

Contract Farming in Sub-Saharan Africa: An Empirical Review

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Abstract

Contract farming may be defined as agricultural production carried out according to a prior agreement in which the farmer commits to producing a given product in a given manner and the buyer commits to purchasing it. Proponents of contract farming argue that it links small-scale farmers to lucrative markets and solves a number of problems small-scale farmers face in diversifying into high-value commodities. Opponents argue that the imbalance in power between the buyer and the farmer leads to an agreement unfavorable to the farmer. A large majority of empirical studies suggest that contract farming schemes raise the income of farmers participating in the schemes. Contract farming schemes typically face a number of challenges that limit their ability to deliver inputs, credit, and technical assistance to small-scale farmers like side-selling, unwillingness of the company to pay the negotiated price and use quality standard to evade their commitments and high cost of working with large numbers of small-scale farmers. So, government policy should be to facilitate the development of contract farming schemes and developing countries can also promote pro-poor contract farming by creating a conducive policy environment.

Keywords: Contract Farming, Small- Scale, Farmers, Sub - Saharan Africa

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1. INTRODUCTION

Developing regions like sub – Saharan Africans small farmer face a number of constraints that limit their productivity. Lack of information about production methods and market opportunities, particularly for new crops and varieties, lack of the necessary financial reserves to invest in new crops, and their access to credit which is limited by the lack of collateral, and small farmers operating near subsistence are understandably more risk averse than larger farmers are the major constraints. Due to this they often prefer to assure themselves a minimum supply of food before expanding production of cash crops for an uncertain market.

Contract farming has the potential to solve several of these constraints simultaneously. This why it attracts the interest of researchers and policymakers. Contract farming may be defined as agricultural production carried out according to a prior agreement in which the farmer commits to producing a given product in a given manner and the buyer commits to purchasing it. Often, the buyer provides the farmer with technical assistance, seeds, fertilizer, and other inputs on credit and offers a guaranteed price for the output (Eaton and Shepherd 2001).

Large-scale farming also solves these problems in that large farmers have better access to credit, better information about production and marketing methods, and greater tolerance of risk. However, these advantages are offset by the higher costs and lower motivation of hired laborers compared to family members. Studies suggest that large- scale agriculture has become prominent in Kenya, Zimbabwe, and South Africa largely because of policy distortions which favored larger farmers (Deininger and Binswanger, 1995). Thus, contract farming is seen as a way to combine the advantages of large-scale production with the strengths of small-scale production.

Although reliable estimates are not available, international trends in agriculture suggest that the prevalence of contract farming may well be increasing in developing countries. The growth of high-value agriculture, the expansion of agricultural processing in developing countries, the consolidation in the retail food sector, and the increased demand for quality and food safety are all driving the need for vertical coordination in agricultural supply chains (Gulati et al. 2006).

However, the impact of contract farming is the subject of debate. Among proponents, contract farming is seen as a solution to the problems of information, credit, and market risk that small farmers face in commercial production. They see contract farming as facilitating the integration of small farmers into commercial agriculture, leading to income growth and poverty reduction. Critics, on the other hand, see contract farming as a way for large firms to take advantage of the land and poverty of small farmers, effectively paying them less than the minimum wage and taking control of their farms. The integration of small farmers into commercial agriculture is seen as a negative trend, leading to higher risk, indebtedness, and income inequality (Little and Watts 1994; Singh 2002).

The purpose of this article is to critically review the literature on contract farming to assess the experience with contract farming in developing countries, emphasizing its impact on small-scale farmers in sub-Saharan Africa, as well as to the challenges facing contract farming.

This review is organized as follows. Section 2 reviews experience with contract farming to help understand the main issues of the impact of contract farming on participating farmers and participation of small-scale farmers in contract farming schemes. Before concluding in Section 4, we illustrates in section 3 the challenges facing contract farming.

2. EXPERIENCE WITH CONTRACT FARMING

2.1 Impact of contract farming on participating farmers

Little and Watts (1994) pointed out a more skeptical view of the benefits of contract farming by compiling a set of seven case studies on contract farming in Sub-Saharan Africa. The case studies focus on the historical and political context of contract farming, conflicts between farmers and the contracting firms, the imbalance of power between the two parties, intra-household tensions over the division of labor and the allocation of new revenues, and the increasing rural inequality as contract farmers grow wealthy enough to hire farm laborers. In his summary of the cases, Little (1994, 221) concludes that incomes from contract farming increased for a moderate (30–40 percent) to a high (50–60 percent) proportion of participants. This income was not enough to live on, however, and farmers had to rely on other farm and nonfarm income. In several cases, households lost land that was appropriated for government-run contract farming schemes.

In a review of the experience of contract farming in Africa, Porter and Phillips-Howard (1997) conclude that farmer incomes are raised by contract farming, but they focus on social problems that it may cause, including lack of control over production, imbalance of power, income inequality, and intra-household conflict. They also note that contract farming schemes may be established on land appropriated from local communities. They propose a number of policies to limit the adverse effects of contract farming, including protection of property rights and independent mediation in case of disputes.

Warning and Key (2002) study contract production of groundnuts in Senegal to compare income and other outcome variables for contract farmers and other similar farmers. NOVASEN, a private cooking-oil manufacturer, contracted with 32,000 growers and produced approximately 40,000 tons of groundnuts annually. Warning and Key find that the increase in gross agricultural revenues associated with contracting is statistically significant and large, equal to about 55 percent of the average revenue of noncontract farmers. They argue that the leverage of contract farmers is increased by the existence of parallel markets for the groundnuts.

Contract farming is used to produce organic coffee in eastern Uganda. The company contracts close to 4000 coffee farmers, providing technical assistance and organic certification. Bolwig et al (2007) compare farmers in the scheme with a control group, showing that there are positive revenue effects from participating in the scheme, even after controlling for a variety of other factors.

Thus, the weight of evidence suggests that successful contract farming schemes generally raise the incomes of farmers who join them. The cases where contract farming does not improve farm income or at least reduce income volatility are often short-lived as the scheme collapses.

2.2 Participation of small-scale farmers in contract farming schemes

Even if farmers benefit from their contractual relations with processors and exporters, there is still the issue of whether small-scale farmers are able to participate in contract farming schemes. Some critics of contract farming argue that firms tend to work with medium and large-scale farmers (Little and Watts 1994). If so, contract farming may be an interesting institutional mechanism for vertical coordination, but it would have less relevance for poverty reduction strategies. In fact, by contributing to income inequality, it may exacerbate tensions between the social groups in rural areas.

A number of studies examine the proportion of contract farmers that are smallholders, as an indicator of the pro-poor impact of contracting. Guo et al. (2005) use data from farm-level surveys in China covering several products to estimate the likelihood of participating in a contract farming scheme as a function of household characteristics, crop mix, and farm size. The results show that small farmers are less likely to participate in contract farming than larger farmers.

Key and Runsten (1999) look at contract farming by the tomato-processing industry in Mexico. Multinational agro-processors from the United States first contracted with large growers but then involved small growers, partly because as a lucrative market for fresh tomatoes developed, firms found it increasingly difficult to enforce contracts they had with larger growers.

In the study of groundnuts in Senegal, Warning and Key (2002) compared contract and independent farmers by various measures of assets. They found that indicators of asset ownership were not significant predictors of participation in the contract farming scheme, suggesting that contractors were typical rural households. In the study of contract farming in Indonesia, Simmons et al. (2005) found that contract seed growers had larger farms than independent growers, but contract poultry producers tended to be smaller than independent poultry growers.

A few studies give examples of buyers shifting from small-scale to large-scale farmers or the reverse. One example, cited in World Bank (2006), is an exporter in Thailand that started producing its own horticultural products on company land and later shifted to smallholder contract production.

Minot and Ngigi (2004) describe the evolution of several contract farming schemes in Kenya, including one (Del Monte pineapple) that gave up on contract production and shifted to vertically integrated plantation production. Maartens and Swinnen (2006) pointed out that Green bean exporters in Senegal switched from small-scale contract production to large-scale contract production. These findings confirm that the comparative

advantage of smallholders is not a static concept, but it can change as farmers and buyers experiment and learn from experience.

The fact that contract farming schemes occasionally switch from large-scale to small-scale farmers suggests that the cost differences between them is small, which implies that public policy may be able to play a role in encouraging the participation of small farmers in these supply chains.

3. CHALLENGES FACING CONTRACT FARMING

Although numerous studies confirm that contract farmers' gain from participation, the studies also reveal frequent problems in these schemes. In fact, there is a relatively high rate of failure for contract farming schemes in developing countries. This is particularly evident in Kenya, which has a history of contract farming going back to the colonial period. Reviews of the evolution of contract farming schemes in Kenya reveal a high rate of turnover as schemes collapse and new ones are launched (Jaffee 1994; Ngigi and Minot, 2010). Similarly, Sartorius and Kirsten (2004) note "the high level of failure of small-scale farmer contract farming projects in developing countries" (p. 89).

The most common problems in on-going contract farming schemes is *side-selling*, the sale of contracted output to other buyers. In some cases, farmers try to sell to other buyers in order to take advantage of a market price that is higher than the contracted price. In other cases, farmers sell to other buyers in order to avoid repayment of inputs they received on credit. Since the contracts are generally not legally enforceable the only leverage the firm has is to refuse to work with the farmer in the future. The problem of strategic default on credit has been exacerbated in some countries by lax enforcement in government-run credit programs, leading to the perception among farmers that non-repayment is an acceptable option.

A related problem is that when market prices fall below the contracted price, the processor may be attracted to import or purchase from the open market instead of from contract growers. Although the company may be under pressure to respect the terms of the contract, it can impose strict quality standards on the contractors to avoid purchasing from them at the agreed price. The main leverage of farmers is to withdraw from the scheme or to bring the case to local officials for intervention.

Another perennial problem with contract farming schemes is the high cost of dealing with large numbers of dispersed contract farmers. This is mainly true when the company distributes inputs, provides credit, and organizes the collection of the crop. Sartorius and Kirsten (2004) argue that this is one of the main reasons that companies often prefer to work with larger-scale farmers. One solution is to have another organization act as intermediary between the company and the farmers. Alternatively, a farmer cooperative may serve as an intermediary, facilitating the distribution of inputs and technical assistance, as well as the collection of the crop (Coulter et al 2000).

4. CONCLUSION AND POLICY IMPLICATIONS

Contract farming is a marketing institutions that has evolved to reduce transaction costs when there are economies of scale in processing or marketing but not in production, and when spot markets are not sufficient to match supply to quality-sensitive demand.

The first major conclusion of this review is that the empirical evidence supports proponents of contract farming who argue that it often raises the income of small-scale farmers by providing access to credit, technical information, and specialized inputs, while sometimes reducing farm-level risk. At the same time, there is partial support for opponents of contract farming who argue that it may favor medium-scale growers over small-scale farmers, though this depends on the specific circumstances and the policy environment.

Another point is that contract farming schemes typically face a number of challenges that limit their ability to deliver inputs, credit, and technical assistance to small-scale farmers. One of the most common problems is side-selling, when farmers sell to other buyers to avoid repaying loans or simply to obtain a better price. In addition, there are numerous cases of companies who are unable or unwilling to pay the negotiated price and use quality standard to evade their commitments. A third problem is the high cost of working with large numbers of small-scale farmers, those this problem can be ameliorated with the use of farmer organizations or other intermediaries. Because of these problems, there is a relatively high rate of failure in contract farming schemes.

Therefore, goal of government policy should be to facilitate the development of contract farming schemes, particularly those that involve small-scale farmers, but not to impose contracting or provide heavy financial incentives that would result in the use of contracting in situations where it is not appropriate. Developing countries can also promote pro-poor contract farming by creating a conducive policy environment.

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