholders, they have to cope with problems such as side-selling by cooperative members and management failure. Moreover, government interference in the work of cooperatives is considered unfavourable (Wijnands, et al., 2007). On top of this, in the case of contracting, there is a lack of contract enforcement mechanisms.

The Ethiopian agribusiness (mostly consisting of exporters) faces difficulty in procuring produce from spot markets at required quality and quantity at the right time to satisfy the demand of the foreign markets. As a result, exporters have expressed an interest to engaged in trade relationship with producers in a way to address those problems and minimize transaction costs¹.

1.2 WUR Research program and project

Despite these obstacles, the Ethiopian Government aims to raise oilseed production outlined in the Plan for Accelerated and Sustained Development to End Poverty (PASDEP). Similarly, the government has signed a Public-Private Partnership for Oilseeds with The Netherlands to promote

¹ Agenda Setting Workshop 26 June 2008, Addis Ababa, which was part of the DGIS-WUR programme in Ethiopia.

pro-poor development of the sector. Following this agreement, the project called ‘Value Chains for Pro-Poor Development; action research program sesame value chain Ethiopia’ was established at Wageningen University and Research Centres. The program includes the project in Ethiopia ‘Transaction risks in the sesame value chain’. Under this project, a preliminary survey and discussions with the main stakeholders in the oilseed sector were conducted to identify the major problems of the sector and possible remedies. The stakeholders agreed on an action research component on contract farming involving exporters, farmers and farmers’ organizations with the objectives of:

1. Providing an overview of contract farming arrangements including specific examples from different countries and crops that can be useful in the Ethiopian context
2. Identifying potential solutions to contract farming in sesame in Ethiopia
3. Proposing recommendations for improving existing contract farming practices in sesame in Ethiopia

1.3 Overview of the paper

As a first phase of the action research, this paper focuses on the first two objectives above whereas the last one will be addressed in a second phase (field survey). The first phase work is purely based on literature review except for a few Ethiopian cases that are based on primary data. Various theoretical and empirical discussions about contract farming in different parts of the world are explored to present ‘best practices’ and replicable examples that are believed to be potential solutions to contract farming in the Ethiopian sesame value chain. However, this has to be seen in the light of the lack of information that exists on existing contract farming practices, institutional arrangements and participation of other organizations in Ethiopia. Contract farming in sesame is, at the moment, almost non-existent in Ethiopia.

We first discuss in Chapter 2 the types and the potential role of contract farming as an institutional arrangement to tackle some of the major problems in agriculture sector in general and Ethiopian sesame value chain in particular. This chapter includes a discussion on how transaction risks can be minimized by contract farming. Different models of contract farming are briefly discussed in chapter 3, including types of contract, the involvement of smallholders, enforcement mechanisms and pricing formulas. Chapter 4 provides a few useful examples of contract farming elsewhere (Vietnam, Guatemala and Zimbabwe), while chapter 5 presents examples of contract farming in Ethiopia. Chapter 6 concludes with a few suggestions.

2 Contract farming as an institutional arrangement

The ever-increasing market liberalization, globalization, the shift in consumer tastes and the change in the role of government towards more market-based solutions are some of the major driving forces in changing patterns of agricultural production, which in turn strengthen the importance of vertical coordination and institutional roles. The more quality and timing are important factors, the more specific institutional arrangements become necessary to respond to the demand as efficiently as possible.

The current sesame trade is mainly done by trading in spot (open) markets which entails high transaction risks and costs arising from uncertainty of quality, quantity and price. Spot markets refer to a large number of buyers and sellers which meet at a certain time and place with imperfect information about product quality, quantity and price, which gives rise to opportunistic behaviour (Williamson, et al., 2004). In the case of contract farming, these market imperfections can significantly be reduced (Minot, 1986). Contract farming is a form of vertical coordination which lies between spot market and full vertical integration. The latter refers to a situation where backward and forward activities are combined and decisions are taken by one and the same company/individual.

Singh (2002:1621) defines contract farming as '*a system for the production and supply of agricultural produce under forward contracts, the essence of such contracts being a commitment to provide an agricultural commodity of a type, at a time and a price, and in the quantity required by a known buyer*'. Such contracts can be either written or verbal, specifying the production or marketing conditions. On the one hand, contract farming allows agribusinesses a certain degree of control over production and marketing without owning a farm which gives them the opportunity to ensure the availability of supply at required quality, quantity and time. On the other hand, the contract can solve the critical problem of farmers—especially smallholders—to access inputs, credits and extension services. Therefore, thanks to contract farming both parties can fulfil requirements while minimising transaction risks and costs.

Contract farming however, is also being viewed in a negative light. Some regard it as a means of exploitation of farmers by agribusinesses due to unequal power relations. Others consider it as a threat for food security as well as a cause of environmental degradation because through contract farming the cultivation of cash crops with high use of chemicals is promoted (Centad, 2007, Singh, 2002).

However, contract farming has been widely practiced in many countries as its benefits outweigh the negative effects. Contract farming has a long history in developed countries and is continuously gaining prominence in developing countries as well. Besides the above mentioned potential of contract farming to respond to market imperfections, it has been induced by development organizations (NGOs) as a pro-poor and effective mechanism for rural development. Besides, governments are increasingly emphasizing it in their policies for similar reasons: promoting commercialization of smallholders and overall agriculture production. In Latin America, contract farming gained high recognition during the import-substitution industrialization phase as a mechanism to organize sustainable supply of raw materials. Currently, this practice is continuously being scaled up (Runsten and Key, 1996). Similar developments are occurring in Asia and Africa mainly with export products such as horticulture, tree crops and poultry. Various

kinds of contracts have been implemented based on the type of product, its market and the local socio-economic and political context.

Contract farming can range from a simple verbal agreement on amounts to be delivered up to detailed written agreements that include quality, quantity, timing, input specification, method of delivery, price formula, payment method and so on. However, experiences of several countries indicate that using a contract is not always successful. It can fail due to one or many reasons: the very nature of the contract itself, being prone to manipulation; absence of mutual commitment between contract parties; absence of effective enforcement mechanisms; the use of a 'one size fits all' approach; lack of government support; or simply just by bad luck like a natural calamity (see Box 1).

Box 1: Contract failure in Vietnam

The contract between a rice cooperative and Tien Gieng Food Company in Vietnam failed due to the unfair contract. The company specified its quality standard without discussing it with the farmers. As a result, it turned out that the farmers couldn't meet the standard with existing capacity and knowledge. Unfortunately, the company did not provide technical support to deal with the problem which finally led to contract failure

(M4P, 2007).

2.1 Transaction risks/costs and contract farming

A large body of literature has shown that contract farming can be an effective institutional arrangement to minimize transaction risks and the associated costs. Transaction costs are simply defined as costs incurred before and after the transaction when a firm is engaged in an exchange process (Da Silva, 2005). Any transaction has search costs that incur due to finding the appropriate supply with the right quality, quantity at the required time and contracting costs after getting the right supplier. Moreover, every transaction comes with costs for negotiation and agreement and monitoring and enforcement costs incur to make sure the transaction is enforced as agreed. Those transaction costs exacerbate by transaction risks.

As is discussed by different authors (Meijerink, et al., 2008, Simmons, 2003), transaction risks emanate from different factors such as a) asset specificity, b) uncertainty (opportunism and bounded rationality), c) performance and d) coordination (Masten, 2000, Williamson, et al., 2004).

- a) *Asset specificity* refers to the investment (sunk cost) made by the farmer and/or buyer specific to a certain transaction which cannot be transferable to alternative uses and only tied to specific activities. As a result, their bargaining power is reduced. The higher the degree in asset specificity, the more the interest to enter into contract to protect those assets as well as to avoid exploitation and opportunistic behaviour.
- b) *Uncertainty* arises due to various uncontrollable factors: acts of nature, change in technology and consumer taste. Behavioural uncertainty mainly manifests itself in spot markets where commitment and enforcement is absent, market participants can show opportunistic behaviour by distorting information, cheating on quality standards and so on. Next to that, price uncertainty is one of the major risks for crops whose price is determined on the international market. Furthermore, uncertainty can be compounded by

'bounded rationality'² which in turn increases the costs of searching, screening, negotiation and monitoring.

- c) *Performance* measuring: some product quality cannot be assessed immediately, It requires for instance laboratory and testing procedures, thus raising costs. It leaves room for opportunistic behaviour because some parties have information on the quality of a product that another party does not have, or can only obtain by making (costly) investments.
- d) *Coordination* due to the fact that transactions are connected to each other, the failure of one leads to a failure in another. For instance, farmers need to obtain the right quality and quantity of inputs at a right time first in order to produce and deliver as required.

Different products in different contexts can entail one or more of the above transaction risks. In the absence of those transaction risks, one may not opt for contract farming. Rather, it might be efficient then, to procure on spot market.

² This means that market participants cannot have or process all the information available to them. In other words, market participants are not 'all knowing'

3 Transaction risks and costs in sesame trade in Ethiopia

In contract farming, parties may face various transaction risks. We use the framework discussed in Meijerink (2010 (forthcoming))

3.1 Technical aspects of transaction risks

Asset specificity. Asset specificity can play a role for sesame production when there are specific production requirements, such as for organic production. This creates dependency between the producer and buyer. On the one hand, the producer depends on the buyer to pay a premium price of organic sesame that she will probably not get when she sells the sesame in the spot markets. On the other hand, the buyer depends on the producer to supply sesame that fulfils the requirements of organic produce, because the buyer cannot buy this from an alternative source (such as spot markets). This dependency usually makes (formal) agreements necessary, which is the case in contract farming.

This dependency manifests itself in side-selling, which is often cited as one of the main problems of contract farming, whereby farmers sell to other buyers who offer a higher price. Contract enforcement is necessary to reduce this risk, but may entail high transaction costs.

Frequency. Sesame is produced only once a year, which means that buyers and sellers do not meet regularly (e.g. every week) throughout the year, but only in the period after harvests. This can impede relationship-building and creating trust, which both need time.

Uncertainty. The climate conditions in Ethiopia can be harsh (long periods of drought), increasing uncertainty. This will make concluding agreements or contracts difficult because renegotiating and adaptation might be required when unforeseen events emerge.

Sesame prices have also been rather volatile in the past 2 years, which poses a transaction risk to farmers when they want to sell their produce after harvest. Contract farming may be a way to offer more stable prices to producers, but this requires a good pricing system that reduces price risk for both producers and buyers (see Pricing mechanisms on page 17).

Performance measurement. The extent to which measurement of certain sesame traits poses a transaction risk, depends on the buyers' requirements and the type of sesame. The requirements may differ per buyer. In some cases there may be very stringent requirements, such as Globalgap, which involve close monitoring of the production process, in other cases quality can be assessed fairly easy by inspecting the produce. There are different types of sesame. The Humera (white) type, for instance, is mostly used for decoration and measuring oilcontent is less important than for the Wellega (brown) type which is mostly used for oil. Measuring oilcontent requires testing and thus involves higher costs.

The higher the requirements and the higher the costs of measuring certain traits, the higher the transaction risks are. These may be decreased in a contract farming setting (as compared to for instance spot markets). The Ethiopian Commodity Exchange (ECX) reduces part of transaction

risks by measuring quality and offering standard contracts for several quality grades. However, contract farming is probably better suited to when the buyer has specific requirements such as GlobalGap or organic farming because the monitoring needs to be organised, e.g. through a tracking and tracing system (see van den Mheen-Sluijer, 2010).

Coordination requirements. Although sesame production in Ethiopia is relatively extensive with respect to inputs, (mechanised) labour input is crucial at harvesting time. In Humera tractors are used and the availability is often a bottleneck, as is labour in Humera and other regions.

If such key inputs are not available, it may increase the risk of harvest failure (in terms of quantity or quality). Contract farming may solve this transaction risk by contracts that include the provision of inputs by the buyer.

3.2 Contractual aspects of transaction risks

These are based on the phases of achieving an exchange. Three phases are usually distinguished, before an exchange, during the exchange and after the exchange, also called "contact, contract and control.

Contact. Before an exchange can be made, market participants need collect information and search for trading partners and produce to reduce transaction risks such as trading with unreliable partners, trading at too low or too high prices (depending on whether one is selling or buying), buying or selling wrong quantities (getting stuck with unsold inventories) etc.

Contract farming can significantly reduce these costs and may be one of the more important reasons for buyers and producers to choose contract farming.

Contract. During an exchange the terms of the agreement need to be specified and negotiated to reduce the risk that both parties do not get what they wanted out the exchange. The quantity, quality, price, payment, timing of the produce exchanged must all be clarified and agreed on. In order to reduce transaction risks, usually costs related to time and expenses are put into the negotiation with the other contract party.

In contract farming there will be high initial costs when a contract is drawn up. But afterwards, the risks and associated costs will be significantly reduced. Only when one of the parties feel the need to renegotiate the contract, the costs can go up again.

Control. This phase consists basically of verifying whether the exchange has been fulfilled according the negotiated agreement to reduce the risk of buying the proverbial "pig in a poke" or a lemon, not being paid (in time) etc.

This is linked with "performance measurement". We already identified that when there are several requirements linked to a production process, contract farming is a very suitable institutional arrangement. Within a contract farming arrangement, a monitoring system can be set up to verify whether production practices adhere to specific requirements.

4 Models of contract farming

Eaton and Shepherd (2001) identified five types of contract farming models and these were further discussed by Bijman (2008):

- i) The *Centralized model* in which an agribusiness (processor and/or exporter) buys from a large number of smallholders under strict quality control and predetermined quantity. The involvement of the agribusiness can vary from mere provision of seeds up to providing different services and technologies at various stages. Nevertheless, the model mostly follows a production-management specification contract which is characterized by extensive technical support, inputs provision and close control of the production process. In the centralized model of tobacco production in Lao Cai province of Vietnam, the agribusiness (Le Minh Company) provides all the necessary inputs, fertilizers and chemicals. It also organizes continuous training for the farmers to enable them produce under the contract specifications. In addition, the tobacco company sets the price after discussion with farmer representatives (M4P, 2007).

Similarly, Hortico Agrisystems of Zimbabwe has been operating successfully in a centralized model. It entered into contracts with smallholders to produce various types of healthy and safe vegetables for the international market. Hortico prefers to deal with individual farmers instead of groups in order to maximize compliance and minimize performance risks. Hortico provides all inputs on credit and pesticides are applied by its own personnel. Besides delivering guidelines on the production process, the company provides training, technical advice and transport. Due to the fact that the contract parties have mutual respect and trust, side-marketing and strategic default is rarely encountered. The good communication between them also facilitated close monitoring (Woodend, 2003). Prices are predetermined and adjusted, if necessary, according to the price realized on the international market. However, the study does not present details on how prices are determined and adjustments done.

- ii) The *Nucleus estate* model is a variation of the centralized model where an agribusiness owns the plantation besides contracting with independent farmers.
- iii) *Multipartite models* involve various actors like government, NGOs and service providers. It usually also involves dealing with farmers' organizations like cooperatives as well as joint ventures between government and the private sector. According to case studies in Vietnam (M4P, 2007), this model fits the poor and smallholders best as the integrated effort of many actors reduces the burden of contracting parties. For instance, the Vietnamese cases are mostly characterized by agribusinesses providing the necessary inputs, local governments providing extension services, disseminating information, facilitating the formation of farmers' cooperatives and creating awareness about contract farming among farmers. As a result, besides minimizing the cost of providing extension and other services, agribusinesses are able to increase efficiency by using farmers' groups to deliver inputs as well as to ensure the application of technical standards. In addition, the third party (NGO or government) in the multipartite model can play an important role in dispute resolution and contract enforcement.

- iv) The *Informal model* is usually characterized by individual entrepreneurs and/or small companies with informal contracts, usually on a seasonal basis. Unlike the above models, this model has limited resources for strong vertical coordination so that its success usually depends on the support provided by the government or other service providers. In this model material and technical input provision is commonly limited to seeds and basic fertilizers, grading and quality control.

This model may also include trader-farmer arrangements whereby the trader buys up (part of) the farmers' harvest before the actual harvest has taken place. This arrangement comes down to the trader providing credit to the farmer with the farmer repaying the credit in crops harvested. The interest rate of this credit is included in the price that is agreed on. This price is therefore usually substantially lower than the market price.

- v) As the name indicates, the *Intermediary model* involves intermediaries between producers and buyers who subcontract buyers. In this model, because of the absence of strong linkages with farmers, buyers run the risk of losing control over quality, quantity and price. For similar reasons, farmers within this intermediary model hardly avoid market uncertainties.

4.1 Types of contracts

The contract farming models discussed above operate under different arrangements of contract types which are not mutually exclusive. Scholars (Bijman, 2008, Eaton and Shepherd, 2001, Key and Runsten, 1999) have distinguished 3 types of widely-used contracts: market specification contracts, resource providing contracts and production management contracts.

- i) *Market specification* contracts usually specify quality, price and timing with minimal or non-provision of inputs. Producers are in charge of most of the decisions to be made in production. As a result, they bear most of the risk. However, it brings significant benefits for both contracting parties by allowing market information flows between them. On the one hand, these contracts provide the producer demand-side information related to consumers' taste, crop variety, quality, quantity, timing and price. On the other hand, the buyer will be able to access information related to supply conditions. Such contracts are mostly used in informal models of contract farming.
- ii) *Resource specification contracts* usually specify that buyers will provide inputs and extension services at various stages of production to producers on credit. The inputs and extension services will have to be paid for when the crops are sold. The contract might give a certain degree of decision-making power to each party at different stages, and the risks are also allocated accordingly. For farmers, this type of contract reduces the risk of coordination because inputs, credit and extension services are provided for. In turn, the buyer profits from lower selling prices, and reliable supplies of required quality and quantity at the right time. This kind of contract is generally used by well-established entrepreneurs in informal and centralized models of contract farming. Timely delivery of inputs and services is a key to success.
- iii) *Production-management contracts* involve higher levels of coordination than the other two types of contracts and the buyer makes decision over production and harvest. In this

contract, the buyer provides technological guidelines on the production process. Equally, the buyer assumes most of the risk. However, in practice things often work out differently. An example is given in box

Box 2: Production management contract in Karnataka

Gherkin (*cucumis anguria*) is small cucumber and exported mainly to Europe, North America and Australia. The exporters produce and process gherkins on a custom basis, and have no brand of their own. After export orders have been secured, the processors organise production on individual farms on a contract basis. Processing is done according to the specifications of the importers.

The exporters supply good quality seed, fertiliser and plant protection chemicals. The farmers are responsible for sowing, harvesting and grading according to the technical specification of the company. The quality of the produce to be supplied, the rates for different grades, the payment schedule and the method of payment are mentioned in the contract.

However, several clauses in the contract favour the processor:

- i) the production risk remained with the farmer. If the crop failed due to any natural calamity or due to pest and diseases, the entire loss is borne by the farmer.
- ii) the processor retained the right to change prices according to the fluctuations in the international market with prior intimation to the farmers.

Despite these risks for the producer, it is reported that farmers were by and large satisfied with the arrangement. Gherkin production is more remunerative than the competing crops and provides a steady income throughout the year

(Chand, 2005)

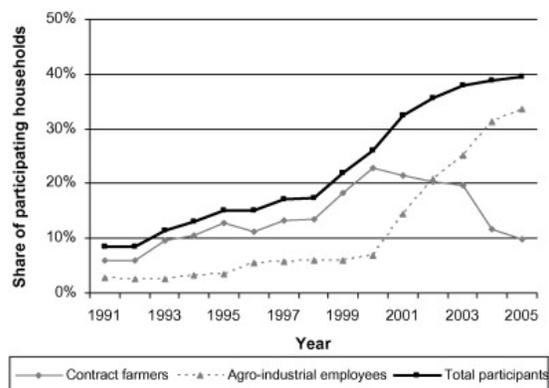
Contract terms differ, based on the local context, the type of the product and the problem faced. Yet, to optimize the benefits of any type of contract it is important to articulate the implications of revenues, costs and risks for both parties involved, to prepare clear and detailed contracts with enforcement mechanisms, and, last but not least, to develop mutual commitment of both parties.

4.2 Contract farming and smallholders

Whether contract farming benefits smallholders is not clear. On the one hand, contract farming is considered as a favourable institutional arrangement with a large potential to commercialize smallholders and integrate them in the global market. On the other hand, it is criticized for excluding smallholders from the trader chain by diverting opportunities to large-scale farmers and leaving smallholders poorer than ever. The latter happens because agribusinesses prefer to deal with well-established large-scale farmers who will have better capacities to deliver the output at required specifications.

This is illustrated by Maertens & Swinnen (2006) in a study on contract farming in French bean (Figure 1). The figure shows an initial increase in participation of contract farmers until around 2000, after which the share of contract farmers dropped in favour of the share of people working as employees in the French bean export agro-business.

Figure 1: Household participation in French bean export production 1991-2005



(Maertens and Swinnen, 2009)

However, examples of agri-business preferring to work with small-holders also exists. ALCOSA (a processing and exporting company in Guatemala) discovered it could not fulfil its quality and quantity requirements by contracting large-scale farmers and contract smallholders instead, who were able to meet the standards of the company (Glover and Kusterer, 1990).

When dealing with smallholders, agribusinesses usually deal with groups of smallholders in order to increase efficiency. Cooperatives of smallholders assume the responsibility of distributing the necessary inputs and facilitating the provision of extension services. Also, they ensure the follow-up on quality and other specifications which otherwise would be the responsibilities of the agribusinesses concerned (see section 5.2 on page 20).

Because smallholders usually have access to (free) family labour, production costs are usually lower than with large-scale farmers who incur considerable cost in hiring labour. The more labour-intensive production may also lead to higher quality produce. See for instance, gherkin exporters in Karnataka (see Box 2). A similar experience was noted in Zimbabwe, where Hortico Export Company chose to work with smallholders to satisfy compliance of quality and other requirements. Hortico provided all the necessary inputs and closely monitored the producers (Woodend, 2003); see also section 5.3 on page 21.

Besides these motives, agribusinesses might have others to engage smallholders, such as obtaining the support of NGOs or government that promote smallholders commercialization and rural development.

The experiences summarized above show that operating under contract farming can help both buyers and producers to minimize coordination risks, in particular when the contract includes provision of inputs and technical and other services at the right time. Some processors/exporters also enjoyed the reduced risk of asset specificity. Market uncertainty is notably reduced for the farmers involved, while the agribusinesses are relieved from the high transaction cost that can be incurred due to unreliable supply and opportunism.

4.3 Enforcement mechanisms

Contracts specify responsibilities and obligations of each party. Also, contracts describe how to deal with default. In this respect, the content of contract may vary based on the context and the type of contract. Enforceability is one of the keys to success of contract farming. It is therefore crucial to incorporate dispute resolution and enforcement mechanisms. Besides specifying contract elements in a clear and understandable language, it is important to engage in sufficient communication between parties. Contract enforcement is greatly facilitated when efficient and effective the legal systems exist.

In the absence of mutual commitment, default may occur on both sides. Default may stem from unintentional failures, such as production failure. However, default may also stem from opportunistic behaviour such as the producer selling output to other buyers, thus avoiding repayment of loans extended by the buyer, or taking advantage of high prices at the spot market. Besides, farmers may default to deliver because they use the provided inputs to other crops.

Despite this, several experiences show that smallholders organized in groups do tend to honour contracts by creating their own rules and regulations to satisfy the demand of the market. These groups usually comprise of well-to-do farmers that can take higher risks than poor smallholders. They are also less tempted by making a (small) short-term profit and taking advantage of higher prices in the spot market.

In the case of agribusinesses, they may also default, for instance by not providing input timely or by refusing to buy outputs with the pretext of quality problems. However, according to Coulter et al (1999) the competitive output market may serve as an incentive to agribusinesses to honour their contracts.

In many developing countries, legal systems lack the efficiency to serve as a cheap, timely and effective enforcement mechanisms. This means that contracting parties need to devise alternative mechanisms (Coulter, et al., 1999):

- *Lending via groups* has the potential of reducing default as well as transaction cost. In this case, the group takes joint responsibility for the default of a single member. As a result the group serves as a guarantee for the agribusiness as the members check on each other to avoid default. Zimbabwean cotton company (Cottco) is good example of group lending (see 5.3). Moreover, contracting with a group is a cost-effective way to deliver inputs and services as well as in terms of administration. It is noteworthy that forming group may also increase the bargaining power of the smallholders.
- *Good communication with and close monitoring of farmers* avoids many potential problems. Good communication and monitoring leads to trustful long-term relationships and avoids 'strategic' defaults.
- *The range and quality of service offered* may affect the long-term trust relationship between farmer and agribusiness. If the agribusiness is committed to deliver broad range and good quality of services at a right time and quantity, the farmer will put his/her in the long-term contract farming relationship and choose less to default for short-term gains.
- *Incentives for performance and strict treatment of defaulters* help to minimize default. Penalties for default may include exclusion from a contract or publishing names of defaulters in the locality.
- *Cooperation between buyers* can be achieved through agreement among buyers not to buy from farmers who are producing under another contract. The experience in Ugandan cotton sector is also good replicable example, disseminating information among buyers (via their association) about the defaulter (see Box 3).

Box 3: Cooperation between buyers in the cotton industry in Uganda

Ginners in Uganda were faced with the problem of inferior cotton being sold by non-contractual sources. At the same time, prime quality produce was being siphoned off to the open market for higher prices. The managers of the processing companies admitted that they had lost control of the buying operation. To stop the practices, it was agreed to include clauses in contracts that stipulated the designated origin of the contracted crop. However, this may be difficult to apply in the case of the informal individual developer who is buying crops from farmers over a wide area where it is virtually impossible to enforce agreements. In Uganda, cotton ginners faced with this problem established the Uganda Ginners and Exporters Association, which placed monitors at each ginnery in an attempt to control extra-contractual sales that would lower quality standards.

(Eaton and Shepherd, 2001)

Experiences in different countries prove the importance of including an independent third party to resolve conflicts between the contract parties. The third party can act as an arbiter during defaults or during other deviations from the contract. For example, in Vietnam contract farming of tobacco, the Commune People Committee was formed as independent third party that worked for the benefit of both sides. It approved prices to ensure that farmers obtain fair prices and to raise their bargaining power. It arbitrates during disputes (M4P, 2007), see also 5.1.

4.4 Pricing mechanisms

Transparent pricing mechanisms contribute to the success of contract farming and, ultimately, reduce defaults. Transparency can be achieved only by enhancing active participation of all actors (contracting parties) in the process of pricing. The availability of market information to both parties enhances a fair negotiation process.

There are different kinds of pricing formulas that can be used in contracts. These can either be based on the type of the product or the market conditions. Eaton and Shepherd (2001) distinguish the following :

- *Fixed prices.* This mechanism offers farmers a fixed price at the beginning of each season and these usually relate to grade specification. The fixed price structure is widely used by tobacco corporations and companies processing crops for canning.
- *Flexible prices.* In this case prices are calculated based on the mechanism that considers the possible changes in local and international markets. Farmers are paid based on a formula that considers agreed processing and other costs of the agribusiness as well as the international market prices over a particular period. International market information on price and grades should be available to farmers. An arbitration mechanism is necessary in fluctuating markets. This form of pricing is common in, for example, the sugar industry where the final price to the farmer is known only after the processed sugar has been sold.

- *Price calculated on spot-market values.* This is a very complex process because it may be difficult to agree on what constitutes a spot-market price. Prices in spot markets typically tend to fluctuate daily.
- *Price on consignment basis.* Prices calculated after the produce has been marketed and sold may be considered another form of spot-market pricing, but this form of payment is normally termed 'on consignment'. Consignment pricing arrangements are rarely found in well-structured contract farming projects.
- *Split pricing* In this mechanism an agreed floor price is paid at the time of purchase or at the end of the harvest season. The final price is calculated after the agribusiness sold the produce. It may involve a premium if this price was higher than the floor price.

As prices of agriculture commodities fluctuate highly, developing price-risk managing mechanisms is often warranted. In developed countries, this risk is often managed by using crop insurance, accessing loans to smoothen income over time, by diversifying income sources like off farm jobs and most importantly by getting subsidies. Unfortunately, most of those mechanisms are not available in poor countries.

5 Contract farming practices with replicable potential in Ethiopian sesame value chain

As discussed above, contract farming has great potential to solve problems faced by both parties (smallholders and exporters) in Ethiopian sesame value chain. However, the suitable contract has to be designed carefully based on the contextual factors and by considering the existing support institutions. Experiences of different countries that could be replicable in Ethiopia will be discussed below; however, it is important to mention the limitation of this study to select the most appropriate experiences because of the insufficient information about the context of Ethiopia.

5.1 Vietnam

M4P³ has conducted a broad survey on contract farming in different provinces of Vietnam. Among the 30 contract farming cases, we have chosen the multipartite model to discuss here. In this model, agribusinesses, farmers' cooperatives and the government participate. Especially the government of Vietnam has devoted its extension centres and technical advice to support the success of contract farming. It also has provided inputs at the infant stage of the cooperatives and has created awareness among farmers about contract farming. Agribusinesses do the monitoring and supervision of the production process. In the multipartite model that is used in Vietnam, agribusinesses often provide inputs on credit via cooperatives for perennial crops while for annual crops either the agribusiness or the cooperative provides input on credit to farmers.

Tan phu Trung cooperative entered into contract with Metro to deliver the produce at required specification in the contract while Metro provided technical training for the first year and then techniques on pre-processing, packing and conserving the products. Initially, members of the cooperative also received support from government extension centres in terms of inputs and technical training to produce vegetables with a high food-safety standard. As a result, the cooperative members developed the knowledge to satisfy demand coming from supermarkets such as Metro. Gradually the cooperative took over the responsibility of providing seeds and fertilizers, as well as collecting produce and selling it to Metro.

The conditions of the contract—price plus place of delivery—are discussed annually and negotiated with member farmers before the Tan phu Trung cooperative signs the contract. Every year, before the beginning of vegetable season, the cooperative organizes a meeting with its members to discuss the production plan and type of vegetable. Then, each member makes his/her own plan in accordance with the requirements. If there is any change of plan, the cooperative immediately communicates with its members.

There are different ways of setting the price. In the case of contract between Metro and Tan phu Trung cooperative, Metro sets price following the common market price and adjusted every month to accommodate seasonal change on product and input price. However, in the multipartite model case of another province, the price is set differently. Here the agribusiness sets a floor

³ Making Markets Work Better for the Poor – see also <http://www.markets4poor.org/>. This section is based on M4P M4P. "30 cases of contract farming: An analytical overview." Asian Development Bank.

price for procurement of perennial crops, fixing the actual purchasing price each year. For annual crops the contract price is often higher than spot market price in order to avoid side-selling.

Tan phu Trung cooperative has good management capacity and negotiation skills. The cooperative plays an important role in for instance organizing production to meet the requirements and hiring professionals from the Department of Plant Protection to check quality whenever necessary. In case of high price fluctuations, the supermarket occasionally has tried to impose low prices, however, thanks to the cooperative's negotiation skills, it adjusted the price upwards.

The farmers now enjoy a stable market outlet which also guarantees a stable income so that they can plan their production and livelihood. Because of this, farmers remain committed to their contract even during times of higher prices on the spot market. Similarly, the supermarket is able to satisfy the demand for vegetables that meet high food-safety standards with reliable supply.

Despite these successes, the cooperative and its members face considerable challenges. The purchasing capacity of Metro has remained limited while the production capacity of the farmers has increased, which in turn has forced them to sell the remaining products in spot market at lower prices.

Application to the Ethiopian setting

The sesame value chain in Ethiopia can replicate the contract farming experience of Tan phu Trung cooperative and Metro supermarket. Some of the requirements for success already exist in Ethiopia. For instance, like the Vietnamese government, the Ethiopian government has a strong interest to promote the pro-poor development of the sector. It can therefore play a important role in providing required inputs, extension services as well as creating awareness about contract farming in collaboration with cooperatives.

Similarly, operating in a cooperative structure is common practice in Ethiopia and usually the government provides inputs on credit to cooperatives or via cooperative unions. However, in some cases involvement of Ethiopian government is seen as undesirable because it hampers the autonomy of cooperatives and members. The Ethiopian government can have a positive influence if it concentrates its engagement to facilitating and creating an enabling environment without ignoring its important role in providing access to inputs and credits.

5.2 Guatemala

Experience from the other part of the world demonstrates the success of a similar multipartite contracts farming practice that includes a cooperative, an agribusiness and a foreign NGO.

As discussed by (Glover and Kusterer, 1990) the Guatemalan ALCOSA frozen vegetable processor and exporter company operates contract farming with farmers in different regions. The company has entered in different kinds of contract based depending on the situation on the ground. For instance, in Chimachoy area the company has entered in a contract with individual farmers because there were no cooperatives to work with and because there was a lack of trust within the community to work together.

By contrast, in Santiago Sacatapequez, the company has used the opportunity of existing intermediaries such as an NGO called Swiss Group, which is working in cooperation with agriculture research institutes and farmers' cooperatives. The research provided by the government research institute and the recommendations of the Swiss Group served as a basis for improved cultivation practices in the region. ALCOSA therefore did not need to incur any additional costs of sending its agronomist to assist farmers. Besides, the cooperative in Santiago Sacatapequez elected a person for product classification and weight whose salary cost is shared by ALCOSA and the cooperative. Both parties are committed to the contract and developed trust which is fundamental for the establishment of a long term relationship. Whenever the ALCOSA encountered problems, they can discuss these with the leaders of the cooperative and their Swiss Group advisor.

The cooperative in Santiago Sacatapequez is committed to both serve its members and to commit to its obligations under the contract. It provides inputs on credit and searches for new markets. The initial agreement between the cooperative and the ALOCSA company restricted the purchase of the company only from the cooperative which played important role in the growth of membership of the cooperative. This enabled the cooperative to increase its income and hire professional staff. The company also has been able to cut cost by using its warehouse as a selling station and its truck to transport the product.

Application to the Ethiopian setting

This successful experience can be replicated in the Ethiopian sesame value chain as many NGOs work in value chain development in the country. It can be assumed that NGOs like ICCO and SNV can play an important role in capacity building of cooperatives of sesame producers while government and research institutes can provide quality seeds and other inputs.

The initiative of Debre Zeit Research Centre (DZRC) to improve Ethiopian durum production and commercialization can serve as an example of the positive role of government research institutes. The multi-disciplinary core team that was established consists of stakeholders such as the Bureau of Agriculture and Rural Development, wereda administration, cooperatives, private sector manufacturers and processors. Each stakeholder has been given its own task. For instance, after DZRC released good quality seeds, durum wheat researchers provided recommendations and guidelines to farmers; hands-on training was given to all participating farmers and to wereda development agents by DZRC multi-disciplinary team of researchers and by quality specialists from Kaliti Food Complex S.C (Assefa, et al., Unpublished paper).

5.3 Zimbabwe

5.3.1 Cottco

In Zimbabwe, several types of contract farming schemes exist for different products (tea, cotton and horticultural products). Regardless of certain differences, most of the schemes that are discussed by Woodend (2003) are essentially similar in providing inputs on credit which is deducted from the final payment during delivery of the commodity.

Cottco (Cotton Company of Zimbabwe) is one of the biggest cotton exporter of the country. It has engaged in contract farming with smallholders using the centralized model. It has assisted smallholders to organize into groups for the purpose of management, monitoring and ensuring compliance. The company has addressed coordination risk by providing the necessary inputs (seeds, fertilizer, chemicals, sprayers, picking bags, cotton bales) on credit. The amount of inputs

was based on previous production history of the smallholder. It also provides tillage and transport services. The contract specifies the credit limit of each farmer and the amount of cotton to be delivered.

Cottco uses an extensive network of loan and extension officers, not only to provide technical advice and extension services but also to closely monitor farmers and coordinate crop collection. The company is continuously strengthening its relation with farmers and maintaining a detailed database on all its contracted producers. As a result, Cottco was able to develop good communication with producers and minimize side selling.

It also uses a peer monitoring mechanism (producers monitoring each other) to ensure compliance and to enforce the terms of the contract. Farmers' groups are responsible for the repayment of loans by each member. If a member defaults or side sells, the whole group will be penalized and excluded from the scheme. Before using the current effective mechanism, Cottco used to seize the assets of the smallholders to enforce contracts but because this damaged the company's image it changed its policy. Cottco does not concentrate on imposing penalties only but also provides incentives for the highest quality cotton by giving supplementary payment and cash bonuses. An annual awarding system was also introduced.

Cottco and other cotton companies are closely working with the government and lobby to create better regulations. For instance, at the turn of the century, the government was working on a new framework to address two issues in the sector. The first one was to get buyers to adhere to a basic grading system in order to mitigate the quality risks like contamination with synthetic fibres. The second one was to reduce opportunistic behaviour of certain companies who purchase from farmers who were under contract with another company.

5.3.2 Irvine

Irvine is another agribusiness in Zimbabwe engaged in contract farming of broiler and grain production with individual farmers. Irvine needed a reliable supply of grains (maize, sorghum, soybeans and barley) to feed the chicks and maintain the broiler business. It uses a simple, written contract primarily specifying quality and delivery details. Similar to Cottco, Irvine also provides inputs on credit, transport and tillage services.

The contract has a special feature that promotes cooperation between smallholders, large scale farmers and the company itself. For instance, the company buys tillage and other services from the nearby located large scale farmers because the company believes that this is an effective way to put to use the knowledge, skills, capacity and goodwill of large scale commercial farming to the benefit of smallholders. Unfortunately, this system also excludes some smallholders as Irvine's field agents tend to select smallholders who have some collateral and located in close proximity with large scale commercial farmers. The company has maintained very close relations and good communication with farmers which has contributed to the success of the contract farming.

Although no detail information is given about the pricing mechanism of the Zimbabwean cases, in general, export companies are assumed to take into account the following issues when determining prices to be paid for smallholders: input cost, the cost of financing input procurement (interest rate), the exchange rate and existing financial regulations for exporters, transaction cost, the cost of providing technical and other support services. Payments are made either in cash or cheque after delivery of the commodity. In most cases, farmers seem to receive prices that are

related to international market. However, it is not clear how the price is determined. Farmers seem not to know how it works and seem to have little say in determining the price.

Application to the Ethiopian setting

The Ethiopian sesame sector can learn from the experience of the Zimbabwean cases. As discussed before, Ethiopian smallholders have quite some difficulties accessing the necessary inputs and technical and other supports. Without solving this problem or minimizing the coordination risk, any contract farming will hardly be successful, as the Zimbabwean experience shows. Hence—depending on the context—the agribusiness needs to devise appropriate mechanism of supplying inputs and support services to smallholders.

Ethiopian sesame exporters might have limited capacity to operate in a centralized model and provide the necessary inputs and services on their own. Therefore, as discussed in the previous cases, a multipartite model is more appealing as it incorporates government and NGOs. In addition, the case of Irvine in Zimbabwe illustrates another kind of collaboration: with large scale farmers. In the Ethiopian situation, cooperative unions and exporters' association can be potential partners in providing inputs and technical and other supports.

Sesame exporters can use their own association (EPOSPEA) to set a code of conduct in the sector that can be respected by at least its members. Such a code of conduct can address issues like quality standards, grading and an agreement to reduce side selling and so on⁴.

6 Contract farming experience in Ethiopia

Nijhof (2010) has made an inventory of 9 contract farming initiatives in Ethiopia that were ongoing in 2009 (Table 1), and we have added an additional one. Most of these are still in the initial phase. Contract farming is not yet well-established in Ethiopia, like in Kenya. We will highlight three initiatives.

Table 1: overview of contract farming in Ethiopia

	Company, sector	Description of CF involvement
1	Tradin (Selet), Organic sesame	The organic sesame seed company owns its own farm (now 300, later 600 ha.) and works with 1,500 farmers through a CF arrangement. 475 of these are currently certified (organic), another 1,000 must be ready by 2010.
2	AfricaJuice, Passion fruit juice	The Dutch-German passion fruit processing company aims for a business model of 50% own production and 50% CF. To this purpose it bought a 1,300 ha. ex-state farm that is expected to start growing passion fruit in 2012. The aim is to grow from 100 ha. CF in 2009 (although 50 ha. seems more realistic) to 700 ha. in 2012.
3	Tiret, Barley	After the government decided to focus on a number of cash crops, the investment company Tiret, owner of many companies among which a malt factory, decided to institutionalize geographic areas for, among other crops, barley production for its malt factory which supplies the Dashin Brewery. Goal is to increase production of barley and thereby lowering the

⁴ See Waarts Waarts, Y. "Evaluating the HCDA Code of Conduct of Kenya: transaction costs and risk." LEI Wageningen University and Research Centres. for a study on the Kenyan experience with using a code of conduct for the horticultural sector

		cost price. Imported barley is expensive, and yields per ha. in Europe are almost double of that in Ethiopia.
4	EHPEA, Vegetables	The Ethiopian Horticulture Producers Exporters Association has 90 members, of which 10 are fruit and vegetable producers and 80 produce flowers. In 1998 the association started to produce for the local and export markets with five farmers on its commercial farm and on the farmers' own land. Today it has 300 member farmers in CF arrangements, exporting 300,000 kg. of EurepGap certified vegetables per year. The plan is to work with 2,000 CF farmers in the near future.
5	Soreti International Trading, oil seeds and pulses	The oil seeds and pulses trading company started its own CF initiative in 2008. It works with 80 small farmers that produce different types of beans. Farmers have up to 1 ha. of land and jointly produce on 160 ha. First harvest of its CF arrangement is in 2009. The reason to initiate CF is that the company can not guarantee traceability of produce when it buys from the market. It sees the CF arrangement as having better control over a reliable source of supply, including the proper recording of produce.
6	Acos Trading Co., pulses	The pulses trading company has tried sourcing through CF for several years. The aim of the joint venture between Ethiopian and Italian investors was to penetrate the EU market with high quality produce. The company has its own processing plant. In the past the company was involved in CF arrangements through high value seed supply to farmers. Due to disappointing results the company stopped investing in these schemes.
7	Solagrow, Seed potatoes	The main driver of the Solagrow seed potato company is the development aspect. Its goal is to improve crop production in Ethiopia. To achieve this it will start by introducing new varieties, starting with potatoes. Over the past year the company built the required (laboratory testing) infrastructure and is ready to roll out through CF arrangements. Only since June 2009 it now sells seed potatoes (which are not yet certified) and the company is now ready to start with seed potato outgrow through CF arrangements. The company does not have a farm: 100% of the yield comes and will come from farmers.
8	EthioFlora, Horticulture	The operations of this company started in 2007 with export of green beans. The company's farm land became less fertile and expanding its own farm size was difficult. The company started CF to scale up its activities. The company is linked to the activities of EHPEA. In 2007-2008 CF production in one region included 100 irrigated farmers and in another region 209 farmers, totalling 63 tons of beans, of which 33 for export. In 2008 this was 344 tons of which 236 for export. In 2009 this will be even higher; but with only one exporter of the beans (EthioFlora) that requires 200 tons annually, additional exporters and/or additional produce must be considered. The EHPA pack house is used by EthioFlora for storage and packing of its beans. As it seems that this is the only client of the pack house, the facility is not being used and empty 8 months per year. Awareness among nearby farmers should be developed to use the facility for processing of produce (tomato, pepper) for the local market.
9	Assela Malt factory, Barley	The government-owned malt factory buys barley from roughly 10,000 farmers per district, or 80,000 farmers in total. They are spread over 8 districts and produce on average on 0.5 ha. each. The factory has no CF arrangement with these farmers but may consider CF as a mechanism to ensure improved quality of production. The company is close to entering CF arrangements to enhance its own seed production and multiplication program. It collaborates with Research Centres per district to produce own high quality seed. Multiplication through CF will be managed by the District Agricultural Office, that demonstrates and trains seed multiplication

		practices to contracted farmers. The company will implement multiplication CF in 36 new districts where it will start to operate, and where each farmer will receive 30 kg. of seed. With around 200 farmers per district, and 36 districts, there will be 7,200 farmers involved in the CF arrangement to produce high quality seed for the 80,000 farmers involved in growing barley.
10	Beza Mar: honey	A Beza Mar honey processor and exporter (Beza Mar Agro Ind. PLC) has reached an agreement with smallholders verbally to address the prevailing problems in getting reliable supply. The Beza Mar honey processing plant now works with over 1000 beekeepers. Beza Mar now organic honey from tropical forest area in bulk and in glass bottles (semi processed and fully processed). The honey is Organic certified.

Source: (Nijhoff, 2010) and own interviews with Beza Mar.

6.1 Ethioflora and Mekibatu union

The case of Ethiopian green beans production and marketing as discussed by KIT and IIRR (2008) is another example of how to incorporate smallholders in the chain and foster a partnership by using contract farming which embraces both the private sector and farmers' associations.

The export company Ethioflora that has been producing green beans for several years wanted to expand its supply to satisfy the demand in Europe. However, obtaining proper land in the right location was very difficult. It therefore opted for contract farming⁵ and involved the water users' association (whose members consisted mainly of farmers) around Lake Ziway. After many rounds of discussions and negotiations with the association, Ethioflora reached an agreement. The association itself nominated farmers who would participate in contract farming; the farmers would plant according to the schedule and guidelines of Ethioflora; the company would provide inputs (seed, fertilizer, pesticide, cash), technical advice on planting, caring for the crop and harvesting the beans. All the cost agreed to be deducted from the farmer's payment after delivery of the crop. After additional negotiation rounds, the two parties agreed on using predetermined prices.

Despite both parties were happy to continue the scheme, the growing number of interested farmers exceeded the capacity of the Ethioflora to provide the necessary inputs and technical supports which led to a halt in the scheme until a solution was found. The company discussed the problem with different stakeholders including the farmers as well as the Ministry of Agriculture.

The creation of Meki Batu cooperatives' union brought a remedy. The union was formed with the support and funds of Self Help Development International (an Irish NGO) and ICCO. The water users' association joined the cooperative, after which the cooperative filled the capacity gap of Ethioflora by taking over some of the services such as providing inputs, training, credit, market information. Currently, the two parties seem to operate and collaborate well. It is worth noting that the role of the NGOs is being continued in the form of capacity building and technical assistance on market access, infrastructure development, dissemination of farming technology, human resource development and finance.

⁵ Glover and Kusterer Glover, D., and K. Kusterer. *Small Farmers, Big Business: Contract Farming and Rural Development*. Macmillan international political economy series. Hampshire, UK: MacMillan Press, 1990. draw the distinction between contract farming for private schemes and outgrower schemes for those involving public enterprises or parastatals. Sometimes outgrower schemes also apply to the case in which a large farm (managed by the agribusiness firm) sources from small-scale farmers.

6.2 ACOS: haricot beans

CDI⁶ (Centre for Development Initiatives) has conducted a value chain study for haricot beans and which facilitated the contract arrangement between Agriculture Commodity Supply (ACOS) company and five farmers marketing organizations (FMOs). According to the information obtained, ACOS wanted to implement a pilot project to ensure reliable supply of haricot beans at required quality, quantity, place and schedule. The company required the presence of CDI during the contract phase to create and develop trust between the two contracting parties as the community is well acquainted with different activities of CDI in their region.

ACOS agreed to provide the most suitable, improved seed and technical training while the FMOs agreed to supply the produce at required specifications and to return the seed on the basis of a quintal (100 kg) plus 20 kg. ACOS has been paying farmers based on the prevailing market price and for those who supply the best quality, it pays a premium price. The FMOs have taken the responsibility of enforcing the contract.

The FMOs obtain the necessary inputs from their union after considerable effort of CDI to create such an arrangement. In this multipartite model contract, farmers have learned the importance of quality in order to get a high price. ACOS strictly controls quality and rejects any substandard produce. The company has also created awareness among the farmers about the requirements set by the international markets and competitions from other countries. Farmers have understood the competitive advantage of Ethiopia in terms of providing specific types of haricot beans earlier than other competing regions so that they can fetch high prices.

Unlike the previous experience of ACOS in another region, this pilot has turned out to be successful and farmers are providing the supply at required quality and are paid a fair price.

6.3 Beza Mar: honey

According to the primary data collected from SNV Ethiopia, the Beza Mar honey processor and exporter has reached an agreement with smallholders verbally to address the prevailing problems in getting reliable supply. Previously, smallholders were not concerned about the quality of their produce and they fully depended on traditional ways of bee keeping which requires very limited effort. In general, smallholders did not have any market problem thanks to the *tej* (traditional wine) producers who create enough demand for their low quality honey. As a result, Beza Mar was able to collect only 38% of the total production and incurs a huge costs to purify the product with still 30% of wastage. In order to address these problems, Beza Mar and SNV intervened in collaboration with other actors (wereda development agents, Holeta Bee Research Centre), which gave the verbal contract the feature of a multipartite model.

After the problems were identified and analyzed, selected actors (farmers with at least 5 bee colonies, wereda development agents, internal control staff etc) were trained. The training was meant to increase the productivity of the bee keepers and to enable Beza Mar to source its supply at required quantity and quality so that it can export to EU. Beza Mar established an out-growers network, a system that allows internal control and traceability. The out-growers received embedded services through close follow-up and technical assistance. The production manager of

⁶ This section is based on interviews held with CDI

the company spent several months supervising the production and establishing a traceability system with the help of a wereda development agent as well as internal control staff. Beza Mar ensures that the necessary follow-ups are done and corrective measures are taken.

Beza Mar has shown great dedication by actively participating in all interventions and by co-financing trainings. In order to strengthen their relationship with smallholders, the company also provided credit to farmers. The company introduced premium price for best quality supply which motivated farmers increase quality. Holeta Bee Research Centre provided effective local made bee hives called 'transitional hives' which made a large contribution for a low-cost improvement of quality.

The above combined efforts has led to success. Beza Mar has secured a reliable supply of table-grade honey and has reduced wastage from 30% to 3% while increasing its purchase of total production from 38% to 82%, as a result. This enabled Beza Mar to export to the EU for the first time.

7 Conclusion and Suggestion

Contract farming is acknowledged as one of the effective institutional arrangements to minimize transaction costs and risks. Apart from enhancing smallholders' commercialization, it can also serve as a means of developing partnership spirit between smallholders and the private sector as it is crucial to recognize smallholders as trading partners, beyond mere producers. Both contracting parties depend on each other and are equally required for the success of a contract.

The importance of choosing the right type of contract has been discussed. Products like horticulture require stringent contracts that detail high quality standards, grades which require close supervision and monitoring while other products like cotton require less strict contracts. However, any contract needs to detail the important clauses in an unambiguous language and during the process of contract design all contracting parties should be allowed to participate. Pricing mechanisms and enforcement mechanisms during default need to be clearly spelled out.

This report has discussed some successful cases of contract farming which can serve as examples for the Ethiopian sesame value chain. However, this report does not propose a 'one fits all' approach. The cases can be only relevant input when the contextual factors of Ethiopia are taken into account. It can also help to investigate the role of various actors such as the government and NGOs for developing successful contracts.

As mentioned before in this report, I assume that agribusinesses (exporters) in the Ethiopian sesame sector may not have sufficient capacity to implement a formal contract that can address the challenges of both poor farmers and exporters. For instance, a centralized or nucleus model of contract needs a strong financial as well as institutional capacity to enable provision of all required inputs on credit, extension and other services, to establish a dependable monitoring system and so on. Therefore I suggest that the sesame value chain can be pro-poor by implementing a multipartite contract model.

7.1 Possible task division

Different actors (exporters, farmers, government, NGOs, research institutions and others) can divide tasks but their efforts have to be well coordinated and integrated. It is probably most practical to divide tasks after analyzing existing institutions and discussing with stakeholders. However, I proposed a possible task division based on the desk survey and the apparent local conditions which might serve to trigger discussion.

Role of Ethiopian government and NGOs

As it has been presented in the discussion of various cases, the government's role in creating an enabling environment is crucial for the overall success. Next to that the government, together with NGOs, can use already existing institutional setups like the lower tiers of government or the structure of cooperative promotion centres to create awareness among farmers about contract farming and fostering partnership with agribusinesses. At the initial stage, the government may provide the necessary inputs on credit at the lowest price to subsidize the smallholders. The credit can be deducted from the final payment. Technical advice and other services also can be provided jointly by governmental institutions and NGOs. It is very important to setup coordinating

teams to bring all these efforts together and to ensure quality, quantity and timeliness of the inputs and services.

Role of cooperatives

Contracting with groups of smallholders or cooperatives can be more efficient than working with individual farmers. Cooperatives can serve as a communication channel as well as input distribution centres. Cooperative management can play an important role in follow-up and monitoring of performance and preventing side selling. Working in an cooperative can also benefit smallholders as it enhances their bargaining power and helps to organize joint actions. However, it is very important to ensure the autonomy of cooperatives to make their own decision without influence of the government. Cooperatives need to build their capacity and hire professionals with the assistance of NGOs and government.

Roles regarding enforcement mechanisms

Any type of contract should incorporate enforcement mechanisms that can be used when default occurs. Although enforcement mechanisms alone cannot guarantee success, it greatly contributes to reduction of defaults. Developing enforcement mechanisms has to take into account the contextual factors. For instance, in Ethiopia, using court as enforcement mechanism is inefficient as a court procedure is usually costly and time consuming. Devising private enforcement mechanisms may therefore be necessary.

Different enforcement mechanisms can be used. Contracting with a group and holding all members responsible for a single member default can be very effective in the case of small self-selected groups. In the case of a contract with a cooperative, the cooperative itself has to play an important role in collaboration with other actors to enforce the contract. For instance, establishing an arbitration committee that comprises of representatives of producers, exporters, government, NGO and community elders (lder, religious leader etc.) to enforce contracts as well as to serve as arbitration party in case of disputes. Penalties for default can include a financial penalty, exclusion from the cooperative or from the scheme, informing the community about the default etc. An arbitration committee has to be updated about the progress of the contract regularly so that it can ensure whether the agribusiness is complying to the contract and that producers are getting the necessary inputs and services on time.

Role of exporters and producers

Exporters and producers should establish a strong relationship through frequent communication to exchange information and to discuss challenges and progress. Exporters should be present during provision of inputs and services so that they can follow-up the process as well as strengthen their bond with producers. Besides, exporters have to establish their own way of monitoring performance, keeping databases about producers and rewarding best performance. On top of this, they can share information about the defaulters via their association.

7.2 Possible pricing mechanisms in the Ethiopian Sesame sector

An important issue is to develop an appropriate pricing mechanism. In this process, both contracting parties have to participate and the presence of an independent third party can ensure a fair negotiation process and agreement. It seems that flexible pricing is more appropriate for export products such as sesame; however, considering the limited market information and the

vulnerability of both smallholders and exporters, I suggest that using split pricing is a better mechanism.

In split pricing, contracting parties need to negotiate and set a floor price that is to be paid during purchase. For example, farmers could calculate their actual production cost and they can use their selling price experience in spot markets to bargain for a fair price. The next step is setting the tentative final price. Because the international price of sesame is volatile, it is difficult to predict the exact price, yet it is possible to set a tentative final price based on past experience. Then this tentative final price is subject to adjustment after the product is sold. Thus, a range of adjustment has to be decided on by both parties to accommodate the price change. Besides, the cooperation of exporters in revealing their selling price of the past few years is crucial to set a tentative final price and a range of adjustments.

Before developing a pricing mechanism, it is essential to agree which costs or what percentage of the production costs should be included in the floor price. Also it should be decided when the tentative final price should be adjusted up- or downwards. Making market information available to both parties can ease the price setting and adjusting process and helps to develop trust between smallholders and exporters.

It is worth mentioning that experience of other countries has shown that if it is about including the poor farmers in any value chain, providing subsidies is essential. Especially for export commodities with a volatile international market price, government and/or development agencies can provide funds that are released to support farmers during high fluctuation and bad harvest. Similarly, stabilization funds can be provided to exporters at the time of low international prices.

In general, a successful contract requires commitment and trust between contracting parties that can be built in the long term. This can be achieved by designing together clear and easily understandable contracts; through frequent communication; by providing good quality of inputs and services; and by creating access to market information. Engaging local experts to provide extension services or to implement a monitoring scheme can also contribute to the creation of successful long term relationships.

8 Appendix: Discussing contract farming during Learning Workshop Feb 2, 2009⁷

The discussion started on the topic of combining plantation, outgrowers and processing plant. This is called 'dragonhead' in China; the plantation and processing plant is the head and the outgrowers are the tail. There is a mutual interest of both parts in making contract farming work. Contract farming is solution to specific risks.

Passion fruit versus sesame

The Dutch company Africa Juice is trying to set up a passion fruit contract farming scheme with smallholders. This effort is supported by ICCO⁸. It was explained that there is both a technical and commercial side to this effort. The technical side makes it necessary for exporters to help smallholders implement practices to ensure quality and quantity and help note problems before they arise. The commercial makes it necessary for cooperatives in the outgrower program to have a budget to provide commercial capacity building for entrepreneurs. In this way there can be a constant improvement process: whatever is being done on the plantation (e.g. experiments) will be then disseminated to the outgrowers. It is easy to do for passion fruit because there is only one business. On the local market passion has little value thus side-selling is less of a problem. On the international market it has a very high value and market access that is created would not exist without a processing plant.

The importance of a premium price

It is clear that the case of passion fruit contract farming is very different from sesame contract farming because different types of risk are being addressed. One general lesson however is that buyers must pay a premium to farmers. Contract farming therefore, only makes sense when higher value products is involved. Contract farming with crops that are sold in local markets and for which a high value market does not exist makes no sense. Another lesson is that the goal of contract farming needs to be defined first. For instance, a certain level of quality can be assured through a contract.

The importance of building trust

The question was raised whether contract farming is suitable for sesame, linseed and other bulkproducts. In Zimbabwe contract farming does exist for bulkproducts such as cotton, grains and broilers. The situation there is more similar to sesame in Ethiopia: there are several buyers and a lot of side-selling. In Zimbabwe good relationships were developed to reduce side-selling. In the example of honey in Ethiopia, there were many buyers for low quality. In the honey case, a relationship was also established by showing the profits of quality (paying a higher price).

The problem of varying quantity and quality

In Ethiopia the quantity and quality of sesame differs from season to season – it is difficult to implement a contract in such a case. There are different modules that have been tried out elsewhere to solve such problems, e.g. haricot beans in the Rift valley in Kenya. In this case,

⁷ This is a reflection of the discussions that were held during the Learning Workshop Feb 2, 2009 which was part of the WUR-DGIS Programme VCD4PPD Ethiopia

⁸ See <http://www.icco.nl/delivery/main/en/project.phtml?p=en-project&project=494>

different actors were involved. There was technical assistance by district agricultural officers to achieve a certain level of quality and quantity.

In some cases the complete production can be lost, for instance when there are no rains, however, there are ways to deal with this, even if partly. The contract could include improved seeds or other services provided by exporters to minimize losses. But also cooperatives can play a role (e.g. in providing credit for input). Involving cooperatives in contract farming may be a good idea to solve certain problems but it must be kept in mind that transferring costs is not minimising. For the company costs may be reduced, but not for the other participants.

ECX

The ECX only takes into account fairly coarse quality grades for sesame (does not include source of origin). When the ECX was established and the grades were designed there was a huge debate: does the ECX facilitate trade of any quality or trade of international standards. The second option was decided upon by the policy makers. However, because of this, the ECX will not be able to take up the bulk of (low-quality) sesame trade, nor can it address the source of origin requirements demanded by international buyers.

Setting prices

The topic of how to establish prices was raised (and what was a 'fair price'). It is unclear from the example how prices were established and why it was mentioned that the prices offered to farmers were 'fair'. The equation presented in this report can be used: floor price with adjustments (agreed time period when prices will be reviewed and when increase price if necessary).

Experience in Ethiopia

The last part of the discussion was dedicated to the experiences of one of the participating exporters. He has experience with contract farming and underlined that there must be a clear advantage over a few years. There must also be a price advantage. Organic sesame which has a price premium might therefore be an appropriate crop for contract farming.

However, sesame production involves many farmers who cultivate small areas of sesame (around 5 ha) and who have low yields. A buyer will need to buy from many farmers therefore. This raises administrative (or transaction) costs. Many exporters envisage a large plantation to manage themselves with an outgrowers' scheme. One exporter however, was not positive about large plantations. He has been a producer of sesame and knows from experience that large farms require much supervision – especially close to harvest time when there are problems of shattering. Sesame production should really be left to small farms who can inspect their sesame crops daily.

However, he was not optimistic about contract farming either in the present context. It might be even easier to buy sesame from collectors with a certain fee. He raised the rhetorical question 'why go into a long commitment with farmers when there are so many farmers who are there to supply you?'

With Africa Juice, the contract farming scheme will use incentives rather than enforcement. The focus is on benefits and incentives instead of penalising. They are planning to reward and recognise performance in terms of quality and quantity but also in terms of taking advantage of technology. If farmers perform well the previous year, they will get into a higher technological and

higher yielding production process, by being supplied improved inputs. If a farmer misses a payment or default (s)he drop down one level or stays at the same level (like car insurance).

This incentive scheme provides technologies and may be useful also for sesame because inputs are important. This has been seen also in coffee contract farming. Another example was given: providing special packaging for cotton production.

A final comment was made on the importance transparency of costs and the need to explain to farmers the costs the contractor is making in a very careful way. Unclear or misunderstood information may give rise to problems and lower trust of farmers.

Conclusion on contract farming

Contract farming has not been applied in Ethiopia on a large scale yet. There are some pilot projects with different crops. There was quite some discussion on whether and how contract farming could work for sesame production. It was generally agreed that farmers need to have an incentive in the form of a premium price. But other incentives such as providing technology could also be important. It was felt that in general farmers distrust the exporters, especially on prices. Exporters said that farmers would often accuse them of giving them too low prices. There was agreement that there is a tendency in Ethiopia to focus on giving farmers the highest price possible instead of focusing on a price that is competitive internationally. Often the local sesame prices are as high or even higher than international prices. Contract farming will benefit also from a higher transparency in (international) prices, e.g. provided by the ECX.

Exporters see benefits in collaborating with producer organisations such as cooperative unions. However, due to their structure, the decision-making process can be very slow, and they can miss out on profitable opportunities. Because they often lack access to (international) price information, they may take decision on the basis of misleading expectation instead of reliable predictions. For instance, the expectation that the sesame prices will continue to rise while international prices were already falling, left many cooperative unions with large quantities of stocks that they can now only sell at a very low price.

Finally, there was some debate on whether sesame was a suitable crop for contract farming. On the one hand, sesame is a very labour intensive crop which requires close supervision (especially around harvesting time), which makes it suitable for small-scale farming. However, this will mean that a contractor needs to contract many farmers in order to obtain a sufficient amount of quality supply, which will increase transaction costs. Sesame is sold on the regular market, which means there is much scope for side-selling. Whether offering a premium price (or other non-cash services) is sufficient to deter side-selling is as yet an unresolved issue. There was some agreement that in the case of specialty sesame (or organic sesame) that will be able to fetch a higher price in international markets but not in local markets may offer the best scope for contract farming.

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