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Contract Farming, Rural Livelihoods and Development in Sub-Saharan Africa

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Abbreviations

| | |
|---------|--|
| COTTCO | The Cotton Company of Zimbabwe |
| EAGA | East African Growers Limited |
| FANRPAN | Food Agriculture and Natural Resources Policy Analysis Network |
| FAO | Food and Agriculture Organization |
| GDP | Gross Domestic Product |
| IMF | International Monetary Fund |
| LINTCO | Lint Company of Zambia |
| NGOs | Non-Governmental Organisations |
| NIEs | New Institutional Economics |
| SAPs | Structural Adjustment Programs |
| SSA | Sub-Saharan Africa |
| TNCs | Transnational Corporations |

1. Introduction

The majority of poor people in the world live in rural areas and are dependent on agriculture for their livelihoods and sustenance. Nevertheless, the agricultural sector has often been neglected as an important mechanism for reducing poverty and promoting development (World Bank, 2008; United Nations, 2009).

The Sub-Saharan economy is one of the poorest in the world. The struggle towards food security¹ and poverty reduction in rural areas is made difficult through factors such as low agricultural productivity. In Sub-Saharan Africa (SSA) (excluding South Africa) the average agricultural share in gross domestic product (GDP) is 34 percent and 64 percent in employment, reflecting the low productivity in agriculture. Small-scale farmers lack access to important determinants of agricultural performance such as markets, credits, inputs and basic infrastructural facilities. Contract farming can improve smallholders' access to these assets (Eicher and Staatz, 1998; World Bank, 2008).

Contract farming builds upon a contract between a farmer and a firm with an agreement that the firm will buy the farmer's produce in order to process or market it. Throughout the years it has been an important part of successful income generating schemes for smallholders in Africa. Contract farming has also been a widely used development strategy in consistency with development projects orientated towards the private sector. Though major successes have been recorded, there is also evidence of contract schemes without positive consequences for the smallholders (Grosh, 1992). In addition, the share of contract farming in total farming is high in some developing countries, for example Kenya and Zambia (United Nations, 2009). Therefore it is of importance to further investigate the consequences of contract farming on small-scale farmers' livelihoods and rural development.

Contract farming is a controversial subject in the discussion on rural development in Africa. While some argue that contract farming can help poor farmers to raise their income and escape poverty, others are more sceptical and emphasize the dependency of farmers on contracting firms. The large literature² shows that the interest for contract farming has increased among policy makers, researchers and development economists in recent years (Da Silva, 2005).

¹ Food security exists when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Food and Agriculture Organisation (FAO), 1996).

² See for example: Little and Watts (1994), Porter and Howard (1997), Eaton and Shepherd (2001) and Minot (2007).

1.1 Purpose of the Study

The purpose of this study is to examine the main features of contract farming in SSA and analyse the consequences of it for rural livelihoods and development. Three research questions have been outlined:

- What are the main characteristics of contract farming in Sub-Saharan Africa?
- Does contract farming contribute to the improvement of sustainable rural livelihoods through an enhancement of capital assets?
- What are the risks for small-scale farmers involved in contract schemes?

These questions complement each other such that the first aims at giving an overall picture of contract farming, the second question concerns the positive effects of contract farming on livelihoods and the third relates to the negative consequences it might have for smallholders.

In order to accomplish the purpose of the study, relevant case studies from secondary sources are used. These have been chosen in consideration to what extent they discuss the impact of contract farming on small-scale farmers. A qualitative analysis of these case studies is then applied and the results for each question are discussed. Based on the analysis, answers to the research questions are presented and conclusions are drawn.

The main conclusion in this paper is threefold. Contract farming schemes in SSA have many common characteristics even though there are several variations. The contributions of contract farming to farmers' opportunities to build livelihoods are many but it is also important to note that there are a number of risks for the farmers and these must be taken into consideration when evaluating the effects of contract farming on rural livelihoods and development.

1.2 Limitations

Contract farming is prevalent in a number of different value chains and products. In this study, the focus is on the crop sector, hence livestock and dairy farming is not included. The number of countries is also limited due to the availability of empirical data. The thesis builds upon case studies from Zambia, Nigeria, South Africa, Malawi, Kenya and Zimbabwe.

The paper analyses how contract farming impacts rural livelihoods by using the sustainable rural livelihood framework. The framework is rather comprehensive and complex. Hence, in order to be appropriate to the scope of the paper, only one particular part of it is used in the analysis, namely *the aspect of capital assets*. In order to obtain a multifaceted analysis, the risks for farmers participating in contract schemes are also examined.

Even though this paper focuses on contract farming and how it contributes to sustainable rural livelihoods and rural development, it should be remembered that there is a tendency of livelihood diversification. Rural people do not only depend on agriculture for their income but also engage in other activities in order to make a living. Hence, the perspectives presented in this paper are only one part of the complexity of rural livelihoods.

1.3 Disposition

The structure of the paper is as follows: Chapter 2 defines contract farming, in addition to a short discussion of the contents of contracts. The chapter also gives a broad historical review of the subject as well as a contemporary overview. Furthermore, the theoretical framework of contract farming is outlined and the major models and functions are described. Chapter 3 considers rural development. It gives a short background to the subject and continues with an explanation of the sustainable rural livelihood framework. Chapter 4 presents the main characteristics of the case studies and gives an answer to the first research question. Chapter 5 and 6 seek the answers to the two remaining research questions of the paper through an analysis of the case studies. Finally in chapter 7 the conclusions of the thesis are presented and discussed.

2. Contract Farming – Definition, Overview and Theory

2.1 Definition of Contract Farming

Although the definition of contract farming varies among authors, the basic implication is essentially equivalent. Glover and Kusterer (1990:4) define contract farming as “those contractual arrangements between farmers and other firms, whether oral or written, in which non-transferable contracts specify one or more conditions of marketing and production”. This implies that there are two parties committing to complete different undertakings in favour of the other participant in the contract. The definition involves a broad spectrum of contractual arrangements and does not specify particular details.

A more informative definition of contract farming is used by Little and Watts (1994:9). They define it as “forms of vertical coordination between growers and buyers-processors that directly shape production decisions through contractually specifying market obligations (by volume, value, quality, and, at times, advanced price determinations); provide specific inputs; and exercise some control at the point of production (i.e., a division of management functions between contractor and contractee)”. In contrast to the former, this definition includes more specific information about what a contract may enclose and it also states that contract farming is a form of vertical coordination.

Agribusiness refers to private-owned firms involved in activities of production, processing or marketing of agricultural goods and services (Glover and Kusterer, 1990). Furthermore, the term out-grower scheme is usually used interchangeably with contract farming. In those cases where they are differentiated, contract farming more commonly refers to private interests while out-grower schemes imply the involvement of public enterprises. Others argue that out-grower schemes are used in the context of Africa (Bijman, 2008). However, in this paper the two terms are used synonymously.

The content of a contract depends on a number of factors. Table 1 gives an account of the most common stipulations in agricultural contracts (Bijman, 2008). As can be seen in the table there are several conditions, however, contracts vary from informal and perhaps oral contracts with few conditions to written contracts constituting very specific requirements for the agreement. Furthermore the contracts include provisions for the farmers and the contracting firm.

Table 1: Provisions often found in agricultural contracts

- the duration of the contract
- the quality standards to be applied
- quality control (when, how, who is responsible, who pays)
- the quantity that the farmer is obliged or allowed to deliver
- the cultivation / raising practices required by the contractor
- the timing of delivery
- packaging, transport and other delivery conditions
- price or price determination mechanism (such as fixed prices, flexible prices based on particular (spot) markets, consignment prices, or split prices)
- technical assistance
- procedures for paying farmers and reclaiming credit advances
- insurance
- procedures for dispute resolution

Source: Bijman, 2008.

2.2 Historical Perspectives on Contract Farming

Contract farming is not a recent phenomenon, but has been present around the world for centuries. It was a widespread practice in ancient Greece, where a certain percentage of crops were used to pay rents and debts, and in China different forms of sharecropping³ were used during the first century. In the beginning of the 19th century, European powers established formal agreements between farmers and firms. A project from Sudan, where farmers were contracted to grow cotton as part of a land tenure agreement, has been used as a model when smallholder contract schemes have been developed in modern times (Eaton and Shepherd, 2001).

Contract schemes have had an important role in the agricultural sector in the United States and Western Europe from the 1930s and onwards. However, since the 1970s contract production has spread to developing parts of the world. The contract production in these regions has a twofold origin. Contract farming complements and replaces plantations and estates from the colonial times. In addition, contract farming is a result of independent smallholders producing a variety of commodities for consumption and export under state or private auspice. Watts argues that contracting has “emerged as an essential means by which the agro-food system has been both internationalized and restructured” (Watts, 1994:36-37).

³ Sharecropping is when a peasant farmer cultivates the landowner’s land in exchange for some of the output (Todaro and Smith, 2006).

During the 1970s the development agenda focused on targeting the rural, poor small-holders through basic needs approaches and integrated rural development initiatives. However, in the 1980s the perception of African agriculture changed and the new fashion on the development agenda included market-led growth, privatization and increased exports. Contract farming was used as a tool for transforming the rural sector in Africa. In the new order of development consisting of Structural Adjustment Programs (SAPs) imposed by the International Monetary Fund (IMF) and the World Bank, contract agriculture was part of reform programs promoting export diversification. In the early 1990s, contract farming increased in attractiveness because it was seen as a complement to the emphasis on market-led growth and the private sector (Little and Watts, 1994). Woodend (2003) argues that there has been a change in the incentives for contract farming. It was previously supported by donor agencies and governments to foster national development. However, these schemes were seldom very successful and the contemporary thinking emphasizes the commercial aspects of contract farming and advocates for a private sector led development if contract farming should be efficient and sustainable in the future.

Different types of contract farming are prevalent in all parts of the world. Developing countries have experienced an increase in contract farming in recent years and there are indications that this trend will continue. One reason is that food trade is one of the industries that grow fastest in the world today, in particular processed food. Large food enterprises develop their businesses in all parts of the world and organize producers on plantations and farms in order to produce goods for the higher value markets (McMichael, 2004). Another motive is that the role of the state is decreasing and thereby it has less opportunity to assist farmers with services related to markets, inputs and technical support. A third factor is the determination of donor agencies and Non-Governmental Organisations (NGOs) to help smallholders get access to markets (Minot, 2007; Bijman, 2008). In the last period of time there are also indications that contract farming, as a way for Transnational Corporations (TNCs) to participate in agriculture in developing countries, is growing (United Nations, 2009).

Contract farming has long been equal to agriculture based on centralized out-grower schemes producing “world” commodities such as cocoa and tea. However, contract farming in modern times includes a much larger variety of goods which are related through “grade” and “quality” standards (Watts, 1994). As a consequence of the globalisation process and the liberalisation of trade, the agricultural exports have changed in composition. Trade in fresh fruits and vegetables has increased, while traditional commodities such as cocoa and coffee have become less important. The share of processed agricultural products in relation to commodities has increased from some 25 percent in 1970 to some 58 percent in the end of the 1990s (Da Silva, 2005:6).

2.3 Why is contract farming applied?

It would be unproductive to try to outline a general theory of contract farming since there is a wide variety of actors, crops, production relations and institutional frameworks involved (Little and Watts, 1994). There are also several reasons why contract schemes are initiated. Firms are seeking to increase their supply of high quality products and to raise the efficiency of the utilisation of assets. In addition, states are sometimes interested in promoting particular commodity chains (Bijman, 2008). However, an attempt of summarizing a theoretical framework of contract farming will follow in section 2.3 and 2.4. In this first section the economic aspects of contract farming will be discussed and in the second different models and functions that contract farming can have are described.

Industrial organisation can be described as having two extremes of vertical coordination; spot markets and vertical integration. The former is when the seller and the buyer meet and decide the price and the product is delivered directly. In spot markets there is no continuing commitment between the participants in the transaction. This is a common organisation of agricultural product chains on the local level. Vertical integration means that production and processing are performed within the same firm. The firm controls two or more stages in the value chain of the commodity. The outcome implies better control for the processing firm. A certain degree of vertical coordination is a prerequisite for a functioning market. There must be a coordination of supply and demand among different participants such as producers, processors and buyers. Contract farming is an intermediary form of these two extremes (Grosh, 1992; Da Silva, 2005; Minot, 2007).

The New Institutional Economics (NIE) is frequently used as a tool for explaining why contract farming is applied in agriculture. The main argument in NIE is that all transactions between parties involve costs, commonly known as transaction costs, which include for example costs of finding a market, negotiating and signing a contract. The main causes to the transactions costs are often asymmetric information and uncertainty. These two factors are interrelated. Participants in a transaction never have the full information in order to make an optimal decision about the agreement. Producers know more about the quality of the product while buyers have better knowledge about the marketing conditions. The higher the asymmetric information, the higher the transaction costs. In developing countries the public services for farmers are often rather limited and thereby transaction costs for them are higher. When contract farming is applied, smallholders have a guarantee that their products will be purchased and there is some certainty of income. For the contractor, the risk of bad quality products can be reduced by including standards of quality in the contract. In conclusion, when vertical coordination is needed between the production and the processing/marketing, then contract farming can reduce transaction costs and uncertainty and thereby be a more economically efficient alternative compared to spot markets (Da Silva 2005; Bijman, 2008).

The motivation of farmers to enter into contractual arrangements varies. From a study of contract farming in Zimbabwe, Masakure and Henson (2005) find four reasons why farmers engage in contractual arrangements: mitigation of uncertainties on the market, indirect benefits of the skills acquired, source of income and prestige. In a paper by Guo et al. (2005), price stability and market access are identified as major motivations by farmers. Minot (2007) sets out a framework for the conditions under which contract farming is profitable for both growers and buyers. The first factor is the buyer. In a contract scheme, the buyer is more likely to be a large-scale processor, exporter or super-market chain. Second, the probability that contract farming will be applied depends on the type of agricultural commodity. Products that have an economically important quality variation, a high perishability or require a technically difficult production are more likely to be involved in contract schemes. The third factor is the destination market for the commodity. The more quality sensitive the destination market is, the higher incentive for vertical integration.

2.4 Forms and Functions of Contract Farming

As has been clarified earlier, contract farming is an agreement between a contractor and a farmer. The contractor can be a firm, private or public, focusing either on processing or marketing and trading. The farmer commits to supply a predetermined quantity of a specific commodity and of a certain quality standard, while the contractor assists the farmer in the production and agrees to buy the commodity. In order to investigate the concept of contract farming further, this paper will continue with an account of five different models of contract farming that are distinguished by Eaton and Shepherd (2001) and Bijman (2008).

1) *The centralized model* is usually conceived as the classical contract farming model. The model consists of a centralized processor purchasing commodities from a large number of contracted smallholders. It is vertically coordinated and there are usually strict quality controls of the products. The commodities in these schemes often require a high degree of processing, for example tea, coffee, sugar cane and cotton, and the involvement of the contractor in the production varies from a strict control of the process to very limited participation. Contractors often prefer to contract large farmers because of economies of scale in the processing and the requirement of uniform products.

2) A variation of this model is *the nucleus estate model* in which the contractor not only acquires commodities from contracted farmers, but also administers a central estate or plantation for production. The central estate is commonly used for guaranteeing throughput for the processing plant. The nucleus estate model provides a significant degree of material and management assistance.

3) A third model of contract farming is *the multipartite model*, which can develop from the two former models through the organisation of farmers into cooperatives or the involvement of a financial institution. It often includes a statutory body in a joint venture with a private firm, but it can also involve a number of different organisations. This model was frequently used by governments in developing countries during the liberalisation process in the 1980s and 1990s.

4) *The informal model* consists of contracting schemes based on individual entrepreneurs and small firms. It is characterized by informal contracts which are often on a seasonal basis. The crops require a low degree of processing, for example fresh fruits and vegetables. The contract schemes in the informal model may require government support for research and extension services and often involve a risk of extra-contractual marketing. The opportunities for vertical coordination are smaller than in the more formal models.

5) The last one is *the intermediary model*. This model includes a contractor, normally a processor or trader, who contracts formally with an intermediary. The farmers are then contracted by the intermediary informally. The danger with these types of contracting schemes is that the contractor may not be able to keep the control of the production, the quality of the commodities and the prices received by the farmer.

In addition to these models, three distinguished functions of agricultural contracts have been identified. First, contracts are used for coordination so that the right quantity of products with the required quality is produced and delivered at the determined time and place. The second function is to provide incentives for both parties to comply with the agreement. Without these incentives there would be no transaction. Third, the contract accounts for the financial risks which are included in the agreement (Bijman, 2008).

Watts (1994) describes three different forms of the social organization of contract farming that have been present during recent decades. One is the large, state-owned enterprise that is centralized, having a processing unit and a large number of contracted farmers. A second type is constituted by private, often transnational corporations using contract farming as a reaction against the state-led nationalist movements in Central America in the 1950s. The last model includes farmers contracting with local, or at times foreign, capital. Schemes like these are often used in horticulture. However, the social and institutional organization of contract farming is complex and the boundaries between these three models are diffused. The reason for this is to a certain extent the internationalization of the agro-food system and the growth and dispersion of transnational agribusinesses.

3. Rural Development – Background and Theory

3.1 Development and Agriculture

The World Development Report 2008 focuses on agriculture as the engine of growth in the development process. It highlights the importance of the agricultural sector for poverty reduction and development. The report identifies two patterns of structural transformation that developed countries have experienced historically and that are present in developing countries experiencing growth today. The first one is that the share of agriculture in GDP is large at low levels of development. Second, there is a large gap between the share of agriculture in the labour force and the share of agriculture in GDP. This implies that agriculture has an important and increasing role to play in the development process. But in most parts of SSA this is not true. Instead, the share of labour in agriculture has declined while the countries have experienced no growth in GDP per capita (Todaro and Smith, 2006; World Bank, 2008).

Agriculture is a powerful tool for poverty reduction and economic development. Poverty is often concentrated in rural areas where agriculture is the main source of income. When growth increases in other sectors, many people living in rural areas often remain poor. This suggests that there are difficulties in redistributing the income generated in the industrial and service sectors. Therefore, growth in the agricultural sector and rural economy is critical for reducing poverty. Despite this, agriculture has not been used effectively as a tool for poverty reduction and development. The reasons for this vary among countries but a few examples are anti-agriculture policy biases, underinvestment in the agricultural sector and a neglect of rural areas by domestic policy-makers and donors. One major challenge is to pursue the perspective of smallholders in the process of agricultural growth and rural development including economic, social and environmental functions of agriculture (World Bank, 2008).

Smallholders often engage in subsistence farming which primarily produces output for family consumption, even though some of it may be sold at the local market. One main characteristic is low productivity resulting in low levels of output. The methods are simple and the capital investments are minimal. Land and labour are the most important factors of production. Higher levels of production are restrained by limitations in technology, rigid social institutions, fragmented markets and bad communication between rural and urban areas (Todaro and Smith, 2006). Hayami (1996) argues that farmers in the traditional agricultural economy are efficient in allocating resources and rational in their decisions concerning the farming activities. To the extent that they are able to respond to market incentives, they do. Yet, many smallholders remain poor and have to struggle hard for their livelihood.

Three main restraints for small-scale farmers to improve their production and raise their income have been identified. First, smallholders often have limited information about production methods, especially for new crops, and marketing opportunities. Second, they lack financial means and assets to be able to invest in new technology and they have a limited access to credit. Third, farmers living near subsistence level are risk averse and produce primarily a minimum level of food for the household. One of the interesting points with contract farming is that it has the potential to solve these constraints (Minot, 2007; Bijman, 2008).

3.2 Sustainable Rural Livelihoods

A livelihood encompasses individuals and their capabilities and means of living which includes income, food and assets, both tangible and intangible. The sustainable rural livelihood approach is a framework for analysing livelihoods. It was a response to the unsatisfactory results of former approaches to policies for encouraging development and poverty alleviation. In addition, the livelihood framework emphasizes the active role played by the rural poor in contrast to earlier approaches tending to conceive poor people as passive victims (Zoomers, 2008). It identifies the complexity of rural livelihoods and comprises a holistic and dynamic perspective. It is based on factors of capability, equity and sustainability. A main focus of the framework is five capital assets and how they can be converted into sustainable livelihoods. These capital assets will be used in this thesis to analyse the effects of contract farming on rural livelihoods (Chambers and Conway, 1991; Carney, 1998).

The definition of sustainable rural livelihoods has been developed by Chambers and Conway (1991:6) and follows:

“A livelihood comprises the capabilities, assets (stores, resources, claims and assets) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in long and short term“.

This definition is wide-ranging and comprises all aspects of rural livelihoods. It implies that livelihoods do not only depend on the actual assets of an individual but also on what people are capable of doing and able to perform with these assets. Furthermore the implication is that only when a livelihood is strong enough to recuperate from shocks and has a sound maintenance in both a short and long term perspective it will be sustainable.

Five capital assets have been identified upon which livelihoods are built. Poverty is related to a lack of these assets or the ability to use them productively (Ellis, 1998). However, the possession of these assets also influences the ability of people to pursue different livelihood strategies (Scoones, 1998). Bebbington (1999) emphasizes that assets are not simply resources used to build livelihoods, but assets also give people the capability to be and act. Hence, assets should not be viewed as merely things useful for alleviating poverty and reducing starvation, but they are as well important for people to be able to act and reproduce and to use and transform resources. However, the accumulation of these assets is not only important for livelihoods but is also a main factor of empowerment. Besides, when building up these core assets there are multiplier effects to be gained, for example knowledge and skills acquired by some farmers can spread to surrounding farmers and it can also be important for future generations.

The capital assets are commonly presented in a pentagon in order to give a holistic view of livelihoods. The idea is that there is a positive relationship between the accumulated assets and how well people can cope with shocks and stresses. The stronger base of capital assets, the more robust and better equipped the livelihood will be. Thus, there is not a one-to-one link between the capital status of an individual and the sustainability of his or her livelihood.

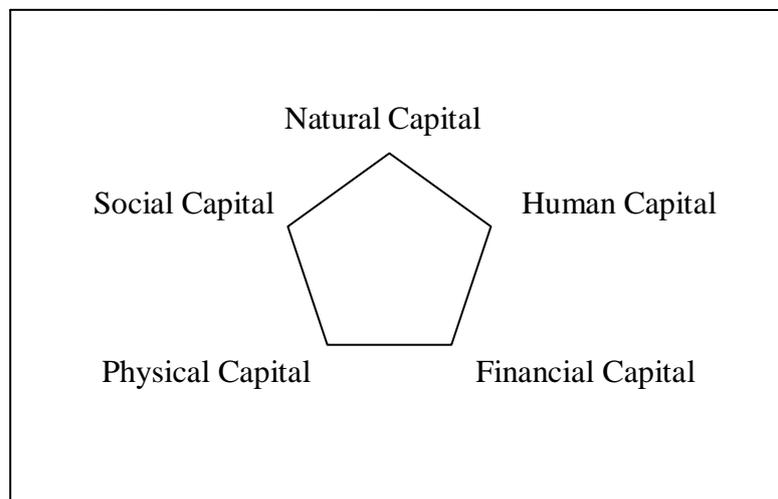


Figure 1 Capital assets

- *Natural capital - The natural resource stock from which resource flows useful for livelihoods are derived (e.g. land, water, wildlife, biodiversity, environmental resources).*

The choices of rural livelihood strategies are often dependent on the natural resource base. Natural capital is the source of food, wood and water supply, all necessary for survival. Moreover, natural capital can be used for intensifying agriculture and thus increasing the yields. By extending cultivation into unused land, farmers can increase output. The access to water and irrigation can furthermore increase the land productivity (Scoones, 1998; World Bank, 2008).

- *Social capital - The social resources (networks, membership of groups, relationships of trust, access to wider institutions of society) upon which people draw in pursuit of livelihoods.*

Social capital may be the least tangible of all assets. Bebbington (1999) argues that social capital is vital for the wellbeing of rural people. Social capital is an important factor in relationships that allow access to other assets. Access is necessary in order to expand and diversify the portfolio of assets and since social capital allows access, it is a critical asset to rural people. Community-level relationships can play an important role in enhancing households' access to various types of local resources. In addition, they can bring about a more efficient use of these resources. Furthermore, local networks of trust can facilitate the access to financial capital. Social capital also enables people to make living meaningful and to transform structures and rules (Zoomers, 2008).

- *Human capital - the skills, knowledge, ability to labour and good health are important to the ability to pursue different livelihood strategies.*

Education and health are two of the most basic objectives of development. They are important ends in themselves, but also interrelated. A prerequisite for increased production and a higher income is a good health, which in turn effects education. Furthermore, with a higher income people are able to spend more on education and health. Improved health and knowledge can help families to escape poverty traps. Hence, an increase in human capital can also lead to an increase in financial capital (Todaro and Smith, 2006).

- *Physical capital - The basic infrastructure (transport, shelter, water, energy and communications) and the production equipment and means which enable people to pursue their livelihoods.*

Physical capital such as shelter and water is essential for survival. Other types of physical capital for example production equipment and transport are important to raise productivity and income. Basic infrastructure is a vital factor for development. New technology and machineries can increase farm yields substantially, particularly where labour is scarce or the land is extensively cultivated. However it may also imply that less labour is needed and that

unemployment rises. Irrigation and chemical innovations also increase output, but may have negative effects on the environment and the natural resources (Todaro and Smith, 2006).

- *Financial capital - The financial resources which are available to people (whether savings, supplies of credit or regular remittances or pensions) and which provide them with different livelihood options.*

A regular income is essential for the building of livelihoods. In addition, savings and financial buffers can facilitate the expansion of livelihoods and give farmers an opportunity to invest in their agriculture or to diversify their sources of income. The access to credit is often an important determinant of farmers' opportunities to invest in their farming and develop their livelihoods. Financial capital may not be a direct source of productivity, but it can be used to acquire productive resources such as inputs, tools and machineries. Furthermore, financial capital makes it possible to invest in physical and human capital that can be used for improving livelihoods.

All of the five types of assets must be combined in order to generate a desired livelihood. People have different opportunities to access the various assets; hence particular assets may be more important for some individuals than others. Accumulation of these resources can furthermore function as a buffer in times of shocks and stresses.

4. Contract Farming in Sub-Saharan Africa

Contracts provide advantages for both farmers and firms. The social impact of contract farming often goes far beyond the smallholder to other family-members, hired labour and the local community (Glover and Kusterer, 1990). In Africa, contract farming has been part of some of the most effective income generating projects for small-scale farmers. However, there are also examples of unsuccessful contract schemes where farmers have been exploited by the contracting firms (Grosh, 1992). Therefore the study will analyse both positive and negative consequences for farmers engaged in contract farming and thereby contribute to a multifaceted picture of this phenomenon.

This chapter presents a shorter summary of the characteristics of the case studies and serves as a basis for the following analysis. A more detailed description of the cases can be found in the appendix. The case studies have been chosen in consideration to what extent they discuss the impact of contract farming on small-scale farmers. The main features have been identified and summarized. The case studies deal with contract farming in Zambia, Nigeria, South Africa, Malawi, Kenya and Zimbabwe.

Contract farming in Sub-Saharan Africa is mainly used by the private sector, but a number of state-owned companies also apply contracts to obtain high-quality commodities. National governments and donor agents in many countries have promoted contract farming as a tool for development. However, they have to a greater extent realized that contract farming ought to be driven by the private sector; hence previously state-owned companies have been privatized and manage these contracting schemes on their own.

The number of farmers participating in contract schemes varies from a few hundred to over 200 000, depending on the size of the contracting firm and its motivation. Common crops cultivated under contracts are cotton, fresh fruits and vegetables, tea, coffee and sugar. In most of the contracts the price, quantity and quality of the produce are stipulated. The time period for the contracts runs between two months and a year, though some are even indefinite. The area cultivated by smallholders is often one or a few hectares.

The motives of the contractors vary; while some are only interested in obtaining high-quality commodities and maximizing profit, some have social and moral reasons for their business and aim at encouraging and satisfying their contracted farmers. There are examples of contracts where ethical trading requirements are taken into account. Other firms encourage the farmers to grow other crops than the contracted crop and to have alternative sources of income. Several firms have a limit of the amount of seeds each farmer can obtain or the size of the plot in order to let them grow other crops and not become dependent on the crop in the contract.

Many of the case studies discuss the problems that contract farming implies for farmers. One problem is that the legal framework is weak and litigation processes are slow. If contracts are breached farmers cannot easily charge the firms and be compensated for damages. In addition, the insurance system for farmers is generally inadequate. Another important issue that must be considered from a development perspective is the exclusion of farmers. Several case studies discuss the problem that firms often choose farmers who are able to produce a certain amount of the crop or who have been contracted by the firm before. Corruption is also mentioned as a challenge for many contract schemes. Farmers are negatively affected if the contracting firm lacks a sound and competent management. Finally, the monopsonistic position that many firms enjoy on the market can sometimes be disadvantageous for smallholders. If the farmers do not have anyone else but the contracting firm to sell their products to, they are at risk of being exploited.

Several studies also consider factors contributing to the success of contracting schemes. Trust is an essential aspect in the relationship between the firm and the farmers and also affects the outcome of the contract scheme. The roles and responsibilities of both parties in the partnership must be clearly defined. Moreover, farmers entering into contracts are in a better position, especially in negotiations, if they have alternative sources of income or other production possibilities. Farmers are also in a better situation if they own their land and have control of important natural resources such as water. Another issue being discussed in the case studies is the organisation of farmers. In several contract schemes the farmers are organized into groups. This means that they can collaborate in matters such as managing the contact with the firm and taking care of financial issues. They also build up social relationships and safety nets through these farmers' groups.

Table 2 shows a summary of the case studies and their main characteristics. Cotton, tea and sugar are among the most common crops. The contracts are oral or written, formal or informal. As can be seen, all the different models of contract farming are present in SSA, however many correspond to the centralized model. The provisions made by the company are more or less the same in most contracting schemes, even though there are small variations. The most common inputs such as seedlings, fertilizers and pesticides are supplied by the majority of firms. The cost for them is then subtracted from the final payment, which is mainly made in cheques or cash. The price that farmers are paid for their produce differs; while some firms use a fixed and pre-determined price, others adjust it to the world market. A number of different problems are discussed in the case studies, some are particular for certain cases but others are emerging in several of them.

Table 2: Main Characteristics of Contract Farming in SSA.

| | Zambia | Nigeria | South Africa | Malawi | Kenya | Zimbabwe |
|--|--|---|--|---|--|--|
| Commodity | Cotton | Barley | Tea and sugar | Sugar, tea, tobacco and cotton | French beans, passion fruits and potatoes | Cotton, horticultural products and tea |
| Type of contracts | Formal and informal | - | - | - | Formal and informal | Formal and informal |
| Models | Centralized, intermediary and multipartite | Nucleus estate | Nucleus estate | Centralized | Centralized, multipartite, informal and intermediary | Centralized and nucleus estate |
| Provisions made by the contracting firm | Inputs on credit and extension services | Fertilizer at subsidized rate, seeds, pesticide and extension service | - | Seeds, fertilizer, chemicals, irrigation equipment and land development costs on credit. Extension services. Capital on credit | Seeds, pesticides, chemicals, nutrition supplements and transport | Seeds, fertilizers, pesticides, picking bags, tillage and transportation on credit. Technical assistance |
| Price paid to the farmers | Pre-determined but tied to the United States' dollar | - | - | <i>Tea</i> : one pre-determined part and one based on auction prices. <i>Cotton</i> : no pre-agreed price | <i>French beans</i> : a price-based determined each year <i>Passion fruits</i> : fixed <i>Potatoes</i> : pre-determined but adjusted to the market price | <i>Horticultural products</i> : one fixed part and one adjusted to the international market <i>Tea</i> : one fixed part and one depending on the price received on the world market |
| Problems | <ul style="list-style-type: none"> Weakness of enforceability Lack of farmers' organizations Lack of regulatory framework | - | <ul style="list-style-type: none"> Disagreements in the financial relationship Bad communication Few alternative income possibilities | <ul style="list-style-type: none"> Exclusion of smallholders Inadequate protection of small-scale farmers Lack of a relevant policy framework Macroeconomic instability | <ul style="list-style-type: none"> High input and transportation prices Corrupt field staff Exploitation of monopsonistic position by the companies | <ul style="list-style-type: none"> Lack of farmers' representation in company management The firm have a monopsony on the market and controls the farmers Weak legal framework protecting the farmers |
| Case Studies | Likulunga, M. (2005) | Porter, G. and Howard, K. (1997) | Porter, G. and Howard, K. (1997) | Kumwenda, I. and Madola, M. (2005) | Strohm, K. and Hoefler, C. (1998) | Woodend, J. (2003) |

5. Capital Assets and Contract Farming

With the foundation in the case studies presented in the previous chapter, this section will analyse how contract farming can contribute to the development of rural livelihoods. This chapter will apply the theory of sustainable rural livelihoods and answer to the second research question. The five capital assets in the core of the sustainable rural livelihoods approach provide an appropriate framework for analysing how contract farming can contribute to strengthening rural livelihoods and support the development process in rural areas.

Natural capital

Contract farming does not generally add to the natural capital assets of small-scale farmers and the rural community. It is rather the contrary effects that are discussed in the case studies, such as the risk that contract farming will deplete the natural resources of an area due to commercial objectives of maximizing the profit of the land. Contract farming is most common in areas with fertile soil and where the agriculture is already widely spread, hence the risk of overexploitation is high. Furthermore, Porter and Howard (1997) discuss irrigation as an example of natural capital. Where large contracting schemes are established, irrigation systems supporting these estates may cause shortages of water for nearby smallholders. When farmers have control over the irrigation systems, the contract farming is probably sounder for the smallholders. But on schemes where the company controls irrigation, the risk for conflicts over water resources is higher.

Even though contract farming *per se* does not contribute to the accumulation of natural capital, the higher income received from selling the produce regularly can for example enable farmers to acquire extra land if available or invest in irrigation systems giving access to water sources. Contract farming may also facilitate for farmers to intensify their use of the natural capital. However, in a sustainability perspective, this is not always desirable.

Social capital

There are several ways in which contract farming contribute to farmers' social capital. First, the relationship with the contracting firm is a social resource that can be utilized by farmers to obtain a better position in negotiations and gain valuable experience for the future. Woodend (2003) argues that trust and mutual respect in the relationship between farmers and the companies are more important factors of success of a contract arrangement than is the contract *per se*. Homegrown, a Kenyan firm, appears to have a good cooperation with its farmers and the firm seems to emphasize good relationships to the farmers more than formal and written contracts. The firm also supports the farmers through various corporate social responsibility measures (Strohm and Hoeffler, 2006). The majority of farmers report that they are satisfied with their relationship to the

firms and that there is a good cooperation. This statement is reinforced by the fact that few cases of side-selling are apparent in the studies which implies that the farmers do not have reasons to sell their produce to other buyers. In addition, certain companies seem to give priority to the relationship with the farmers over the actual contract.

Another important factor in the relationship is the staffing. The contact with the company usually goes through the field officers and therefore it is important that they are familiar with the local cultures and languages. In a Nigerian case study, the communication between the farmers and the company is facilitated when there are indigenous field officers employed by the company. The understanding of both parties is also larger. Moreover, the farmers get in contact with the firm through visits by the field assistance, meetings, the delivery of commodities and even sometimes study visits at the processing plants by the farmers (Porter and Howard, 1997). All of these activities add to the social capital of farmers.

Social capital is also obtained when farmers organize themselves in groups. Farmers benefit from being member in a group through the network that is built and they can exchange experiences, give advice and help each other. Some firms only contract with already established farmer groups, while others contract with individual farmers organizing themselves on their own initiatives. Subsequently this can lead to better access to financial resources and thereby increase the financial capital. For example, a farmer group in Silibwet, Kenya, collects potatoes from individual farmers but also cultivates a common plot together. The collective crop growing contributes to the social relations among the farmers and brings money to the group activities. The farmer group shares a bank account and meet every week for discussing different issues (Strohm and Hoeffler, 2006). The opening of a bank account gives them experience and knowledge about economic issues, thus adding to their human capital as well. Another Kenyan case shows how farmer groups, by organizing themselves at a primary level, have facilitated for the members to respond to changes in the agro-industry and to get access to financial means. The farmers are organized into groups of 15-20 farmers and they receive information, inputs and technical support through these groups (Coulter et al., 1999). This implies that it is vital for smallholders to cooperate on a grass-root level in order to obtain access to services.

Contract farming may as well increase women's social capital by accepting them in the schemes. In one of Frigoken's schemes in Kenya, 16 000 – 20 000 farmers are participating, from which approximately 80 percent are women (Strohm and Hoeffler, 2006). In another scheme in Zimbabwe, 60 percent of the approximately 4 000 smallholders are women (Woodend, 2003). However, women are often excluded or exploited by the male members of the household.

Human capital

The contract farming schemes contributes to the accumulation of farmers' human capital in a number of ways. The majority of the contracting firms provide the farmers with information, technical assistance and training which increase the farmers' knowledge and skills. In certain cases, external support is provided by a consulting company. An example of this is East African Growers Limited (EAGA) in Kenya. The firm has also arranged study visits for the farmers to come and see the processing facilities in Nairobi. This improves the farmers' knowledge about the whole commodity chain and adds to their understanding of the importance of high quality products (Strohm and Hoeffler, 2006). Farmers acquire information about what high quality of the product implies and how it is achieved. This knowledge can be utilized by the smallholders even after an ending of the contract and it can also be transferred to future generations. Furthermore, farmers may improve their skills in economic administration. In many schemes the firms require the farmers to have their own bank account. Farmers also gain experience from a business partnership which can be valuable for future participation in related interactions. Other positive effects of contract farming are the transfer of technology and knowledge from the company to the farmers in rural areas which can also have further spill-over effects.

Farmers who receive a regular payment are able to pay the school fees for their children. Thereby contract farming indirectly leads to a higher human capital for the younger generation. A farmer participating in a Kenyan contracting schemes reports that he is satisfied with his involvement in the scheme and that the money he has received has enabled him to pay schools fees for his children (Strohm and Hoeffler, 2006). A higher income may also enable farmers to purchase medicines and get better access to health care. A good health is a prerequisite to be able to operate a farm and sustain a livelihood.

Physical capital

The physical capital has increased for several farmers in the case studies. One of the most important factors is access to inputs. The majority of the contracting firms provide the farmers with inputs and extension services which they might not have been able to acquire otherwise. In most of the contract schemes inputs are supplied on credit by the contracting company. The cost for these is subtracted from the payment the farmers receive for the commodities they deliver, thus they have an incentive to cultivate and manage their crop growing as well as possible. In addition, new technology and machineries are sometimes introduced to farmers who enter into contract farming. These can intensify the cultivation and increase yields.

Another essential factor is the access to markets. If a farmer has a contract he or she is ensured of a market for the commodities produced, hence it becomes a security for them. This also gives incentives for investments and motivates farmers to work harder and increase production. In order to access markets, transport is inevitable. In some of

the cases, transport is arranged by the contracting firm, either with their own vehicles or with an external transporter. An example is the contracting firm Steers in Kenya who organize their own transport from Nairobi. This provides the farmers with access to transport as long as they are contracted by the firm, however if they lose the contract the farmers are left without any means of transport. In other cases, the farmers are in charge of transporting the produce to the delivery spots, for example the farmers supplying potatoes to Deepa in Kenya (Strohm and Hoeffler, 2006). Farmers organized in groups can collectively invest in a vehicle for transport and if they would end the contract they would still have good access to transport. For the most part, firms employing contract schemes engage farmers in the vicinity of the processing plants or delivery facilities. However, various examples from the case studies show that firms sometimes prefer to contract with farmers living in remote areas because of smaller risk of side-selling. Even though this might imply a higher risk for the farmers to become exploited, it can at the same time give them an opportunity to commercially sell their commodities and thereby earn a higher income from which they could later improve their asset of physical capital.

Entering into a contract may imply that the farmers are required to purchase equipments, for example scales to be able to control that each bag of the product contains the correct amount of the crop or a vehicle for transport. Without a contract, the farmers may not have been able or encouraged to invest in these equipments. However, if they have a contract and know they will have a constant income for the coming year, it can be an incentive to acquire new tools and equipments. For example, a farmer group in Silibwet is planning for the future. They want to construct a store for ware and seed potatoes, purchase rucksack sprayers and seeds, and to invest in their own vehicle to facilitate the transports (Strohm and Hoeffler, 2006). These investments will all contribute to the accumulation of physical capital.

Financial capital

Several case studies, and also previous research, show that farmers have obtained a higher income from contract farming which means that they can develop their livelihoods and improve their standards of living. Additionally a higher income can make it possible for farmers to save a small amount of their income and then use it in times of hardship or to recover from shocks. Contract farming also creates a security for farmers knowing that they have a market and will receive regular payments for their produce. Furthermore there is usually a possibility for farmers to obtain a supplementary payment for high-quality products or additional delivery. One example is The Cotton Company of Zimbabwe (COTTCO), offering additional payment for high quality cotton (Woodend, 2003). A majority of the firms in the case studies contract with smallholders. In places where contract farming can raise the income for these farmers, poverty in terms of financial assets can also be reduced.

The access to credit is important to farmers because it enables them to develop, improve and invest in their agriculture. Many of the farmers involved in contract farming get access to credit through the contracting firms and this is also one motive for farmers to sign contracts. Some companies offer cash loans to their contracted farmers so that they can hire extra labour or make supplementary investments. For example, in COTTCO's contract schemes in Zimbabwe, farmers who have performed well may receive a cash loan to pay labour, however any remaining loan will be carried on to the next seasonal contract and then an interest will accrue (Woodend, 2003). Firms that are satisfied with the delivery of their contracted farmers often prolong the contracts and develop genuine partnerships with the farmers for a longer period of time. This is important to farmers since it does not only give them a higher income, but also a sustained income.

Contract farming is often seen as a mean to efficiently commercialise agriculture. Although many of the contracting firms are private, profit-making companies, there is evidence that it is possible to combine private entrepreneurship and the production of high-quality exports to the European market with a social mandate and a focus on small-scale farmers. For instance, Tanganda, a firm having one of the major tea-estates in Zimbabwe has supported the setting up of a coffee out-grower scheme for those farmers living too far away from the factory to be able to grow tea leaves (Woodend, 2003). This gives the farmers in this region an opportunity to produce commercially for a market and thereby raise their income.

One important thing that many farmers prioritize when their income is raised is to invest in the children's education. Except the contribution to the human and social capital, this may also in the long run increase the wealth of the family through future non-farm employments. Moreover, the new skills and equipments farmers may acquire when engaging in contract farming can in a longer perspective contribute to an increase of financial capital if used effectively.

Contract farming contributes to an increased access and accumulation of capital assets in several ways. There are major gains to be made in social, human, physical and financial capital which can furthermore increase the opportunities for rural livelihoods. However, the gains in natural capital are not significant. Concerning social capital there are gains to be made from the building of networks which is particularly important for women. Human capital is mainly build up through information, technical assistance, trainings and education. In addition, better access to inputs and investments in equipment has raised the stock of physical capital for many small-scale farmers. Finally, when farmers receive a higher income and get access to credit the financial capital is increased.

6. Risks in Contract Farming

Even though contract farming contributes to the accumulation of capital assets, farmers who are participating in contract schemes face a number of risks. As Glover and Kusterer (1990) argue, contract farming is essentially an allocation of risk between the farmers who tend to bear the production risks and the firm taking the marketing risk. The distribution of risk depends on the provisions of the contract and how they are implemented. In addition, depending on the government and the legal framework, the contracting firm and the surrounding institutions, the farmers are more or less protected from these risks. In other words, if the farmers are unfortunate contract farming can have detrimental impacts on their livelihoods. Consequently an analysis of these risks is necessary in order to obtain a comprehensive and holistic view of contract farming and its effects on farmers' livelihoods and rural development.

The legal framework and the litigation process are often weak and flawed. If a company choose to breach the contract, the individual farmer or the farmers' group become vulnerable. In Zambia, for example, there are existing laws of contracts which are supposed to protect both the growers and the contractors. However there is no executive body that can manage and resolve the disputes, hence it is a critical factor that such a body is established (Likulunga, 2005). In addition, Kumwenda and Madola (2005) argue that small-scale farmers in Malawi are at risk when entering contracts because they lack collateral and the legal and insurance systems are weak. The legal system must be developed to protect stakeholders in general and smallholders in particular. However, for farmers to be able to take advantage of this they must have good access to the legal system. In addition, the power relation in contract farming is such that the contracting firm has more resources to invest in the proceedings thus they have an advantage over the farmers, who often lack collateral. Therefore, when conflicts occur or when farmers are exploited by the firms, they have less chance to protect themselves. Moreover there is always a risk for farmers that the contracting firm ends the contract without prior notice. If a cheaper alternative appears to the firm, it might abandon the contracted farmer. Even if a contract has been signed, farmers are at risk of being abandoned by the firm and this can have devastating consequences for the livelihoods of farmers who depend on contract farming for their income.

The matter of land tenure is important in contract farming. If the farmers do not have legal authority to their land they may be obliged to apply practices imposed by the contracting firm or they can be bereaved of their plot. In a case study from South Africa the contracts do not only require high-quality commodities but also include matters of social behaviour and discipline (Porter and Howard, 1997). If the farmers do not live up to these standards, the company might reclaim the plot whereby the farmers lose an important source of income. Farmers living under such conditions have more difficult to build a sustainable livelihood. There is also a risk of conflicts between the contracting

company and the farmer which can result in a breach or end of a contract. For example, on contracting schemes where the company controls the irrigation systems the risk for conflicts is higher and if there is a water shortage it can be difficult to reach the required supply. But where farmers are in control of the water sources there is less risk for disagreements.

Further risks related to land concerns alternative production possibilities. Farmers entering into contracts become vulnerable if they do not have alternatives to their production on contracts or diversified income strategies. If the contracting firm for any reason chooses to end the contract, farmers may lose their only source of income and their livelihoods will be threatened. Therefore farmers should not become too dependent and reliant on contracts. In addition, case studies show that farmers having alternative production possibilities have a stronger position in negotiations with the contractor. In a Nigerian case, Porter and Howard (1997) find that farmers were restrictive concerning the land area devoted for the crop grown for the contract scheme in order to be able to grow vegetables for the local markets in addition. The farmers have thereby gained a stronger position in negotiations with the contracting firm. On the contrary, in the South African case farmers have less ability to maintain alternative production possibilities hence they are in a more vulnerable position.

Another type of risk concerns the pricing system. If the agreed price is fixed, farmers may not benefit from a price increase on the world market. If the price is adjusted to the world market, farmers must cope with the volatility in prices and can never be sure how much they will receive. If the world price is reduced it affects the farmers directly and this has been a source of conflict between growers and contractors. There is evidence from the Zambian contract farming that agribusiness have been paying a lower price to the farmers than stipulated in the contract because the price has been tied to the dollar (Likulunga, 2005). There are also contracts which give firms the right to change the price on a three-month basis in order to follow the market price.

Transport may as well embrace a matter of risk. When farmers or the company do not use their own transport facilities, but hire an external transporter to deliver the produce, problems have sometimes arisen. One example draws upon a case study from Kenya where the contracting firm, Steers, several times hired a transporter to pick up and deliver the potatoes. In order to make it more efficient, the trucker brought his own people to harvest the potatoes. They collected potatoes which were not large enough and therefore a big part of the delivery was rejected by Steers. After this had happened three times, the farmers stopped supplying Steers. However, in December 2005, Steers called for a meeting to renegotiate a contract with the farmer group (Strohm and Hoeffler, 2006).

In contracting schemes where the farmers are organized in groups, the contracting firm commonly exerts the method of collective punishment if one farmer fails to meet the requirements. This provides farmers with incentives to work hard in order not to disappoint their colleagues. But it also exerts a risk for all farmers in the group who can be negatively affected even though he or she is performing well. In Kenya, Frigoken has considerable criteria for farmer groups that want to be contracted by them (Strohm and Hoeffler, 2006). This might for example prevent farmers who are not yet organised into groups or who are living far from the central provinces from being contracted.

The exclusion of groups of farmers is a broader perspective of the risks of contract farming as a tool for development. One example is black farmers in South Africa who have been left out from contract farming, but women also have less access to contract schemes in many countries. Moreover, many weak farmers fail to meet the prerequisites of entering into a contract and thereby are not able to acquire contracts. Kumwenda and Madola (2005) find that smallholders in Malawi are often excluded from contract farming, especially in the production of maize. In a contract scheme in Zimbabwe, farmers who want to participate need to prove that they are able to supply a minimum yield in order to be accepted in the scheme. A further example is COTTCO which uses a selection process putting preference to higher output farmers who have previously shown good results (Woodend, 2003). Hence, weaker smallholders are easily rejected and excluded from contract farming. Further reasons to exclusion of small-scale farmers are the difficulty to control the quality of the commodities and the large working capacity required to monitor numerous dispersed smallholders. Despite this, large numbers of small-scale growers participate in contract schemes in Zimbabwe. In the cotton sector alone, approximately 50 000 smallholders are involved (Coulter et al., 1999:2). Porter and Howard (1997) conclude that the more vulnerable members of rural communities in Africa are at risk where contract farming is being implemented. However they underline that there are a number of improvements that could be used in order to benefit both the small-scale farmers and the contracting company.

When contracting firms enjoy monopsony on the market, farmers become dependent upon one buyer. This can lead to mono-cropping which can be negative in ecological aspects and often implies a higher risk for farmers (Grosh, 1992). However it can be an opportunity for remote areas. One example is Steers, a firm that has a contract with farmers in Olokurto because of its interior location. The area has a low-density population, poor infrastructure and the farmers cannot easily sell their produce to others. Therefore Steers can be sure to acquire the potatoes if they have a contract with the farmers (Strohm and Hoeffler, 2006). As well, the out-grower scheme of Hortico Agrisystems has named a “benign dictator” because of the strict control of the contracted farmers maintained by the company. Hortico enjoys a monopsony for their products (Woodend, 2003).

The risk of farmers defaulting on the contract is always present. Unpredictable factors such as bad weather or illness might prevent the farmer from achieving the provisions of the contract and this can consequently lead to the firm ending the contract. There is evidence of how the risk of farmers defaulting on the contract can be mitigated. In a Zambian case, the contracting firm appoints one farmer to become the group leader and an intermediate between the firm and the farmers. The firm signs the contract with this farmer who is the representative of 30 – 100 farmers. This person must be literate and is then trained in agronomic aspects and provided with a bike and inputs on loan (Likulunga, 2005). However, in this type of contract farming other risks appear which can have negative consequences for both the company and the farmers. Another opportunity is therefore to ensure that the communication between the firm and farmers is good and that the field assistants are known and respected among the farmers. There must be a well-functioning link between the management and the farmers in order to mitigate the risk for breaches of the contract. Even though farmers who enter into contracts are exposed to many risks, measures can be taken to mitigate them. One important factor is trust in the relationship between the farmers and the firms. Several studies suggest that partnerships on a long-term basis which are based on trust and cooperation are beneficial to both parties in a contract and reduce the risk of breaches of the contract. It also effects the farmers' satisfaction with the scheme and the contracting firm.

To review, the main areas where risks have been identified are breaching of contracts by the firm, vulnerability in the legal system and the risk of exploitation. Furthermore the pricing system, the issues of land tenure and alternative production possibilities might imply risks. Transports, collective punishment, exclusion of small-scale farmers and women, firms having monopsony and the risk of defaulting are other areas of risk.

7. Summary and Conclusion

Three main questions were formulated for the purpose of this study. These involve the main characteristics of contract farming in Sub-Saharan Africa, the contribution it makes to the livelihoods of smallholders and the risks related to contract farming for the participating farmers. This chapter summarizes and discusses the conclusions.

Contract farming in SSA varies among countries and different contracting schemes, but do also have some common characteristics. Cotton, sugar, tea, barley, tobacco and horticultural products are among the most common crops for contract farming. The contracts are both formal and informal. Different models have been identified, but the models appearing most frequently are the centralized and the nucleus-estate models. The majority of the contracting firms provide the farmers with seeds, fertilizers, pesticides and extension services. In addition, technical assistance and transport are also offered by some firms. Problems with contract farming have occurred in all countries in the case studies, for example are the policy and legal frameworks not functioning well, the farmers are poorly organised and contracting firms have a monopsonistic position. However, it is also important to note that many case studies show successful examples of contract farming.

The analysis shows that contract farming contributes to an increased access and accumulation of capital assets essential for sustainable rural livelihoods. The gains in social, human, physical and financial capital can be substantial whereby livelihood opportunities are increased, while the expansion of natural capital is not that significant. The gains in social capital consist of the building of networks with the firm but also with other farmers. For women, this can be particularly important. Furthermore, human capital is built up through information, technical assistance and trainings. In addition, when earning a stable income farmers are able to send their children to school. Better access to inputs and investments in equipment has raised the stock of physical capital for many small-scale farmers. Finally, the financial capital asset is increased when farmers receive a higher and stable income and get access to credit.

There are a number of risks associated with contract farming and these can cause major damages to rural livelihoods. The analysis shows however that measures can be taken in order to mitigate these risks and the effects of them. The most frequent risks faced by smallholders when entering into contract farming concern their vulnerability in the legal system in case of breaches of the contract, the danger of becoming dependent upon or exploited by the contracting firm and to receive a lower price than the one paid for the product in the local market. Moreover, issues of land tenure and alternative production possibilities also embrace risks. Other situations involving risks are when farmers are excluded from contract farming, when the firm can benefit from its monopsonistic position on the market or when farmers default on the contract.

Contracting farming *per se* can contribute to the building of rural livelihoods and rural development, however as with other development projects, it is not a universal solution for poor smallholders in Sub-Saharan Africa. The analysis shows that contract farming has positive consequences in both the short and long run, but there are limitations for its impact on rural development. If the contract arrangements are too exploitative or poorly managed, the consequences for the farmers may as well be negative and detrimental. Furthermore, contract farming may not be suitable in all areas or for all crops and it can also lead to environmental degradation. On the contrary, it may lead to the opening up of remote and less developed areas and give farmers a chance to produce for a larger market. Since contract farming is a business, most firms will choose already well-endowed farmers, or at least not the poorest ones, for contracts. This implies that the poor farmers, who might be in most need of a contract, may be excluded. Thus contract farming may influence a development process which leaves some behind.

As is clearly shown in the analysis and as has been summarized here, contract farming has both positive and negative impacts on rural livelihoods and development. However, with a strong legal framework protecting both farmers and firms and the implementation of policies facilitating for all parties, contract farming has the potential to contribute to rural development while mitigating the risks for farmers. The government should provide an executive body which can settle disputes and solve conflicts. Investments in infrastructure such as roads, irrigation and institutions are also essential for the agricultural sector and the development of successful contract schemes. At last, a sound macro-economic environment and effective pricing policies have positive influences on the profitability for both farmers and firms.

In the course of this paper, further interesting topics of research have appeared. One important aspect would be to thoroughly examine under what circumstances contract farming can be more profitable and less harmful to small-scale farmers. Previous research has to a certain extent investigated the measures that can be taken in order to make contract farming more beneficial to smallholders, but more could be done within this area. Then contract farming may be used as one efficient tool for rural development. Another suggestion for further studies is to analyse TNCs use of contract farming and how they can apply contract farming in a sound and sustainable way for both farmers and the environment. One interesting question to put forward is if there is a win-win situation for firms and farmers in contract farming and if this ought to be further promoted by governments and development institutions in the future.

To summarize, contract farming in SSA have many common characteristics even though there are variations among the different contract schemes. The contribution of contract farming to farmers' opportunities to build livelihoods is manifold but various risks must also be taken into consideration. These can however to certain extents be mitigated and thereby contract farming may be an effective tool for improving rural livelihoods and contribute to the development process.

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Appendix

Contract farming in Zambia

In Zambia, contract farming started in the cotton sector in the early 1970's when the state-owned Lint Company of Zambia (LINTCO) was founded in order to increase the production of cotton. This was followed by private initiatives in the sugar industry and in the early 1990's the Zambian economy underwent a liberalization process, thus several private companies started to engage in contract farming. The most common crops cultivated by smallholders under contract schemes in Zambia are cotton, tobacco leaves, coffee beans, sugarcanes, paprika and fresh vegetables (Likulunga, 2005).

The cotton production is mainly controlled by private sector enterprises. There has been an increase in the number of cotton farmers from 90 000 in the year 2000 to an estimated 227 000 farmers in 2004. This is essentially due to the supply of production inputs and access to markets. In the tobacco industry, 40 percent of the tobacco leaves are produced by small-scale farmers. Approximately 2 000 smallholders were participating in out-grower schemes in the season 2003/2004 cultivating an average of 0.5-1 hectares each. In the coffee sector, 99 percent of the coffee is supplied by large estates and only 1 percent comes from small-scale farmers. The smallholders are often contracted by large-scale farmers who own processing facilities. In addition, small-scale farmers are organized in groups (Likulunga, 2005).

Three companies are producing sugar in Zambia. The major one is Zambia Sugar Company. Approximately one third of the sugar cane processed by the company is grown by small-scale farmers, each cultivating about four hectares. Contract farming has been used in the production of fresh vegetables since the 1970's. There are two main markets: public institutions and supermarkets. Most of the smallholders are relying on a short-term contract to supply vegetables to schools, hospitals, hotels etc. These contracts stipulate the quantity, quality, price and date of delivery (Likulunga, 2005).

Contract farming in Nigeria and South Africa

Porter and Howard (1997) examine contract farming in two study areas, the Jos Plateau in Nigeria where barley is grown and Transkei and Natal in South Africa where sugar and tea are cultivated. They discuss five factors affecting how successful the contract schemes are for the small-scale farmers. All of these factors encompass power-relations between firms and farmers to a certain extent.

The first factor concerns scheme staffing and the relations between the companies and the farmers. They argue that in both Nigeria and South Africa the staffing is an important issue regarding the farmer-firm relations. Second, alternative production

possibilities are important for farmers in order to strengthen their position when they enter into a contract scheme. Porter and Howard suggest that there is an obvious difference between farmers who have alternatives to their production and income sources and farmers who have not. The farmers are constantly at risk of being abandoned by the contracting enterprise if there would be cheaper alternatives for the firm. The third factor concerns previous experience with multinational corporations or other large companies. Farmers with previous experience are better prepared for negotiating with the contracting firm. This was evident on the Jos Plateau in Nigeria where several of the farmers had been working as tin miners for European tin corporations. Hence they were restrictive in their dealings with the contractor. Fourth, the issue of land tenure and the farmers' control of land and irrigation water are important for the success of contract farming. Porter and Howard argue that when farmers have total control over their land, they do not have to use practices implemented by the contracting firm. The last factor regards gender issues. The position of women in contracting schemes and whether or not they are involved in the production process differs among schemes. Porter and Howard note that in one case almost no women are participating in the contracting schemes, while in other cases women are working at the plots all year around but the men are collecting the cheque (Porter and Howard, 1997).

Contract Farming in Malawi

Contract farming in Malawi is mainly applied in traditional export crops such as sugar, tea and tobacco, but also cotton and paprika are grown in contracting schemes. The highest number of small-scale farmers is involved in cotton growing. The tobacco contracting scheme in Malawi is an example of a successful scheme for both the contracting firm and the participating smallholders. The tobacco company have ensured an increase in high quality tobacco meanwhile all the loans have been fully reimbursed. The farmers on the other hand have received higher yields and thereby increased their income. The farmers have been provided with input packages for tobacco and maize and they also received capital in order to employ hired labour (Kumwenda and Madola, 2005).

Kumwenda and Madola (2005) highlight five preconditions for successful contract farming. First, the partnership between the private sector and the farmers must be clearly defined and both parties must be well aware of their roles and responsibilities. Second, farmers should be involved in the management to make certain that the views of the smallholders are taken into account. A well-organized management of the production chain is also necessary for achieving high quality products. Third, the financial administration ought to be well controlled and transparent records should be kept. Fourth, social issues such as food security, labour and safety nets must be included in the contract scheme to facilitate for the farmers to perform satisfactorily. Fifth, material benefits to all parties are essential. Early benefits to farmers can motivate them to keep the commitments on a long-term basis.

Contract Farming in Kenya

Strohm and Hoefler (2006) find that in Kenya larger companies dealing with fresh fruits and vegetables and involved in contract farming are commonly using the centralized model for their schemes. But there are also firms using intermediaries in their contract farming businesses, hence they are adopting the multipartite model or the intermediary model. Smaller firms having less capital and resources commonly apply the informal model through written or oral contracts. Transitions between the different models are smooth and firms often begin with informal contracts and then develop to become more formal further on if they are successful. The case study deals with contract farming in three different value chains in Kenya; French beans, passion fruits and potatoes.

French Beans

One of the large firms in the French bean businesses is Frigoken. The company provides the farmers with commercial contracts, fertilizer programmers and memos to improve the management. The firm has a focus on small-scale farmers and a social mandate. An agency of a fund for economic development also provides loans to the farmers to manage financial needs before harvest revenues. Furthermore, for every planting there is a meeting held with the farmers where issues and problems can be discussed. A normal contract runs for 2-3 months and each farmer can plant a maximum of 1 kilogram of French beans seeds per planting. The underlying reasons are that the firm targets smallholders and farmers should be able to manage the cultivation without hiring external labour. Farmers are informed about the quality the beans must have in order to be accepted by staff from the company. If the plucked beans are rejected, the farmers have to bring them back home. A price base is determined for the whole year and the farmers are paid in cash for each harvest minus the cost for inputs supplied by the firm. The firm's field assistants are local persons who know the farmers and in case of disputes, local leaders are often assigned to solve them.

A second firm dealing with French beans is Meru Greens Horticulture. In 2006 they contracted around 3 500 out-growers. They target individual farmers and aim at encouraging and satisfying them. Each farmer signs the contract for one year and they need to have their own bank account. Meru Greens pre-finance 50 percent of the seeds and 100 percent of the chemicals and nutrition supplements. The firm started with contracts to avoid out-selling and let the farmers be bound to the company. However, since the contracted farmers are pleased by the firm's services out-selling does not exist.

Passion Fruits

East African Growers Ltd. (EAGA), dealing with passion fruits, has constructed a detailed contract for the terms and conditions committed to by the company and the contracted passion fruit growers. Included in the contract are responsibilities of the parties and ethical trading requirements, as well as bonuses, penalties and dispute settlement. For the signature, both participants in the contract are represented and as

well as a witness. Farmers have been able to visit the EAGA facilities in Nairobi and are provided external support by a consulting company. EAGA provide the farmers with cartons for packaging of the passions fruits. If the delivery of fruits is rejected, the farmers are always informed about the reasons. The contracts run for one year and the price is then fixed.

Potatoes

One is a farmer group growing potatoes in Bomet have not yet signed a contract with Deepa, the firm to which they are selling potatoes. Hence, it is still an informal model of contract farming. There is an agreement of a price paid by Deepa to the farmers for every kilogram of potatoes delivered. However, Deepa is allowed to change the price every third month to adjust it to the market situation. Each farmer group collaborating with Deepa are in charge of the transportation which means that they have to organize the transports with a third part. In addition, the farmer groups have to purchase a weighing scale to be able to fill the bags with the precise amount of potatoes, they have to open a bank account and rent a store that could be used as a collection central.

Another farmer group is active in Olokurto/Narok. They have a group committee responsible for marketing. The contract that exists between the farmer group and the firm, Steers, is for one year and should then be reviewed. The farmers have been taught about the potato size required and the grading by the firm. Steers sends a truck from Nairobi to collect the potatoes. A committee member from the farmer group joins the trip back to Nairobi and a technical assistant comes along the whole journey. The cost for the transport is then subtracted from the sales, which only includes the accepted potatoes. The payment is made to the committee member who deposits it on the group's bank account. The farmers are then paid in cash by the committee, who also receives a small percentage for their marketing work.

Contract Farming in Zimbabwe

Woodend (2003) examines the potential of contract farming in Zimbabwe. Contract farming has been present in Zimbabwe since the 1950s. The contractual arrangements vary in design and contents, from verbal agreements to formal, written contracts. The government has targeted contract farming in their National Economic Revival Programme and aim at facilitating small-holders access to inputs and markets. The case studies of contract farming in Zimbabwe which are of interest for this study include the value chains of cotton, horticultural products and tea.

Cotton

The Cotton Company of Zimbabwe (COTTCO) is the largest cotton company in the country, accounting for approximately 80 percent of the national crop. From the beginning it was government-owned, but it became privatized in the mid-1990s. When the case study was undertaken, COTTCO was contracting about 55 000 – 60 000

smallholders. The farmers are contracted individually and the contracts are written and detailed. Contracted farmers are provided with inputs such as seeds, fertilizers, pesticides and picking bags and in addition tillage and transport. The payment to farmers is made by a combination of cheque and cash. The farmers are organized into groups and if one of the farmers fails to repay his or her loan, or if anyone sells their produce to another buyer, the whole group is penalized.

Horticultural products

Hortico agrisystems, a subsidiary to a well-established, private owned and export-oriented horticultural company, owns and manages an out-grower scheme of 4 000 smallholders, of which 60 percent are women. The crops grown by the farmers are baby corn, mange tout, sweet corn, fine beans and butternut. The contracts are individual and apply to a specific crop. One reason to this is the company's fear of farmers organizing themselves to promote their own interests. Another motive could be that Hortico wants to control the farmers and that it is easier to take advantage of single individuals. Hortico limits the plot size of the farmers in order to obtain control of the production and quality. Inputs are provided on credit in addition to technical assistance, training and transport. The prices consist of one fixed, predetermined part and another one that is adjusted to the prices on the international market. It is paid to the farmers by cash or cheque. Most of its contracted farmers are located in regions close to the capital Harare. The contracting scheme has been successful and few disputes have been experienced. The farmers do rarely sell their produce to other buyers and put trust in the company. As well, Hortico has a long-term working relationship based on mutual respect and trust with the smallholders.

Tea

The tea production in Zimbabwe is rather small internationally, but makes an important contribution to the foreign exchange and brings an income to many smallholders. In 2002 the out-grower schemes produced 7.1 percent of the total tea produce of which half was grown by small-scale farmers. The case study of contract farming in the tea value chain includes three major tea-estates.

The first firm is Tanganda Tea Company. It engages approximately 700 smallholders who are all located in close proximity to the factory. The duration of the contracts is indefinite, which means that no fixed time limit is determined. The contracts are mainly oral but conducted in both English and the local language. The company provide the farmers with seedlings and fertilizers on credit, and technical assistance and transport for free. The scheme has proved successful and few farmers fail to repay their loans for seedlings and fertilizers. Contributing factors to the good results include simplicity of contracts and low costs.

The second company is Southdown Tea Estates and it has about 800 contracted small-scale growers. The contracts are written and imply that the company provides inputs on

a 90-day credit facility. In addition, Southdown offers free collection of the tea, tillage, training and supervision particularly arranged to benefit smallholders. Against this, the farmers commit to sell all their harvest to the company.

The third tea company is ARDA Katiyo Estates and it is state-owned. The firm has contracts with approximately 1 500 small-scale producers. The contracts are not written and the duration of them is one year. They are arranged with individual growers or with farmer groups. The company provides the farmers with seedlings and fertilizers on credit, as well as technical assistance and transport. However, when farmers deliver the tea leaves they are charged a fee for transportation and administrative services in addition to the loan repayment. They are paid a fixed price determined by the weight of the leaves and complementary price depending on the revenues from the processed tea sold at the world market. The contracts do not oblige the farmers to sell their tea to Katiyo. However, most of the farmers do not have other options since Katiyo holds a monopsonistic position. A number of factors have contributed to the efficiency and sustainability of Katiyo's out-grower scheme. For instance that the system is simple and easy for the farmers, the relationship between the growers and the company is based on trust, farmers have few alternatives to grow other crops in the areas since they have been planted for tea and the scheme has generated a profit for both farmers and the company.