

**Smallholder integration into commercial value chains through agricultural
traders and local food security**
– Review paper to Finnfund

E2 Research
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1. Introduction

This study, contracted by Finnfund and conducted by E2 Research, aims at describing the conditions for successful and sustainable business partnerships between smallholder farmers and other value chain enterprises in developing countries. It was conducted as a literature review between December 2021 and February 2022 by Atte Penttilä, Anni Savikurki and Marjatta Selänniemi.

Finnfund is Finnish development finance institution (DFI) and impact investor with a mission to help build a sustainable world by investing in responsible and profitable businesses in developing countries. Along with sustainable agriculture, its priority sectors include forestry, energy, financial services, and digital infrastructure and solutions with two cross-cutting themes of gender equality and climate.

Owned and financed mostly by the State of Finland, Finnfund makes 20-30 new investments annually with a total worth of about 200 – 250 million euros. At the end of 2020, its investments and commitments were 1,070 billion euros in 53 countries. In the agricultural sector, Finnfund invests in agricultural value chains to improve the agricultural productivity, especially in Sub-Saharan Africa. It has invested agricultural enterprises and funds altogether with 61 million euros.

As explained in the Terms of Reference for this assignment, Finnfund investee companies in the agricultural sector often rely on smallholder producers in their sourcing, especially trading companies. This cooperation is believed to be commercially beneficial for both the companies and the smallholders. Big companies can diversify their sourcing and thus reduce risks and the smallholder producers have easy access to markets, and in some cases also to agricultural inputs. To ensure quality production and improved yields, the companies often offer the smallholders e.g., access to agricultural inputs and/or training and advice. However, there are also challenges in the cooperation between smallholders and large companies.

The Theory of Change for sustainable agriculture developed by Finnfund, acknowledges the multiple direct and indirect impacts of agricultural value chain investments, finally contributing to the achievement of the Sustainable Development Goals and other positive impacts in the society. However, there are also multiple points which need specific attention in order the investment induced partnerships to benefit both the farming households and agribusiness companies, not to mention the community and society as a whole.

Based on scientific and other literature, this study aims at describing the conditions for successful and sustainable contract farming arrangements focusing on the East and West African regions. It takes some specific perishable and non-perishable products into closer scrutiny.

After presenting the research questions, methods, and focus areas more in detail, this study presents the typical structures of the supply chains which rely on smallholders and where business partnerships exist with companies and smallholders. Then, it describes the benefits, obstacles and risks, including their mitigation measures, which are connected to these types of partnerships, both from smallholder and company perspective.

Furthermore, this study describes the impacts of commercial cash crop production, and company partnerships on smallholder households' livelihoods and food security. The impacts on local food security will be identified in producer communities and at national level.

Finally, this study provides recommendations for various aspects of future agribusiness partnership endeavors and means to evaluate pre-existing partnerships by using the provided framework tool (Annex 1).

2. Research questions

The overarching aim of this desk review was to answer questions on agribusiness endeavors mostly in East and West Africa, with a specific focus on supply chains and partnerships between big companies and smallholders. Additionally, the impacts of cash crop production and company partnerships on smallholder households' and communities' livelihoods and food security were elucidated. The research questions guiding this review were as follows:

1. What are the typical structures of smallholder reliant supply chains and type of business partnerships between big companies and smallholders?
2. What are the important benefits, obstacles, and risks, as well as their mitigation strategies both from company and smallholder perspective?
3. What are the common impacts of commercial cash crop production and company partnerships on smallholder households' livelihood and food security?
4. What are the impacts of smallholder reliant value chains on local food security in producer communities (at local level) and at national level?

3. Methods

This study was conducted as a desk study by reviewing and analysing the existing literature and research about the subject. The focus was on peer-reviewed material, but other sources, such as studies, reviews, and project and program reports were utilized when applicable.

Knowledge production in the field of business development in general, but agribusiness development specifically, has accelerated but is at the same time fragmented and lacks coherence. Literary review or desk review in this case was justified as it integrates findings and perspectives from a wide array of empirical studies, and thereby addresses the questions that are asked from multiple viewpoints and contexts. A desk review can synthesize research findings to show meta-level evidence that a single study does not have the power to do.

Since the research questions were specific but allowed for broader context, the review was approached in a semi-systematic way. From the findings of the semi-systematic review the researchers further synthesized the results using thematic analysis to identify and report themes that are found.

4. Focus Areas and Products

As Finnfund's investment portfolio in smallholder market access focuses on the East and West African regions, the selection of review material concentrated on literature and research addressing smallholder supply chains and business partnerships in countries within those geographical regions. However, smallholder reliant value chains, whether contract farming or others, rely on similar local and global market systems, and so the use of thematic examples from other regions and areas was justified as well.

Smallholder participation in value chains is dependent on production of commodities. The focus of this study was on some specific perishable and non-perishable products that smallholders grow as means to enter economies beyond their conventional reach and increase their livelihood opportunities. These

commodities are in demand of agribusiness partners who act as the buyers in this system. In the perishable category, the focus was on avocado and banana. Whereas, in the non-perishable category, the focus was on lentils, beans, coffee, sugar, cotton, cacao, cashew, and palm oil. The specific categories were chosen based on prior Finnfund investments and interest. It should be noted, however, that other agricultural commodities were also included in the analysis to get a more comprehensive view of the smallholder business partnerships and outcomes of such arrangements.

5. Agribusiness Partnership Review

5.1 Smallholders as part of Value Chains

Creation of win-win situations often require other actors in addition to an agribusiness company and a smallholder to participate in the value chain. These can be for example those organizing training for farmers or enabling farmers to get access to financial services.

When speaking of smallholders, we generally understand that demography as being a group of likeminded people with similar situations, interests, and strategies. This is not, however, the reality. According to FAO, a smallholder is considered to be a person, unit, family, or any other grouping who engage in agriculture, forestry, on fishing on rather small scale by using their own labor (FAO 2012). They are a diverse group of people in a variety of geographies and landscapes, who generally have family-oriented motives, either for profit or for subsistence. Christen and Anderson (2013) divide smallholders into specifically commercial and non-commercial as a way of distinguishing or categorizing them to explain differentiated financial needs in different situations. Even though smallholders find themselves in a multitude of varied conditions, there are, however, clear unifying similarities as well.

For one, it has been found that **access to markets is generally limited with smallholders**. This means that even if productivity of their agricultural lands would be sufficient for surplus production, they may not be able to sell their products. Historically, the sales of agricultural commodities and food has been concentrated to few producers and therefore the profits from agricultural endeavors have been concentrated as well (Barrett et al. 2012). While some larger entities have been able to access local and global value chains from same geographies, smallholders often have not. According to FAO (2012) most of the 1,5 billion people living in smallholder households live in poverty. Market access is then an important bottle neck for smallholders that many development organizations and investors are trying to overcome (Al-Hassan, Sarpong, and Mensah-Bonsu 2006).

Additionally, it is known that **smallholders are generally risk averse**, meaning that **they try to avoid unnecessary risks, while simultaneously trying to optimize production and other aspects of agricultural work** (Abebe et al. 2013). In fact, smallholders may opt to organize into cooperatives or participate in contract farming, as strategies to decrease some of the risks they are facing (Bellemare 2012; Baglioni 2015). Furthermore, private sector investments in agriculture always include some risk, which is why development and donor organizations and banks, such as the World Bank, have been attempting to enable agribusiness to invest in smallholder farmers by decreasing the risk faced both by the smallholders and agribusinesses (Kojo S. Amanor 2009). The purpose of these investments is to bring financial benefits to smallholders and agribusiness companies – to create win-win situations which would lead to reduction of poverty of smallholders, economic growth on investment areas, and produce additional advantages such as increased food security and jobs (Chamberlain and Anseeuw 2019).

Sometimes this type of partnerships are titled **inclusive agribusiness or inclusive value chain integration**, meaning that the aim is to incorporate smallholder farmers from outside of well-established value chains into the market system for the benefit and wellbeing of all (Oostendorp et al. 2019; Ros-Tonen et al. 2019; Mangnus 2019). Under the framework of inclusivity, “...international development finance institutions (DFIs), social investors and impact investors tend to use social and environmental standards for their agribusiness investments.” (Oostendorp et al. 2019, 19) This dynamic is often embedded in corporate social responsibility endeavors as well (Bitzer and Glasbergen 2010; Bruni and Santucci 2016). Although, at the same time the inclusion of smallholders can be seen as a sourcing strategy without further ideas based on philanthropy or inclusivity (Sjauw-Koen-Fa, Blok, and Omta 2016).

For a smallholder to participate in a value chain (whether inclusive agribusiness or other), it may require other actors in addition to an agribusiness company and a smallholder(s). Value chain collaboration (VCC) targets goals outside of conventional value chains, including for example a sense of corporate responsibility, maintaining biodiversity, or climate change mitigation, and extends partnerships to include governmental and/or non-governmental organizations (NGOs) to achieve a wider array of results than the more conventional value chains may entail (Deans, Ros-Tonen, and Derkyi 2018). So, in addition to the idea of inclusive agribusiness to include smallholders, VCC attempts to tackle additional concerns as well. These partnerships can be formed in diverse ways, but the underlying dynamics and goals remain relatively similar; to increase the capacity of the smallholder by, for example, training on organizing into groups or farming methods and enable access to credit for inputs or other purposes.

Value chain is a concept that tries to describe the activities, steps, and actors that are needed for the transformation of a raw material into a product for which there is demand while gaining value on each step (Christen and Anderson 2013; Sjauw-Koen-Fa, Blok, and Omta 2016). Generally, and simplified, value chains start from production (including inputs), go through value addition, marketing and sales, and finally end with consumers. Participation in this process is clearly seen and promoted as a way for smallholders alleviate poverty, upgrade production, and adopt modern agricultural methods (Kojo S. Amanor 2019). Oftentimes smallholders are the producers in this equation, whereas value addition and sales to consumers are left for other businesses.

Christen and Anderson (2013) have divided value chains into two separate but not static categories based on their level of access to markets. In a *loose* value chain smallholders are considered commercial agents who have productions succeeding subsistence and may also have access to some forms of finance. They are still mostly in poverty but due to their market activities and possibly access to more land, to a lesser extent than subsistence, or non-commercial, farmers. On the other hand, smallholders in *tight* value chains are considered more resilient and less poor than farmers participating in loose value chains. Their farming activities are more business minded than that of the previous category, they have better access to finance and higher quality inputs and therefore are able to grow higher value products. The question is how to go from subsistence level to loose value chains and further to tight value chains. One possible answer proposed by many in the field of development is the previously mentioned inclusive agribusiness model that generally uses business partnerships as foundation.

5.2 Smallholder Business Partnerships

Smallholder business partnerships have multiple different ways in which they are formed, operated, and organized. The main types of business models that smallholder and company partnerships generally fall under six rather comprehensive categories. These categories are: *contract farming, lease and management contracts, tenant farming and sharecropping, joint ventures, farmer-owned businesses, and*

upstream and downstream business links (Vermeulen and Cotula 2010). Each of these headings contains more than one way of organizing the partnership but have enough similarities to be consolidated.

Contract farming is regarded as the most common form of smallholder business partnerships to overcome the bottleneck of market access (Kirsten and Sartorius 2002). The name is quite self-explanatory, since the partnership is based on a pre-agreed contract between farmers and buyers (which can be agribusinesses, import/export companies, or any other entity). The contract is a binding agreement wherein it is stated, for example, what is to be produced, how, and by when (Eaton and Shepherd 2001). Although outgrower schemes and contract farming are often used as synonyms, according to some definitions there are fundamental differences as well. Wendimu, Henningsen, and Gibbon (2016) explain how **outgrower schemes are based on mandatory participation of farmers, whereas contract farming is a voluntary process** to which farmers sign a contract with a private entity by their own volition. It is important to recognize that generally when referring to outgrower schemes, people are not referring to mandatory participation but to contract farming. To avoid any confusion, it may, therefore, be beneficial to refrain from using the term outgrower scheme, unless focusing on mandatory participation.

Lease and management contracts are arrangements where farmers produce on land that is leased from someone else. Here, as with contract farming, there are several different ways in which the arrangements are organized and how land is procured for production purposes. Generally, these contractual agreements include a profit-sharing mechanism instead of fixed fee. **This model allows the agribusiness full control of the farming activities on the land but offers mechanisms for revenue-sharing.** It is important to note that this model does not support land acquisition but rental of community or community member lands (Vermeulen and Cotula 2010).

Sharecropping and tenant farming are considered a subsection of lease and management contracts, but in the opposite way. Here the landowner is the agribusiness, whilst sharecroppers and tenants farm the land. This type of business partnership is criticized for being exploitative, but at the same time, it is the most common form of land rental in developing countries (Vermeulen and Cotula 2010). Sharecropping and tenant farming were very common in the US South after the Civil War and is still widely practiced, although to a lesser extent. Similarly, in Europe, sharecropping was much more common before World War II than after it (Oglethorpe 2014). It has been found that overall, sharecropping has decreased due to several reasons, for example with technological advances and economic growth (Federico 2006).

As the name implies, joint ventures, are arrangements wherein two or more groups, companies, organizations, or other, form a business and run it together, jointly. **Smallholder participation in joint ventures often requires the farmers to organize into groups of some sort, such as cooperatives.** Without such groups, the contribution required to partake in the venture is often too cumbersome for a smallholder. It is important to note that in joint ventures the organizations do not merge into an entity but maintain their statuses as separate, legal organizations. In joint ventures, there frequently are government entities involved in the process to make sure that the process goes along smoothly (Vermeulen and Cotula 2010).

Farmer-owned businesses often rely on smallholders organizing into groups as there is negotiating power in numbers (Hur 2021). These businesses are organized to consolidate the combined assets of smallholders to be able to access finance, to enter into more capital intensive endeavors, such as processing or marketing, or to limit liability and share risk (Vermeulen and Cotula 2010; Prowse 2012). The farmer owned producer organizations can be associations, trusts, or enterprises, such as cooperatives.

Upstream and downstream business links describe a system in a vertical way, where downstream is considered to be farmers and farmer organizations, and upstream refers to actors higher in the value chain, such as agribusiness exporters or European importers (Al-Hassan, Sarpong, and Mensah-Bonsu 2006). What makes **upstream and downstream business links** different from, for example contract farming, is that it **focuses on business opportunities outside of the purview of agricultural production and may include input from NGOs or governments**. Examples of these links include micro-credit, advisory, and input services, but not the actual production (Vermeulen and Cotula 2010). With upstream and downstream links, investment for development interventions is much more prevalent in downstream, but nevertheless, the partner companies in global value chains aim to increase their power in market processes of either end (Matsumoto-Izadifar 2008; Ajwang 2020).

Furthermore, the borders between these different types of partnerships are not clear cut and there is fluidity between them. For example, there are numerous examples of smallholder farmers organizing into a farmer-owned businesses, such as a cooperative, and then have contracts with agribusinesses to sell their output. For a business partnership, farmers who have already established an organization may appear more ready to participate in contract farming by agribusiness companies (Mugwagwa, Bijman, and Trienekens 2019). This type of business partnership combines contract farming and farmer-owned business ideas. Producer organizations may also partake in a joint venture wherein the organization and the partner company have equal equity stakes in an endeavor (Hur 2021). Partnerships may well include interventions by NGOs, donor agencies, government entities or others for the purpose of the partnership to succeed. There are cases of state-led contract farming schemes with donor funding for input support (Mazwi et al. 2019).

Generally **if the partnership includes foreign investors and/or companies, foreign NGOs have tendency to intervene in either campaigning against the investment or by providing training, capacity building or other means for the smallholders to access value chains** (Brüntrup et al. 2018). What is abundantly clear, is that benefits to smallholders from business partnerships are context specific. Success may depend on, for example, the type of agriculture, type of partnership, land rights, water availability, cultural context, and many other variables (Glover and Jones 2019; Hall, Scoones, and Tsikata 2017).

5.3 Contract Farming Structures

There is major diversity in the types of contract farming partnerships as well as in the actors involved. Smallholder participation in contract farming is complex and needs to be carefully analyzed.

The typical structures for smallholder reliant value chains are mostly based on contract farming ideas (Kirsten and Sartorius 2002), which have become ubiquitous due to larger populations, growing demand for different food products due to, for example, changing diets, economic growth, and liberalization of markets, among others (Prowse 2012). It has been said that contract farming has the potential to provide a triple-win situation where food sector companies make a profit, smallholders may generate income, and it may mitigate environmental degradation due to agricultural activities, which all in some ways relate to achieving the Sustainable Development Goals (SDGs) (Vabi Vamuloh et al. 2019).

Contract farming is essentially any form of agricultural production that is executed according to an agreement (often fixed-term contract) between farmers and a business with certain requirements on the production, quality of products, and the marketing of the commodity and possible future commitments as well (da Silva 2005; Christen and Anderson 2013; Bourque 2011). It is generally agreed that this process often embeds an intervention in production, such as lending agricultural inputs for exclusive purchasing rights, albeit the intervention can be indirect or minute (Oya 2012; Prowse 2012). Prowse (2012)

underlines how the contract has a multi-role in contract farming. It offers motivation through incentives, coordination between actors, reduction of transaction costs, stipulates production process, and incorporates pricing outlines.

Historically, contract farming has been a staple in North America and Western Europe (especially in the fruit canning industry) for a long time but is increasingly common in developing countries (Watts 1994). Contract farming schemes have grown in popularity in the last decades because they are said to offer opportunities for large scale agribusinesses as well as smallholders (Felgenhauer and Wolter 2008). In a development context, contract farming has also been promoted by entities such as the World Bank and USAID as a way of integrating smallholders to globalized export economies (Watts 1994), and is increasing in popularity continuously (Melese 2012). Furthermore, in Sub-Saharan Africa, contract farming arrangements have been considered to be a system for farmers to overcome persistent market failures (Grosh 1994).

Currently **contract farming is the most popular approach for the purpose of smallholders to access value chains**. There are, however, debates on whether smallholders are actually included in this types of outgrower schemes in meaningful quantities and whether these schemes reproduce socioeconomic inequalities in rural areas because of that exclusion (Paglietti and Sabrie 2012). Nevertheless, smallholder farmers are eager to participate in contract farming as it offers a chance at livelihood improvement and possible decrease of individual risk (Abebe et al. 2013; Bruni and Santucci 2016). One of the major reasons contract farming is increasing in popularity is the spread of food retailing businesses due to rapid urbanization, requiring a steady flow of high quality raw materials, therefore emphasizing the need of vertical coordination between producers and markets (Bijman 2008; Mugwagwa, Bijman, and Trienekens 2020). Additionally, improvements in logistics chains and transportation in have made the supply chains more efficient, thus creating opportunities for smallholder inclusion (Kabungo and Jenkins 2016). However, contract farming is not itself a silver bullet solution but as with any business partnership, context specific (Fisher and Roberts 2017).

Contract farming is perceived as formal ways of forming a business partnership, but there are informal ways as well. A common agreement between actors can, and is often, a way in which the partnership is formed (Vicol et al. 2022; IBIS 2021). It may be that informal agreements are in some cases more accessible for smallholders, especially in relation to dealing with local traders instead of formal financial institutions (Veldwisch and Woodhouse 2022).

Contract farming models

As previously mentioned, contract farming is an umbrella term for a type of business partnership, and it contains several models of operation. Eaton and Shepherd (2001) have distinguished five models according to the organizations, entities, actors involved and the way they are set up. The five types of contract farming are:

1. The centralized model.
2. The nucleus estate model.
3. The multipartite model.
4. The informal model.
5. The intermediary model.

The centralized model of contract farming is a vertically operated system based on a centralized buyer (e.g., processor, packer) who is purchasing product from several smallholder farmers. There is large variety in products that enter markets through this model, and it is therefore not at all specific in type of

agricultural production. It may focus on annual perishable and non-perishable crops, cattle, dairy, forest products, but some form of processing is often required, and quite strict quality standards are enforced. The scalability within such a model is essential to its functioning (Bijman 2008), and it therefore **favours larger scale farming activities**. This type of model is sometimes referred to as an outgrower scheme, but as mentioned earlier, the same term may be used in referring to mandatory participation of smallholders and is therefore not used in this study.

The nucleus estate model adds own production to the production contracted smallholders in the form of a plantation or a central estate to the centralized model. The nucleus is essentially a large farm unit, and the central estate may act as a research or breeding center or to guarantee that processing facilities will have enough products to keep functioning. As the central estate is also often producing, the contracts for smallholders may vary in intensity. For some it may be that the company purchases everything the smallholder produces without further engagement, but it can also be that there are input and service agreements attached to the contract (Brüntrup et al. 2018). It is also possible that a farmer organization that is owned by smallholders, owns the nucleus estate (Chamberlain and Anseeuw 2019).

The multipartite model (sometimes referred to as tripartite) **often consists of a collaboration between governmental or non-governmental organizations, smallholders or farmer organizations, and the private sector** (Vabi Vamuloh et al. 2019). It can evolve out of a nucleus estate model if indeed farmers are organized into a farmer organization. Melese (2012) states that the multipartite model is possibly the best option for poor smallholders as the “integrated effort of many actors eases the burden on individual contracting parties.” (293) The role of the government or NGO partner can be in creation of farmer organizations, awareness creation, providing extension services, whilst the company can, for example provide inputs to the smallholders. Additionally, the third party (government or NGO) may play a crucial role in contract enforcement on either side of the contract as well as in resolving any conflicts that may arise. This type of scheme incorporates ideas from the joint venture model, in that governments and/or farmer organizations can form a joint venture with the private sector (Eaton and Shepherd 2001).

If the nucleus estate and centralized models specifically focus on larger endeavors, **the informal model is more concentrated on small companies and individual entrepreneurs**. In the informal model the contracts between smallholders and companies are based on seasons and emphasize perishable products. Usually there is minimal or no processing at all involved with this scheme and it seems to be the preferred model for fruit and vegetable crops (Prowse 2012). A common example of this model is when a supermarket buys fresh produce directly from farmers or possibly through individual developers. But on the other hand, this model can also be used for export purposes as well (Eaton and Shepherd 2001). In this model, as in the previous ones, the company involved or in some cases an NGO or state service may provide input support or credit to the smallholders, who are then usually expected to reimburse the contracting company for the value after harvest (Ragasa, Lambrecht, and Kufoalor 2018).

The intermediary model is generally considered to be a combination or a hybrid of the centralized and the informal models (Vabi Vamuloh et al. 2019). In this model the private sector partner sub-contracts intermediary agents to handle logistics between the smallholder producer and the processor/buyer. The intermediaries can be for example farmer organizations, such as cooperatives, but they can also be more traditional “middle men” or other private operators (Abate and Teshome 2009). The sub-contracting action potentially disrupts and disconnects any direct link between the company and the smallholders, which can negatively influence the income generating opportunities of the smallholder as well lower quality standards and irregularities in production (Eaton and Shepherd 2001). It seems to be particularly fitting for staple food crops and has a wide array of possible implementation opportunities. Additionally,

this model is seemingly popular with agribusiness partnerships involved with organic or fair-trade certification processes (Prowse 2012).

Development donors, actors, and DFIs have been involved with most all the different models of contract farming. The scales of course matter and the informal models are generally bereft of investments, although there are exceptions (IBIS 2021). The role of these mentioned actors can vary to a great extent, and they can focus on very different aspects of the partnership.

In addition to the five models of contract farming, the intensity of the contracts and agreements vary according to the specification of three areas of the arrangement: market provision, resource provision, and management specifications (Eaton and Shepherd 2001). Market provision refers to what the terms and conditions for purchasing and sales are. Resource provision refers to the possible supply of inputs or other agricultural production related matters. Whereas management specifications refer to how production (cultivation, harvest, inputs, etc.) is specifically organized. Suffice to say that there is major diversity in the types of contract farming partnerships as well as in the actors involved (Hur 2021). And so, **smallholder participation in contract farming “is complex, multifaceted, and ambiguous that must be more carefully analyzed than is typically the case.”** (Vabi Vamuloh et al. 2019, 14)

5.4 Contract Farming’s Impact to Smallholders’ Income and Sustainability

In a review on whether contract farming improves income of smallholders Nguyen, Dzator, and Nadolny (2015) come to the conclusion that it seems that they mostly do, but add that many studies claiming positive effects do not present hard data on matters such as income increase. Also, long term impacts on income and productivity are unknown as of yet due to studies focusing on short term benefits. Prowse (2012) found that there are more examples of successful contract farming initiatives than there are of failures, meaning that there are more cases where incomes and productivity have increased. Meemken and Bellemare (2020) elaborate how, on average in developing countries, households participating in contract farming are earning 10% more than their non-participating counterparts. On the other hand, for example, Ragasa, Lambrecht, and Kufoalor (2018) consider that contract farming may increase productivity growth but not necessarily increase income or reduce poverty due to increased input requirements.

Nevertheless, many smallholders are eager to join contract farming arrangements even if they suspect that the contracts favor the company side of the agreement and limits farmer autonomy, since the contract farming schemes embed a **possibility of increasing incomes** as well as aspects of **risk aversion** (Abebe et al. 2013). Furthermore, smallholders can also increase their **negotiating power** by joining a contract farming arrangement where they do not have to deal with traders, or cut out the middle men, who may abuse the smallholders’ situation (Bellemare and Lim 2018). Similarly, smallholders joining forces and forming producer organizations such as cooperatives also offer this bargaining power potential, both in dealing with traders but also with joining with an agribusiness partner for a joint venture or some other form of partnership (Hur 2021).

Evidence points to the direction that there is a positive result for smallholder income increase from contract farming or to make the jump from non-commercial to commercial operations (Kirsten and Sartorius 2002), but who actually benefits is an important question. Do all participants benefit equally or are there some differences? Herrman (2017) found that farmers with **larger parcels of land** did generally better than land-poor, both in absolute and relative terms. It does seem that smaller farm size, in some cases, equates to lower response ratios in economic terms as well as for participation (Ton et al. 2018; Vabi Vamuloh et al. 2019). Furthermore, larger landholders have the potential to attract contracts from a

variety of actors whereas smallholders may not be able to diversify their activities in relation to contract farming due to small farm sizes (Baglioni 2015).

The question **of farm size also relates to power**. Farmers with smaller landholdings may be subject to less advantageous contract terms than those of larger landholders or are less likely to participate at all due to minimum land size requirements stipulated in the contract (Bellemare 2012; Abate and Teshome 2009; Mazwi et al. 2019). It can also be that companies are inclined to join forces with larger-scale growers due to the increased transaction costs when dealing with several smaller-scale farmers or the higher probability of default (Bijman 2008). Additionally, when thinking about mechanization and economies of scale, the optimum farm size increases with further mechanization, further disadvantaging smaller scale farming activities (Schübach 2014).

Additionally, similar exclusion dynamics can be found when comparing those with **access to irrigation** and those without, where access attracts better contract terms (Barrett et al. 2012), or is compulsory to join the scheme (Wangu et al. 2021). It is good to note though, that bias against small-scale farmers is not in any way uniform and there are many studies that do not indicate contracting firms preferring large-scale farmers (Bijman 2008). Furthermore, participation on any agribusiness partnership may depend on **demographic factors**, such as age, level of education or experience, formal land titles, and farmer attitude towards contract farming (Vabi Vamuloh et al. 2019).

Some business partnerships between smallholders and agribusiness companies embed **insurance** in the contract. Firstly, the contract itself may act as insurance with the markets, when the price is agreed, and the contract upheld (Barrett et al. 2012; Kirsten and Sartorius 2002). Secondly, the companies may provide the farmers an additional risk-insurance policy (Kojo S. Amanor 2009; Christen and Anderson 2013), but unfortunately the premium is often too high for the farmers, thus leaving them without formal risk protection (Abebe et al. 2013). However, most contract farming organizations do not provide crop insurance or others (Narayan, Sanhita, and Hemanta Kumar 2016). If individual farmers are not able to access insurance, it may be that a producer organization could. “Taking out an agricultural insurance allows the PO to limit the impact of climate risks, particularly the inability to repay input prefinancing” (Hur 2021, 32). An **insurance policy** can be then leveraged against banking institutions in extending credit, for example.

According to Oostendorp et al. (2019) inclusive finance has a critical role in the **creation of climate smart agribusiness partnerships**, particularly because smallholder farmers are generally perceived as being one of the most vulnerable groups to climate change. There are, of course, many ways in which inclusive finance can operate but a business partnership between agribusiness companies and smallholders is one. In a case study from Ghana, it was found that contract farming has the potential to increase smallholder farmers’ ability to adopt different coping and adaptation strategies, such as crop rotation, row planting, and mixed farming that can mitigate negative climate change effects (Azumah, Donkoh, and Ansah 2016). The causal link works the other way around as well – the potential to get a contract increases with the adoption of adaptation strategies. On the other hand, contracts in seed-corn industry contract farming schemes may impose barriers to climate change mitigation but this example is focusing on a very industrialized model and is not really descriptive of smallholder situations (Schewe and Stuart 2017).

5.5 Effects of Contract Farming to Communities

What of then community-level effects of contract farming? There are suggestions that participating in contract farming, regardless of model, may increase need for **hired labor** in communities. In centralized, nucleus or intermediary contract farming models the presence of a processing facility may offer

employment to people from the local community (Wangu, Mangnus, and van Westen 2020). In relation to avocado farming in Kenya, it was found that there was a positive correlation of contract farming and hiring local workers for agricultural and marketing purposes, thus suggesting a higher likelihood of generating employment (Johnny et al. 2019). This should lead to a spillover effect, where non-participating households' income would increase, but Meemken and Bellemare (2020) do not find this generally to be the case. Contrastingly, Schüpbach (2014) indicates that agribusiness presence may positively affect **local infrastructure development** as well as schools, health and housing facilities. Contract farming schemes also have the potential to **activate corporate social responsibility actions** such as build infrastructure or build capacity of farmers but the results of such are varied (Brüntrup et al. 2018; Djouma et al. 2018; Sjauw-Koen-Fa, Blok, and Omta 2016). Patrick (2004) focuses on how these types of business partnerships may increase the chance of future partnerships, access to government programs, and development or maintenance of community networks. Furthermore, he suggests that community-level social capital has a higher influence on whether or not farmers will participate in business partnerships with larger companies.

These dynamics further elaborate the interest in producer organizations as way of increasing collective action (Chamberlain and Anseeuw 2019). Non-commercial smallholder farmers trying to join value chains, whether loose or tight (as described in earlier sections), may **benefit from joining producer organizations** as part of contract farming schemes. In a comparison between two sets of farmers, ones belonging to a cooperative and participating in a contract farming scheme and ones not belonging to a cooperative or participating in contract farming, it was found that the ones in a cooperative and participating in the scheme received higher incomes (Wangu, Mangnus, and van Westen 2020). Simply being part of a cooperative without the business partnership did not, however, increase incomes significantly.

Although contract farming has the potential to increase incomes regardless of sectors or products, Bijman (2008) has found that there are **seven general disadvantages** that have been witnessed with smallholder-agribusiness partnerships involved in contract farming:

1. It may divide local communities into “winners and losers,” where the winners are the business partners and losers the people who are not receiving increased incomes but have to pay increased process for food and agricultural inputs.
2. Shifting to cash crops may decrease production of food crops for local use.
3. It may lead to more narrow local markets.
4. It may lead to dependency between the producer and the contractors.
5. It may lead to gender inequalities (see also Zakaria 2017).
6. It may lead to overexploitation of natural resources.
7. Changing relative incomes may lead to social tensions.

According to Watts (1994) the general duality of viewpoints (win-win/win-lose) on contract farming, is also related to risk. The agribusiness partner is able to reduce risks by sharing production responsibilities to smallholders, while the contracted farmer faces strict production regimes and oppressive forms of management. On the other hand, with contract farming, smallholders may be able to participate in the production of an income generating crop that could be too risky without the contract agreement (Abebe et al. 2013).

The rather ideological debate is not conducive to an overall evaluation due to its lack of specificity in models, partners, or any other matter. The contrasting perspectives are and can be evidence-based but even if that is the case, contract farming systems and models offer such variety that this type of generalization is not sufficient, and a more focused approach looking into the type of arrangements, location, and industry is necessary – any simple conclusion is not possible (Romero 2006; Hall, Scoones,

and Tsikata 2017). Furthermore, Glover and Jones (2019) underscore the “importance of paying attention to the heterogeneity of commercial farming models.” (120)

5.6 Contract farming’s Impact to Food Security

General considerations

World Food Summit (WFS) defined food security in 1996 through four dimensions, where **availability** refers to production, **access** to purchasing power, **acceptability** to nutritious and culturally acceptable food, and **stability** to constant presence of all these dimensions. Clapp et al. (2022) have complemented the definition with **sustainability** and **agency** which means peoples opportunities to influence the decisions concerning their food systems.

Food security can be analyzed in **different levels**, starting from individual and household (HH) level and extending to community level. The more the scope is widened into national and global level, the more assumptions and averages are considered, and the analysis loses its sharpness. In this study, as HH food security is taken as the primary level of analysis, it is good to bear in mind that HH level does not pay attention to intra-household relations. This means for example the allocation of decision-making power in the household which relate to gender relations. This in turn means that assessing food security on HH level always leaves some household members’ situation unconsidered. The realization of food security does not depend only on household’s income and the food itself, but also on the socio-cultural and political context which makes the analysis of food security impacts context specific and challenging to generalize.

While the nutritional aspect is included in the widely referred definition of food security by the WFS, for the sake of fruitful analysis in this study, it is meaningful to handle the terms **food security** and **nutritional security** separately. This is because there can be impacts on food availability and access (food security), that are, from the dietary diversity point of view, different to the impacts on nutritional security.

The general assumption that **improved livelihoods and income levels** directly lead to improved household food security can be challenged due to multiple factors. Surely it holds true that, with the additional income, household is potentially able to purchase additional food items from the market. This often adds to the dietary diversity as these items tend to be other commodities that the HH itself produces. However, the household might have other, non-food priorities for the use of the additional income, such as agricultural inputs or children’s school fees and health care and transportation costs. In addition to the amount of money made, the effect of increased farm income on food security thus depends on the priorities accorded to the different households’ needs (Wangu 2021a). Furthermore, “Locally consumed food would arguably have a more favourable effect on food security than food destined for distant markets” (Wangu 2021b, 3)

At the same time, increased income can have a positive impact on food security, while no effect on **dietary diversity**. Even if HH priorities would include food stuffs, poor local market conditions and limited nutrition education may become socio-economic barriers to nutrition security. It can be that there isn’t a sufficient physical access to the market or there simply aren’t any vegetables, or alternatively the HH does not have enough knowledge on how to compose a nutritious meal. Attainment of food and nutritional security through increased income becomes a risky strategy due to market access limitations, infrastructure deficits and sociopolitical instability (Dal Belo Leite et al. 2020). In some cases, after having allocated land for cash crops, farmers’ income has not been sufficient to cover food costs from the market (Wendimu, Henningsen, and Gibbon 2016).

Additionally, it is relevant to assess food security impacts in **different time frames**. Mangnus (2019) points out that even though HH income may increase in the short run, monocultures in the long run can spur negative effects on soil fertility and biodiversity, added with an increased exposure to pests and price shocks.

Finally, it must be noted that, as contract farming arrangements often involve only one crop and there often are trade-offs in time and land use, assessing the influence of contracting companies to household food security is rather limited. In real life it is a constellation of activities that influence the final food security outcome of the farming households (Mangnus 2019).

The potential positive impacts to food security as well as risks are handled in more detail in the following.

Positive impacts to food security

Bearing in mind the non-generalizability / context specificity of food security impacts, some findings reveal positive food security impacts of contract farming arrangements. Bellemare & Novak (2014) found that in Madagascar participation in contract farming **reduced the duration of the hungry season** of the average HH by about 10 days. Moreover, it was the households with more children, especially female, that benefitted more. It can be speculated that the income was used to cater the HH food needs and the female children, who under restricted circumstances often are the last ones to be fed, could now access better foods.

Some contact arrangements can have **positive effect on price volatility** by stabilizing it. An example on rice from Senegal shows that even though marketing contracts had no impact on producers' incomes, it nevertheless decreased producers' food insecurity because it mitigated price seasonality. Notable is that the contract in question here was on marketing, and not on production (Soullier and Moustier 2018).

Negative impacts / risks to food and nutritional security

Risks and potential negative impacts to food security relate for instance to **land allocation** and the cultivated **crop species**. When entering contract farming, the HH might be eager to devote the most fertile field parcels under contract farming. This means the land area for HH food production is diminished and practiced on lower yielding soils. In some cases, such as in Mozambique and sugar, the contracting companies and factories required unified land areas around the factory to be under the contract which in practice means adjacent plots from neighboring farmers (Dal Belo Leite et al. 2020). This practice questions farmers own decision making and may lead to situations where HH food production is decreased because less land is available, or it is less fertile.

Farmers also have varying starting points when it comes to **agroecological conditions** and **productive resources** at hand, and the use of these resources may become unoptimized from the food security perspective. For example, in Ethiopia farmers devoted their irrigated land for contract farming which led to a situation that the income received was way less than it would have been from the crops that the HH otherwise would have been cultivating on the irrigated land (Mangnus 2019).

Contract farming arrangements may negatively impact food security through cultivated crops. This is firstly related to **dietary diversity** and thus nutritional security. If the commodities under contract are not consumed by the household, the individual and household level dietary diversity can become challenged (Wangu 2021b). Household may of course complement the food items from the market, but as described earlier, there can be limitations related to market access and availability of commodities.

Additionally, **crop diversity** plays a role. If the cultivated crop selection is too narrow, and the necessary resources and economic environment are not in place, farmers are not going to be able to take full advantage of the potential benefits of contract farming. Instead, they may face undesired economic and food security impacts. A study by Olounlade et al. (2020) from Benin showed negative consequences from partaking in rice contract farming. The more farmers joined the rice contract farming, the lower the farm income became. The households became more food insecure as food consumption decreased and nutritional quality of the food was inadequate.

Gender relations and food security

Gender relations play an important role in the realization of food and nutrition security individually and in a household. Gender relations play a role because they affect the power relations and define decision-making power in the HH. They define who has the right to decide upon what is being cultivated and how the household income is spent. Understanding gender roles is crucial in the attempts to impact food and nutrition security through contract farming arrangements, for example.

The gendered roles in a household mean that there are certain household chores, responsibilities and duties that are customarily under either the man's or the woman's responsibility. Additionally, many productive resources such as crops and livestock are gendered and there are gendered differences in tendencies, for instance, women are more likely to spend money on the family wellbeing including food, while themselves are often the last ones to eat. Access to productive resources such as land and finance is more restricted as well as is their general decision-making power. Female-headed households are often in a less favorable situation in a community in relation to access to various resources.

Understanding the gender relations in the smallholder agricultural setting is important because if the existing gender biases are ignored, new business models are not able to secure women's livelihood options and finally the investment's impact assessments remain partial as a big part of the actors are left out from the analyses (Mangnus 2019). As Adams, Gerber, and Amacker (2019) put it, "contract farming is always inherently a gendered process."

As gender relations have an impact on food security, contract farming arrangements might affect gender relations. On a positive side, CF has a chance to empower women by allowing women to take part in the business which enables them to attain financial independence and increase bargaining power within their households. This may lead to more equal gender relations. However, this type of development was possible only for households with access to land (Adams, Gerber, and Amacker 2019). Additionally, in order for the women to enjoy the new avenues of power, like in this case of sugar cane in Malawi, the changes also depended on awareness raising conducted by an NGO. The gender sensitization contributed to changes in social perceptions and to increased valuation of women abilities in commercial farming. The same study recognized that contract farming very easily reinforces the current gendered modes of operations, meaning that, on one hand, it reinforces the masculinization of farm management and ownership, and feminization of labour, on the other. However, women used the increased cash returns for their benefit in decision-making leading to choices which benefitted the wellbeing of the household.

Contract farming may have negative gendered effects if it enhances displacement of traditional food crops (Zakaria 2017). Men might decide to engage more in cash crop farming by displacing crops that traditionally have been under women's responsibility which leads to a situation where power over the income and farm business shifts more to men's benefit.

5.7 Food Security Impacts at Community and National level

Assessing food security impacts beyond individual and household level has more limitations as the context specific factors, such as the agroecological conditions as well socio-political and economic environment, play a more significant role. There are, however, few points to consider at the community level.

One important point concerns **participation**. The experience from Kenya with French Beans demonstrates that usually a part of the community is nevertheless excluded. Even if a positive effect had been realized, it would have been only the minority and often the relatively well-off farmers to have benefitted, possibly contributing to growing inequality (Wangu et al. 2021). If the objective of the contract farming arrangements is local food security improvement, the companies and programs should be able to include all types of smallholders (Wangu 2021b).

Contract farming arrangements can lead to negative impact to community food security by causing price fluctuations. This can aggravate existing inequalities when the non-participating farmers face higher prices and suffer the most (Mangnus 2019). At their worse, contract farming schemes can become a site for political contestations social conflict. Martiniello and Azambuja (2019) recorded contract farming catalyzing social differentiation through the creation of pyramidal and fragmented agrarian structures within the community. Matenga (2017) concluded from Zambia that even if incomes rose for some farmers, it came at a cost, as land, livelihoods and social relations were reconfigured.

The **dietary diversity** impacts can be extended to community level, too. If the food crops are substituted for an export crop that is not consumed locally, there is a risk to negatively influence local food security as the availability of (culturally acceptable) food items at the market diminishes (Wangu 2021b). Wangu et al. (2021) have found no clear link between export of a high-value vegetable that is not consumed locally and improved local food security.

Nevertheless, from the food security point of view it is not relevant where the income comes from, and the **non-farming activities** can be as helpful for a farmer (Wangu 2021b). However, contract farming has the potential to increase employment in the farming business thus sparking positive effects on a community level. In some cases, in Mozambique for instance, the contracting sugar mills have provided **community services** such as education or health care to the whole community (Leite, Leal, and Langa 2017). This is supporting food and nutrition security as the concept in its broadest meaning includes also access to water, sanitation, health care and education (Wangu 2021b).

National level

As the food security impacts of contract farming are context specific, even within countries, assessing and analyzing food security impacts on a national level is not very fruitful or relevant. Something on the national level impact, however, is reflected by Barret et al. (2012) by stating that the contracting firms selecting only the better-off and easy-to-access areas, is likely to increase spatial inequality and reinforce geographic disadvantage within countries.

Finally, Mangnus (2019) wants to spot the light on the measurement methods in assessing the impacts. She claims that the popular measures to evaluate the inclusive agribusiness investments such as contract farming at the outcome level, by using indicators such as income and productivity increase as well as dietary diversity, are not able to capture whether or not sustainable livelihood changes were achieved and to what extent a company has contributed to food security of the poor.

5.8 Benefits and Challenges of Smallholder and Agribusiness Partnerships

Benefits and challenges of partnerships between agribusiness companies and smallholders are context specific.

Contract farming is not a goal in itself – it is seen as means to an end, which in general implies increased and stable incomes and reduction of poverty (Bijman 2008). As with any business endeavor, partnerships between agribusiness companies and smallholders, here focusing on contract farming, have their challenges and advantages as well. These are often very context specific and vary with different partnership models. In the grand scheme of things, **there seems to be two main perspectives as to the benefits and obstacles in contract farming, which are essentially focused on power relations between the buyer and the farmer.** Oya (2012) explains this by stating that there are two different viewpoints - one which focuses on the win-win potential of the contract farming arrangement, especially in areas of market failure, and the other on how the model is seen exploitative of smallholder labor and land. Similarly Hall, Scoones, and Tsikata (2017) question whether contract farming is indeed a win-win solution or whether it “impedes accumulation among smallholders.” (518) While these contrasting perspectives are polarizing, contract farming partnerships are increasing, especially as part of development investments.

Several review articles focusing on evidence from a wide range of contract farming endeavors provide a set of expected or possible outcomes of contract farming. For example, Melese (2012), Bellemare (2015), Kirsten and Sartorius (2002), and Eaton and Shepherd (2001), list the potential benefits and disadvantages to both smallholders as well as agribusinesses (Table 1) that offer a good starting point. In addition to the quite exhaustive list, other suggestions are offered as well but less uniformly. Such as, advancing equity in access to benefits and a variety of modern agricultural technologies (Gaffney et al. 2019), or contract farming displacing traditional food crops which may have negative gendered effects (Hall, Scoones, and Tsikata 2017; Vermeulen and Cotula 2010; Adams, Gerber, and Amacker 2019). Additionally, there are further expected outcomes specifically for producer organizations and companies enveloped in a business partnership (Table 2) (Hur 2021).

Table 1. Potential benefits and challenges of contract farming schemes for agribusiness companies and smallholders. Adapted from Melese (2012), Bellemare (2015), Kirsten and Sartorius (2002) and Eaton and Shepherd (2001).

Agribusiness company		Smallholder	
Challenges	Benefits	Challenges	Benefits
Side-selling by farmers	Reduced transaction costs	Whenever the market situation changes, contractors may reject the produce on the pretext of quality conformity, corruption	Reduced production and marketing risk, fixed price
Misuse or reselling of provided inputs	Guaranteed product uniformity and high quality thanks to the provision of technical assistance to producers	Intentionally non-transparent pricing mechanisms and quality specifications, manipulation of quotas	Access to reliable markets
High transaction costs in dealing with large numbers of farmers, investing in personnel and systems.	Sufficient supply at the right time	Agribusinesses may influence the prices paid to farmers by setting delivery schedules, particularly when prices are volatile, and then adjusting the delivery schedule to take advantage of that volatility	Better access to inputs, technical support and/or credit, extension services
Internalizing the costs of support services as competitors elsewhere do not incur such costs due to government/NGO intervention.	Access to cheap family labor	Loss of control and flexibility in deciding production mixes so as to benefit from market opportunities	Knowledge, skill, and technology transfer
Land availability constraints	Minimized constraints arising from investment in fixed assets such as land ownership	Higher risks arising from monoculture such as diseases, unsuitable technology and crops	Increased yield and crop diversification
Farmer discontent	Political acceptability, more accepted than plantations	As access to credit improves, farmers face a growing risk of indebtedness	Improved income and food security status and hence wellbeing
High transaction costs	Overcome land constraints	Monopsony, there may be no other market to the produced crop and therefore company has more power	

Table 2. Expected benefits and challenges from business partnerships for producer organizations and companies. Adapted from Hur 2021.

Agribusiness company		Producer organization	
Challenges	Benefits	Challenges	Benefits
Non-compliance with contractual commitments	Regular access to quality products with traceability	Non-compliance with contractual commitments	Access to stable and potentially profitable market
Work done by processing enterprise not known by producer organization	Access to group offer to realize economies of scale	Dependency on the buyer	Ability to offer more services to members
Producer organization dependency on technical and financial support from external partners	Enhanced image by buying from the smallholder producers it supports	Quality standards for industrial processing.	Development of new skills and enhanced credibility of the organization
Risk of default		Dependency on technical and financial support from external partners	
Fluctuations in market prices		Price does not reflect training and procedures put in place by producer organization	
		Food and nutritional security due to supplying company	
		Monoculture effects on environment	

5.9 Crop Specific Examples

Avocado

Focusing on avocado contract farming in Kenya, Mwambi et al. (2016) explain how farmers participating in the scheme had much better access to credit (used for inputs to guarantee better quality) than non-participating community members, but contracted farmers then had to spend more money on transportation of the produce to a central hub. Contracted farmers did receive better price for their produce but eventually their incomes did not increase significantly with this scheme, mostly due to the precarious informal nature of the contract which left the farmers open to vagaries of the contractor.

For smallholders to partake in loose and tight value chains with avocado may also require the backing of governmental entities and programs, especially in relation to the households with small plot sizes (Romero

2006). Johnny (2019) explains how the government of Kenya, in collaboration with international development agencies, has implemented programs to improve production through various means, such as providing smallholders with credit and inputs, and to link farmers with exporters to create contract farming schemes. Smallholder participation to contract farming was found to be dependent on the number of trees owned, household assets, hired labor, training and information on avocado production and marketing, cost of transport, and frequency of going to avocado meetings. There was positive correlation between the variables and participation, but also with income generation. The more capital (social, human) the contracted farmer had, the more income they generated.

Banana

Isriya and Akkanee (2021) compared different types of banana contract farming schemes, namely the informal model, intermediary model, and a combination of a nucleus estate and intermediary models. The informal model was a non-contractual deal between a wholesaler and smallholder farmers. In the intermediary model the contract was between a cooperative and smallholder farmers, whereas in the combination of nucleus estate and intermediary models the arrangement was between a private company and a producer organization (of which the smallholder farmers were members). Of these models the one with highest average banana price, yield, and net income was from the nucleus estate intermediary model, supporting the suggestions that forming farmer organizations may be beneficial.

Kumar's (2011) findings support the previous when describing the benefits of a similar model where a banana company has their own plantation and supports the production by contracting a cooperative to produce bananas for them, portraying it as a win-win for the cooperative, their members, and the company. Furthermore, the company uses the plantation as a training ground for the cooperative members as well. The establishment of a banana producer cooperative may require external support from NGOs or government (especially in considering storage facilities etc.) and it is important to realize that a cooperative in itself does not necessarily have a positive outcome in income generation, but it can decrease transaction costs and act as a catalyst for innovation adoption and upgrading of production systems (Fischer and Qaim 2012). In thinking about future viability and feasibility it should be noted that banana is very susceptible to climate impacts due to increasing risks from temperature increase and the spread of pest and pathogens (Ploetz, Kema, and Ma 2015).

Beans

Mugwagwa, Bijman, and Trienekens (2019) evaluate some of the heterogeneity of contract farming models in relation to soya beans in Malawi. A company had decided to source beans from four different contract arrangements with producer organizations, individual farmers, and from the spot market. The system was set up with donor support, who had stipulated that the company needs to acquire beans from these different sources as a way to then compare and figure out the most successful models. Although the company contracted individual medium and large-scale farmers, they were interested to contract producer organizations because those were perceived as being ready to participate in the model, inferring that in a company's perspective, again, farmer organizations may have an advantage over non-organized farmers as potential outgrowers. NGO support was needed to get the operations going, because farmers' trust towards the agribusiness was not high enough.

Additionally, the NGO partner was responsible, for example, for some of the extension services and contract monitoring. The first arrangement was with farmers who had been organized into a group by an NGO who subsequently offered training and input support to the group. The NGO also oversaw the signing of the contract between the company and the farmer group. The second system was with the company and the largest farmer organization in the country with more than 160,000 members that acts as an

umbrella but does not sign a contract with the company but acts as a link between the producers and the company. The signees are from smaller units, associations, of which there are 43 of in the larger group. In the third model the company has contracts with cooperatives, which are considered a more formal organization of farmers. In the last model, the company had direct contracts with individual medium and large-scale farmers.

The overall findings from the study indicate that all of the models have their benefits and challenges and that there is no silver bullet answer. Regardless, some key insights were found. For example, in the company's perspective the **presence of an NGO is beneficial** since they are responsible for some of the **extension** work but also because they do not usually act opportunistically and are seen more benevolent as partners. At the same time NGO presence is generally project orientated and they are not necessarily focused so strongly on financial benefits but overall wellbeing. In this case, the clearest message is that the different contract farming models "...allow the agroprocessor to plan, secure and control the flow of raw materials for optimal utilization of its installed capacity" (Mugwagwa, Bijman, and Trienekens 2019, 92), the models, therefore, complement each other.

In an example from Kenya (Wangu et al. 2021), a bean contract farming scheme was set up with local farmers and farmer groups, an agribusiness company, an international NGO, a government export agency, and a Dutch private agricultural sector provider, each playing a specific role in the arrangement. Simplified, the NGO trains extensions service providers, the government facilitates the contracting process, the company provides inputs, and farmers produce. There was however a prerequisite for participation - access to irrigation. It was found that **lack of financial means** was prohibiting households from having access to irrigation and therefore from accessing the scheme itself. This aspect provides insight on the potential inclusivity aspect of any contract farming case. Furthermore, in this case, the contracted farmers barely earned more income than the excluded farmers.

Cacao

The production of cacao in Côte d'Ivoire has been moving to the direction of large estate production by agribusiness companies and increasing dispossession of smallholder farmers (Kojo Sebastian Amanor 2012). The success of larger companies and commercial smallholders have made it difficult for subsistence farmers to be able to make the jump into loose value chains. There is an opportunity of vertical integration, but it seems it has not yet really emerged.

In Ghana, the integration of small and medium cacao producers into commercial networks has proved difficult. The producers collaborated with a local NGO to figure out how they could access markets and benefit from the growing chocolate trend. The role of the NGO was to act as translator, both linguistic and cultural, between the producers and commercial entities. No contract farming scheme was established here, but the findings were in line with previous examples of need. The farmers would have needed capacity training, credit and inputs, and a guaranteed market for their produce, in order for any scheme to be successful (Bravo 2019). Deans, Ros-Tonen, and Derkyi (2018) conclude that for smallholder farmers in Ghana to access advanced cacao value chains would need collaboration between intermediary actors, certifying entities, the farmers, and other actors in the landscape. Some of the contract farming models could offer these.

Cashew

As global demand for cashew has increased in recent years, schemes for business partnerships with smallholders have increased along the trend. In an example from Ghana, Dubbert (2019), evaluated the potential of a contract farming scheme on local job creation and income generating potential, with an

emphasis on off-farm income, price margins for smallholders, and labor productivity. The partnerships relied on informal contracts and verbal agreements directly between the smallholders and the buyer company. Although the farmers in this case are not organized into cooperatives or other groups, there is a community effect. It was found that the likelihood of participating in the scheme increased significantly if there was another farmer in the scheme in less than 3km radius, insinuating a community effort. Previously, it was mentioned that farm size had an effect on whether farmers were able to join a contract farming scheme. Here, farm size had an inverse relationship with productivity, meaning that smaller farms had better relative yields, suggesting that the farm size aspect is context specific as well. In the end, participation in the contract farming scheme increased price margins, cashew yields, and revenue for smallholders. It decreased off-farm income due to increased farm activity for medium and large sized farms but increased for smaller farms.

Basset, Koné, and Pavlovic (2018) researched cashew nut value chains in Côte d'Ivoire as part of global markets. They explain how the cashew value chain is fragmented due to many levels of intermediaries between the grower and the regional buyer who are then selling to exporters or processors, which all add their profit margins to when selling to the next level. In this fragmented business landscape different levels often have contracts with the next level. For example, the regional buyer may have a contract with an exporter who has a contract with a buyer from a different country, making the system convoluted. The article criticizes the model because the valuable cashew export system in Côte d'Ivoire was built by smallholders without the input of donors or contract farming schemes by private companies who are now attempting to promote value-added activities.

In regard to value chain and valued addition, Krepl et al (2016) found that the existence of processing facilities has great potential in allowing for centralized contract farming schemes to function and flourish with cashew nuts in Tanzania. They do, however, insinuate that logistics may become a bottle neck in case if producers are living far away from the central processing hub. Similarly, Mole (2000) found that presence of processors, in addition to donors, NGOs, and the government, may be helpful in increasing the income of smallholder farmers and reduce poverty. Furthermore, Nyambo and Ligate (2013) are of the mindset that a flourishing cashew sector in Tanzania requires strong private-public partnership, especially in relation to market access and productivity. On the other hand, dependency on cashew only has its challenges as well. In Guinea-Bissau, it was found that a strong **dependence on a single cash crop**, cashew in this case, can compromise local livelihoods and even have a **negative impact on food security** (Monteiro et al. 2017).

Coffee

Looking at coffee production coffee in Rwanda, Ortega et al. (2019) have found that smallholders who have joined **cooperatives** have had better outcomes than farmers who have not. Specifically, increasing farmer capacity and adoption of improved technologies and inputs, mediated by the cooperative, have been essential in improving farmer welfare and productivity as well as generated income. Furthermore, collaboration with intermediaries or so called 'connective businesses' have the potential to decrease any transactional constraints for farmers or cooperatives (Borrella, Mataix, and Carrasco-Gallego 2015). This suggests the intermediary model with a contract embedding mutual trust and commitment between producer organization and a buyer may be beneficial for smallholders in the coffee industry.

In an example on an organic coffee contract farming scheme in Uganda, Bolwig, Gibbon, and Jones (2009) explain how certified organic coffee schemes have a **higher probability to increase farmer incomes** compared to non-certified, non-contracted farmers. Importantly, they found that farmer uncertainty decreased significantly with the market guarantees that come with the contract. In this scheme the

farmers were certified through group certification which paid by the company partner, and which was free for the farmers to join. Because of the certification, third party investigators visit and review selected farms and collection centers in order to maintain the organic certification. The company had contracts directly with the farmers and were willing to pay an unspecified premium price for “suitable quality,” making the certification profitable. However, Jena, Stellmacher, and Grote (2015) found that although farmers, as members of cooperatives, experienced higher yields and better prices, certified organic coffee production effect on household income was found not to be significant in a case study in Nicaragua. The study questions the efficiency and sustainability of such schemes, especially in relation to donor funding, as means to reduce poverty. Instead, they propose diversification and direct investments into agriculture as more effective means.

Cotton

Community development through a contract farming scheme is an intriguing topic worthy of exploration. Altenbuchner, Vogel, and Larcher (2021) claim that there are certain measures or categories of focus in cotton contract farming that are pertinent to community capital (human, cultural, social, political, natural, financial, and built capital) growth – the more investment or interventions were made in these categories, the more positive changes there were. Specifically, these categories of importance were: *the extent of the contract farming partnership, input support and community investment, capacity building, group building, and formation of cooperatives and associations.*

As mentioned in the previous chapters, contract farming may incorporate aspects of inclusive business and therefore also corporate social responsibility. This is the case with environmental degradation, the garment industry and cotton in sub-Saharan Africa as well as elsewhere (Bitzer and Glasbergen 2010). Contract farming schemes, often initiated by NGO or donor support, may focus on the production of organic cotton and poverty reduction. Generally, the partnerships can be divided into two main categories: ones where NGOs help with market linkages with cooperatives or other producer organizations, or ones where smallholders are contracted by cotton companies directly. The former is the preferred mechanism because it decreases the power of the cotton companies in dictating contracts, but unfortunately offer their own challenges with management.

One of the benefits of contract farming schemes is the access to inputs, but in organic cotton growing this access is not paramount since, for example, synthetic fertilizers are not allowed. For this reason, involving the cotton companies directly is less critical making the producer organization model more intuiting. On the other hand, the cotton industry is built on strong market policies, making it harder to establish cooperative farming with organic standards (Bitzer and Glasbergen 2010). Company-based project have an easier time to find market linkages due to their access to supply chains, whereas NGO or donor funded projects need an extra effort to create those links (Fayet and Vermeulen 2014).

Contract farming of cotton has become the dominant form of production in Zimbabwe. In this case, however, it was found that non-contracted farmers had an advantage and realized higher returns over contracted farmers due to their **ability to procure cheaper inputs without interest** (Mujeyi 2013). Regardless, independent farmers are not always able to procure needed inputs and therefore the contract farming model may be beneficial as a step towards self-sustenance and to be able to make independent decisions. Similarly, in another example from Zimbabwe, it was found that joining a contract farming scheme has decreased the challenges in having access to scarce and expensive inputs in rural farming communities (Musara et al. 2011). The farmers were, however, not satisfied with the **non-flexibility of the contracts** or with the price inconsistency that they received from the company for their cotton.

Mutambara and Mujeyi (2021) suggests that those behavioral uncertainties need to be reduced by strengthening private and public institutions.

Lentils

In relation to lentil production with a nucleus estate contract farming scheme in Ethiopia, Eshete et al. (2015) elaborate in how the agribusiness company contracts public and private farms, cooperative unions, and smallholder farmers in addition to having its own production. They found that for farmers, the system has been beneficial and allowed them to form farmer groups that have even developed into formal private seed companies. In Ethiopia the seed delivery system is generally reliant on the informal sector, but the success of such contract farming schemes with increased capacity building may increase the share of the formal sector and possibly increase access of farmers to the value chain.

Landscape, accessibility, and lack of amenities and markets may be limiting factors in any contract farming scheme. Due to these variables, contract farmers find it difficult to create market links, in the mountainous areas of Nepal. Kumar et al. (2016) explain how the lack of markets may also be beneficial to the contractor though, because that way there can be no side selling, an admitted challenge in many schemes, on the part of the smallholder. But at the same time this tips the balance of power more to the buyer side of the contract. As mentioned previously, farm size may be a contributing factor in whether or not a farmer can join a contract farming scheme. This has been the case with lentils in Nepal – the larger the size of the farm, the more likely they were to join. Also, access to a mobile phone was another limiting factor. Nevertheless, fortunately the exclusion factor did not lead to stratification among smallholders. It was found that contract farmers earned a significantly higher profits, had higher yields, and lower cost of production.

Palm oil

Demand for and therefore production of palm oil has increased rapidly over the last 50 years. With this increase many smallholder farmers have been forming diverse types of partnerships with agri-processors in various parts of the world. These demand and production dynamics produce **local environmental and social transformations** in addition to economic ones. The level of transformations in both positive and negative sense depends on “...the critical importance of **understanding the reality on the ground** before, during, and after the design phase and implementation...” (Bennett, Ravikumar, and Paltán 2018, 39). One factor in determining the transformations can also be certification and strong institutionalization of certification schemes (Dompreeh, Asare, and Gasparatos 2021; Hidayat, Glasbergen, and Offermans 2015).

In Indonesia, several contract schemes have been set up for smallholders to access global markets, where well-designed partnerships have been able to benefit the local communities (Gatto et al. 2017). In Cameroon, palm oil was found to be profitable for smallholders, but **land ownership** was seen as a key determinant in financial viability. Additionally, processing capability of fresh fruit bunches on the farm level was seen as increasing income opportunities (Ayompe et al. 2021). In another case in Cameroon, the success of a joint venture palm oil scheme with a cooperative and an agribusiness company, was dependent on mutual trust and transparency based on a contract that was negotiated between the stakeholders in a participatory way. Furthermore, it was seen that the company should have a dedicated person or department to act as a liaison for smallholders (Djouma et al. 2018). Nevertheless, smallholder position in palm oil value chains in Cameroon is precarious due to the **lack of ruled and balanced relationships** between the producers and the agribusiness companies, only to be remedied by the establishment of clear public policies (Nkongho, Feintrenie, and Levang 2014).

Palm oil, as non-food cash crop, is a lucrative way of moving from subsistence to commercial farming, but its effect on food security improvement is ambiguous. In Ghana, where most palm oil is produced by smallholders (Khatun et al. 2020), a nucleus-estate model is rather common. It has been found that certified palm oil production in a nucleus-estate model may increase livelihoods and yields but the effect on food security has been marginal due to the lack of emphasis on that aspect in the certification guidelines (Dompheh, Asare, and Gasparatos 2021).

Palm oil business partnerships have the potential to provide stable income but the focus on export and larger markets may negatively affect local level markets, exacerbating inequalities where women, poorer farmers, and farmers with smaller plots risk losing access to markets or are excluded from partnerships (Khatun et al. 2020). As other authors have suggested also, Ofosu-Budu and Sarpong (2013) are adamant that if a nucleus estate model is the model that is followed in West Africa, then any project or scheme that is established need to be done so in a **participatory manner**. The smallholders need to be subjects and not objects of the partnership. They suggest further that a joint asset ownership should be increased for commitment purposes, and that smallholders need to be supported by all stakeholders for environmental sustainability purposes.

Sugar

Characteristic to sugarcane contract production is that sugar companies and mills often are located at the proximity of the field plots. This may imply that the factories request contiguous land areas to be allocated for production which mean that the surrounding farmers are **forced to join**, as in Ethiopia, or they are to allocate their most fertile and well-resourced land areas under contract which may compromise HH's food production (Dal Belo Leite et al. 2020).

Despite the proximity of the factories to the field plots and farmers, severe information asymmetries and lack of transparency between the factory and the farmers have been reported, for instance, from Mozambique (Dal Belo Leite et al. 2020) and Ethiopia (Wendimu, Henningsen, and Gibbon 2016), leading to severe **distrust** among the actors.

In Mozambique, the payment was based on production quantity and sugar content, yet the international prices fluctuations affected the price. However, the **farmers did not have the complete information and understanding** on the international sugar prices and investment capital needed in clustering fields to optimize resource use (Leite, Leal, and Langa 2017). In Ethiopia too, Wendimu, Henningsen, and Gibbon (2016) reported **lack of transparency** of the sugar factory in defining the price. Farmers felt that the price underestimated production costs and did not take into consideration the sugar cane byproducts that provided economic advantage to the factory. Leite suggested an intermediary body to act as a mediator between the company and the farmers to avoid such contradictions.

Related to sugar, there is quite some discussion on social differentiation and marginalization of smallholders. Herrmann (2017) and Sulle (2017) have reported from Tanzania, that capturing the most lucrative business opportunities and the required land, large-scale producers contribute to **marginalization of smallholders**. Also, large-scale producers targeting the domestic market, due to oversupply, may push small-scale farmers and local processors out of market. Adams et al. (2019) conclude that "contract farming changes rural agrarian relations, transforms local family institutions by carefully selecting a few household members with influence into the scheme and selectively dispossessing the poor community members".

Increasing demand for land may also reduce land availability and even cause conflict. Political contestations and social conflicts have been reported from Zambia (Matenga 2017) and from Tanzania and Uganda (Martiniello and Azambuja 2019).

On a positive side, big sugar companies, present at the location, can be in a position to influence the communal wellbeing outside of farming households. In Mozambique the sugar mill participated in the **community development** by providing education and health care to community members (Leite, Leal, and Langa 2017). Large agribusiness companies may also have the chance to **influence the policies** for (smallholder) producers' benefit and offer employment for the landless, however, the wages needed to increase to have an impact on poverty reduction on the long term (Herrmann 2017).

6. Recommendations

What is important to note that there is no panacea that would solve all smallholder business partnership challenges universally due to the variety of contexts, in business environments, environmental conditions, operational models, organizational level of smallholders, company policies, governmental policies and so on. The variability in the structures of the partnerships further complicates a holistic evaluation, thus any clear-cut answer as to what the optimal system for creating win-win situations has to always be **context specific**. That being said, there are several take home messages and recommendations that have emerged in the process of this desk review that may offer guidance for **risk mitigation**.

6.1 Contract Specifications and Eligibility Criteria

In order to have a successful business partnership between smallholders and agribusiness companies, there are certain aspects that need to be considered when designing the contracts for such partnerships. Independent of the model or structure, the contract is an important document where all the conditions of the arrangement are explained, and it should be clearly understood by all parties before signing (Mujeyi 2013; Mwambi et al. 2016). Making sure of this may avoid future disagreements or legal issues due to contract breaches, for example.

Table 3. underlines specifications that are commonly used or suggested to be used in any agribusiness partnerships between companies and smallholders. As can be seen the two provided lists share similarities - one going further into detail and the other remaining more general. It does then seem that the suggested specifications are commonly found in the contracts. It should be noted that this does not show what those details are or who has been present in the formulation process, but it does show that in principle, the themes are usually there.

Table 3. Smallholder and agribusiness partnership contract specifications. Adapted from Melese (2012) and Eaton and Shepherd (2001).

Commonly found contract specifications (Melese 2012, 297)	Suggested contract specifications (Eaton and Shepherd 2001, 68)
Duration of contract	Contract duration
Contract quota	Production quotas
Quality specifications and grading system	Quality standards
Quality control (when, how, who is responsible, who pays)	
Cultivation / raising practices required by the contractor	Cultivation practices
Time of delivery	Crop delivery arrangements
Conditions of delivery	
Pricing formula (such as fixed prices, flexible prices based on particular (spot) markets, consignment prices, or split prices)	Pricing arrangements
Methods and time of payment	Payment procedures
Risk sharing system/insurance	Insurance arrangements
Logistic support	
Technical assistance	
Repayment term of input loan and timing of input credit supply	
Credit facilities to farmers	

Each of the previous specifications may be different in each contract but all of them provide a backdrop to which both the company and the smallholder can base their activities on and rely that the system functions properly. Further specifications may relate to training on agronomic or other matters, and which institutions, public entities, NGOs or any other are responsible for, if any, aspects of the partnership. The negotiation of the contract should include producers and/or producer organizations in order to be more inclusive and to avoid any unclear terms that could hinder the process (Mwambi et al. 2016). This also increases trust and transparency, both values that are seen as keys for any functional business partnership (Isriya and Akkanee 2021).

Furthermore, any **eligibility criteria** need to be pre-defined before entering the partnerships and make them clear to all participants. As mentioned earlier, these criteria, depending on how they are designed, may have the potential to exclude certain smallholders. Therefore, it is important to decide what level of inclusion is important to the scheme and what type of limitations there possibly are that could hinder smallholder participation. The criteria need to be very context specific since it can entail agronomic and

other matters that are not universal. For example, the following criteria have been suggested (Narayan, Sanhita, and Hemanta Kumar 2016; Schüpbach 2014):

- Access to irrigated land
- Access to agronomically suitable land
- Road access
- Literacy level
- Health status
- Age

In addition to eligibility criteria, one should think about farmer willingness, which may increase if certain attributes are embedded in the design. These include but are not limited to a written form, input inclusion, technical assistance, supply of seed variable output quality and price options (Abebe et al. 2013). For this purpose, farmer or producer organization inclusion in the negotiations is important.

6.2 Increasing Chances of Success and Mitigating Risks

In addition to the previously mentioned criteria and contract specifications there are several further matters that need to be considered when establishing a new partnership or evaluating a pre-existing one. Table 4 contains two sets of key matters from literature that should be taken into consideration to increase the chances of success. Essentially, these are factors to keep in mind in order to mitigate any risks. The lists bear similarities to each other, some with different terms but at the same time complement each other. It should be noted that some of factors here are also similar to some of the contract specifications. This is important because it means that the design of the contract may then be even more crucial than anticipated.

Table 4. Key factors to determine success of business partnerships between smallholders and agribusiness companies. Adapted from Kirsten and Sartorius (2002) and Fisher and Roberts (2017)

Factors to determine success from Kirsten and Satorius (2002)	Nine principles of success from Fisher and Roberts (2017)
Screening of farmer partners	Farmer selection
Take into consideration the historical and institutional legacies that have shaped local conditions	Creating an enabling environment
Products with higher levels of mechanization and lower levels of labor input may be more suitable	A market driven approach
High value per hectare and the need for post-harvest facilities	Long-term sustainability and scaling up
Mutual asset specificity, raising exit costs leading to more stable relationship	Commercial and financial viability
Location of growers in relation to processing facility (and other logistical issues)	Input support
Reliable input supply to avoid side selling or other issues	Risk mitigation
Well-developed legal system to ensure contract enforcement	Farmer training
Professionally managed contractual relations and mutual trust	Management tool
Farmer interests represented in negotiations	
Agribusiness partner coordinating access to inputs, services (including training on financial and agronomical matters), and facilities (such as for conflict resolution).	

Additionally, strengthening of farmers’ organizations, promoting **exposure visits**, ensuring a **favorable policy environment**, fostering **harmonization of standards**, and improving **infrastructure** are significant topics that should be thought of (Strohm and Hoeffler 2006). The point on infrastructure is pertinent, since contract farming schemes are often concentrated on areas with easy access (Dubbert 2019; Altenbuchner, Vogel, and Larcher 2021). Mutual trust may be hard to build unless there has been **long term collaboration** between the partners. Therefore, to build up trust, any new partnerships should be designed to be long term from the start (Altenbuchner, Vogel, and Larcher 2021), and there should be emphasis on **open communication and transparency** (Prowse 2012; Isriya and Akkanee 2021).

Some other important conditions for smallholder success, here meaning higher incomes and a stable business relationship, are **supportive state policies**, producer organization action, **support from NGOs or donors**, a **balanced power relationship**, and that there is a **seller’s market** (Bijman 2008). **Farmer groups**

and cooperatives can play a role in agricultural producers overcoming issues such as high production costs, low productivity, low producer prices, and reinforcing sectoral growth, all possibly increasing the chances of business partnership success (Ortega et al. 2019). It is emphasized though, that the farmer organization has to be strong in order for it to provide the necessary benefits (Isriya and Akkanee 2021).

In addition to the topics mentioned above, there are others that focus on what should not be done or what should be avoided. For example, pricing system should not be inappropriate for farmers, input supply should not be inadequate, the partnership should not be inflexible, farmers should not be excluded from decision making, inputs or credit should not arrive late, seed should not be unavailable on the market, and weak enforcement of contractual laws should not appear (Musara et al. 2011).

Risks

Private sector investments in agriculture and agriculture production itself always include some risks. Therefore, it is not possible to prepare a comprehensive risk map with mitigation measures as it would lack comprehensiveness from the beginning.

However, according to the reviewed literature the various risks an individual smallholder is facing, can often be mitigated by smallholders organizing themselves into farmer owned business organizations. The farmer owned producer organizations can be associations, trusts, or enterprises, such as cooperatives. Another commonly used mitigation measure for smallholders is the participation in contract farming, although contract farming itself also includes risks. Annex 1. provides a framework checklist that can be used to estimate, avoid, and mitigate possible risks that agribusiness partnerships may contain.

7. Conclusion

To conclude, throughout the review the focus has been on smallholder farmers and agribusiness company partnerships. These types of partnerships are hailed as potentially win-win situations where both the smallholder as well as the company benefit, or even as win-win-win situations where the surrounding society or community is included as a winner. After a thorough review, the researchers have found that this indeed may be the case; there is potential for a win-win outcome, but it requires that the partnerships are well designed and takes into consideration numerous factors that are context specific. There is no silver bullet solution for the model of the partnership or the design of the contract. Whether, for example, an intermediary model is more successful than nucleus estate model, or vice versa, cannot be stated as fact. It depends on the context. But as we have seen in the previous chapter, there are multiple recommendations that can be considered that will most likely benefit the partnership and therefore the income and food security status of smallholder farmers, their communities, and the agribusiness companies involved in the partnership. Annex 1. contains the framework tool that can be used to analyze pre-existing or yet to be established smallholder and agribusiness company partnerships from multiple points of view.

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9. Annex 1. Framework for Assessing Smallholders' Integration into Agribusiness Partnerships

Framework for Assessing Smallholders' Integration into Agribusiness Partnerships				
A. Eligibility Criteria	Yes		No	
1. Farmer selection				
2. Land ownership				
3. Inclusion of smallholders				
4. Age				
5. Access to irrigation (if applicable)				
B. Key Contract Specifications	Yes		No	
1. Written contract with signatures from all sides				
2. Contract duration				
3. Quality standards, specifications, grading				
4. Quality control				
5. Crop delivery arrangements				
a. Conditions of delivery				
b. Time of Delivery				
6. Pricing arrangements				
7. Payment procedures, including timing				
8. Insurance arrangements				
9. Cultivation practices				
10. Input procedures (seed, fertilizer, etc.)				
11. Credit procedures				
12. Logistic support (transfer of goods)				
C. Key Factors for Success	<u>Lo</u>	<u>Med</u>	<u>High</u>	
1. Inclusive negotiations	1	2	3	4 5
2. Understanding of contract	1	2	3	4 5
3. Balanced power relationship	1	2	3	4 5
4. Mutual trust	1	2	3	4 5
5. Open communication	1	2	3	4 5
6. Transparency	1	2	3	4 5

7. Enabling and favorable policy environment	1	2	3	4	5
8. Farmer organization presence	1	2	3	4	5
9. Exposure visits	1	2	3	4	5
10. Infrastructure improvement/development	1	2	3	4	5
11. Harmonization of standards	1	2	3	4	5
12. NGO or donor support	1	2	3	4	5
13. Seller's market	1	2	3	4	5
14. Timeliness of inputs	1	2	3	4	5
15. Timeliness of credit	1	2	3	4	5
16. Timeliness of payments	1	2	3	4	5
17. Enforcement of contract laws	1	2	3	4	5
18. Lack of side selling	1	2	3	4	5
Total	___ out of 90				
D. Impacts to Food Security					
1. Gender effects					
2. Smallholder income					
3. Food security (availability and access of food)					
4. Dietary diversity					
5. Community effects					
6. Community investments					
7. Short term / long term effects					
8. National effects					

10. Annex 2. Guide to the Framework for Assessing Smallholders' Integration into Agribusiness Partnerships

This annex will provide guidance in the use of the “Keys to Success -Framework.” The purpose and meaning of each section and subsection will be explained below. The first two sections have yes or no answers that can be checked either on location or from distance. The third section has a Likert scale from 1 to 5, from low to high. This scale can be used to as a quantitative tool in evaluation of business partnerships between smallholder farmers and agribusiness companies. This section may require on location interviews, or it could be used as a base for a survey to be completed.

A. Eligibility Criteria, Yes/No

This section focuses on the eligibility criteria that has been or will be set in regard to the business partnership. It essentially describes who is able to join the partnership. As the review has shown there are inclusion and exclusion aspects that should be considered when thinking about eligibility criteria. Eligibility criteria are **always context specific**. You can add more items as needed.

1. Farmer selection – Are there any general farmer selection guidelines used in the process of setting up the partnership?
2. Land ownership – Is formal land ownership a requirement for joining the partnership?
3. Inclusion of smallholders – Are smallholders with smaller plots of land eligible for joining the partnership?
4. Age – Is age of the farmer considered in the eligibility criteria?
5. Access to irrigation – Is access to irrigation considered as an aspect in the eligibility criteria?

B. Key Contract Specifications, Yes/No

This section focuses on the specifications that are or are not present in the contracts between smallholders (or producer organizations) and agribusiness companies. The contract is at the heart of the partnerships and therefore an important aspect to consider in evaluation any partnership.

1. Written contract with signatures from both sides. – Is the contract a written agreement signed by both parties? How is it ensured that the smallholder has understood the contract including its annexes?
2. Contract Duration – Is the length of the contract specified?
3. Quality standards, specifications, grading – Are any quality standards for the products specified?
4. Quality control – Is the way quality control enforced specified?
5. Crop delivery arrangements
 - a. Conditions of delivery – Are the conditions (where, how, etc.) of delivery specified?
 - b. Time of Delivery – Is the time of delivery specified as a certain time window or other?
6. Pricing Arrangements – Are the pricing arrangements (how price is determined) specified?
7. Payment procedures, including timing – Are payment details specified?
8. Insurance arrangements – Are insurance options, opportunities, etc. specified?
9. Cultivation practices – Are cultivation practices (how, when, what) specified?
10. Input procedures (seed, fertilizer, etc.) – Are input procedures (are inputs included, are they given or is there credit involved, etc.) specified?
11. Credit procedures – Are any credit procedures (interest rates, timing, etc.) specified?

12. Logistic support (transfer of goods) – Is transport included in the contract?

C. Key Factors for Success, Likert scale, 1 to 5

This section focuses on the factors that have been deemed important for any successful business partnership between smallholder farmers and agribusiness companies. These suggested topics require a more in-depth evaluation than the two previous sections. A Likert scale is used in this example as a way to allow comparison between evaluations. This is not, however, mandatory and the questions can be used as they are, without scaling. Furthermore, it may be beneficial to include comments from these questions in any evaluation. Some guiding questions for each of the topics are provided below.

1. Inclusive negotiations
 - When planning for the partnership to be established, were smallholder farmers, as the contracted party, included in the negotiations?
2. Understanding of contract
 - Did all parties understand the details of the contract and to what extent? Where there any parts that were too vague or not clear? This could be about credit interest rates, quality requirements, price setting or any other matter.
3. Balanced power relationship
 - Do both parties feel that they are listened, that their voice matters in the partnership and to what extent? In a balanced power relationship, both parties feel equal in this type of matters.
4. Mutual trust
 - Do both parties trust one another within the confines of the partnership?
5. Open communication
 - How open are the communication lines between the parties? Are the smallholders or their representatives able to contact the company side on any issue without difficulty?
6. Transparency
 - How transparent is the partnership? Are smallholders aware of what the products are used for, what price are they sold at, etc.?
7. Enabling and favorable policy environment
 - Are there any difficulties for the partnership or either party in setting up or operating under the partnership? Is the local government supportive of partnerships and to what degree?
8. Farmer organization presence
 - Are there farmer or producer organizations present in the partnership? How involved are they as partners?
9. Exposure visits
 - Have exposure visits for smallholders, and smallholder organizations, been planned to increase willingness to join, sharing practices, or for any other reason? Do they happen often, not enough, never?
10. Infrastructure improvement/development
 - Are there any plans for infrastructure improvement (road access, etc.) to make logistics easier for smallholders? To what degree?
11. Harmonization of standards
 - Has there been plans to harmonize production standards, through certification or other means? To what degree are the plans realized?

12. NGO or donor support
 - Is there any NGO or donor support included in the partnership and to what degree is this providing useful (if it is)?
13. Seller's market
 - Is the market analyzed before setting up the partnership? To what degree is there a seller's market?
14. Timeliness of inputs
 - To what extent are the inputs delivered on time for planting?
15. Timeliness of credit
 - To what extent is credit provided in time to make use of it in production?
16. Timeliness of payments
 - To what extent are payments to the smallholders for their products provided on time after delivery?
17. Enforcement of contract laws
 - To what extent are the contract laws enforced in the partnership?
18. Lack of side selling
 - To what extent is side selling curbed in the partnership?

D. Impacts to Food Security

The following themes and question are meant to assess the impact of contract farming to food security at different levels from various angles.

All the questions are not necessarily relevant in every case and location, or they might be difficult to assess and might need a survey, or similar, to be conducted in the community. These questions, however, guide the user to think of the various aspects of food security and lead the user in taking a wider perspective to the issue. However, as explained in the narrative in the section on food security earlier, by assessing the impact only based on income and dietary diversity, may not be sufficient in assessing sustainable, long-term impacts to farming households and communities. Follow-up assessments on the matter are thus recommend.

If needed and helpful, it is possible however, to develop at least some of the questions further to include and valuation scale, as in the earlier sections.

19. Gender effects
 - Have issues regarding gender been evaluated during the establishment of or during the partnership?
 - To what degree have they been evaluated? Furthermore, in evaluations of ongoing partnerships, it is important to also recognize that negative gendered effects may already be appearing and need to be given attention. (Please refer to "Gender relations and food security" under section 5.6.)
20. Smallholder income
 - Has the partnership facilitated increase in smallholders' income?
 - How much has smallholder income increased due to the partnership?
 - Is there a risk of market saturation causing negative economic impacts to farmers?
 - Are the household incomes of participating farmers, non-participating farmers and landless people sufficient for purchasing foods from the market?

21. Food security (availability and access of food)
 - Is the crop under the contract produced locally? If no, the risk for negative impact is increased.
 - Have the farmers had the freedom to decide which parcels of which size they allocate for contract farming?
 - Does the contract arrangement increase food availability at the local market?
 - Have the food access related issues been analyzed? This relates to physical access to the market and selection of food items available at the market, for instance.

22. Dietary diversity
 - Is the crop under the contract consumed locally? If no, the risk for negative impact is increased.
 - Is the contractor aware of the traditional crops under cultivation in the community?
 - Has the partnership caused any move from traditional crops to cash crops and to what degree? This may change the intra-household gender relations so that the management and decision-making power of women, if responsible for traditional crops, decreases in the household.

23. Community effects
 - Is it guaranteed that all type of farmers can participate?
 - What type of benefits, if any, is the contract farming system bringing to non-participating farmers? What type of disadvantages?
 - Are the potential impacts to local market functioning being analyzed?
 - Is there a risk of market fluctuations caused by contract farming arrangements which can influence the whole community? How can this risk be mitigated?
 - Is the contract farming creating employment to non-participating / landless people?

24. Community investments
 - What type of community investments, if any, have been done or are being planned to be done during the partnership? This can include for example investments to education and health care.

25. Short-term / long-term effects
 - Is there a risk that the positive short-term impact to food security and income overrule the negative impact in the long run? Negative effects can include decreased soil fertility or increased exposure to pests and other shocks, for instance.
 - How are these risks mitigated?

26. National effects
 - Is the contract farming site located in an already better-off and easy-to-access area of the country?