

Contract Farming in Sub-Saharan Africa: Lessons from cotton on what works and under what conditions

David Tschirley¹, Isaac Minde² and Duncan Boughton³

KEY MESSAGES

1. Contract farming is an economic arrangement entered into by parties seeking mutual advantage. In some instances these arrangements do serve poor farmers who would not otherwise be able to access remunerative agricultural markets.
2. Contract farming appeals to donors and governments because of its potential to link resource-poor smallholder farmers with remunerative, high-value crop markets, and thus to help pull them out of poverty
3. However, certain technical, marketing, institutional, policy and legal conditions need to be in place for contract farming to succeed – the ‘appeal’ factor is not sufficient.
4. A commodity that can be produced, processed, sold and purchased virtually by everyone is not amenable to contract farming due to selling and buying on the side.
5. Governments and development partners need to think carefully before deciding whether it is socially and economically worthwhile to use tax-payer funds to support contract farming. For example, with a crop like maize, which millions of farmers can produce and which has many buyers, it is virtually impossible to satisfy contract farming conditions.
6. Governments should strive to provide a conducive environment (including legal protection and farmer organisation) and to encourage self-regulation by firms and farmer organisations in order for contract farming to perform more efficiently where conditions for it are promising.
7. Because interest in contract farming is due largely to poor performance of markets for seasonal credit and inputs, governments need to promote policies and investments to improve the functioning of factor and product markets, as this would eventually reduce the need for contract farming.

INTRODUCTION

Smallholder farmers in Sub-Saharan Africa (SSA) are among the poorest people in the world. A major reason for their poverty is that, with few exceptions, these farmers are engaged in low intensity production only loosely informed by market opportunities. In trying to break out of this mould, to intensify their production and orient it towards promising markets, they confront their own extremely limited resources, an almost complete absence of formal seasonal production credit, difficulty in accessing needed inputs at reasonable prices, and highly variable output prices. The result is that most of these farmers are unable to access potentially profitable export and high-value local markets, and they remain poor.

In looking for ways to break the cycle of rural poverty development partners, policy makers, and regional economic and political integration bodies have become increasingly interested in the role that contract farming might play in overcoming the constraints mentioned above (Sautier et al 2006; NEPAD 2006; Kirsten et al 2005; Kirsten and Sartorius 2002). The main purpose of this policy synthesis (PS) is to address that question by identifying the necessary and sufficient conditions for contract farming to emerge and persist. In doing this, the PS should assist governments and development partners in the region to understand what they might be able to do – and what they should not do – in promoting contract farming.

¹ Professor of International Development, Department of Agriculture, Food and Resource Economics, Michigan State University, Michigan

² Principal Scientist (Economics), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Bulawayo, Zimbabwe

³ Associate Professor, International Development, Department of Agriculture, Food and Resource Economics, Michigan State University, Michigan.

We first briefly review what contract farming is, the various forms it can take, and the countries and crops of East and southern Africa (ESA) where it has been most prominent. We then present conceptual background that helps in understanding the conditions under which contract farming has a realistic chance of being successful. Because cotton is by far the most widely produced crop under contract farming arrangements across the continent, we then review results from a recent continent-wide study that highlights the conditions under which contract farming of cotton has been sustainable, how contract farming has performed for farmers and processors under varying circumstances, and under what conditions it has failed.

What is contract farming and what forms can it take?

Contract farming can be defined as active vertical coordination between growers of an agricultural product and buyers or processors of that product. It usually involves a large agribusiness firm entering into contracts with smallholder farmers (either in groups or independently), or even large commercial farmers, to provide the farmers with inputs on credit and extension in return for guaranteed delivery of produce. In Africa, these contracts are typically verbal, but in some cases can be written.

Contract farming can also be considered as a form of business governance that emerges in response to failures of input, credit, insurance, and output markets. In dealing with varying combinations and intensities of these

constraints contract farming can take many forms. Common classifications of contract farming are market specification, resource providing, and production management (Key and Runsten 1999; see also Warning and Soo Hoo 2000). Market specification contracts are pre-harvest agreements that bind the firm and the grower to a particular set of conditions governing the sale of the crop. These conditions often specify price, quality requirements and timing of the sale. Resource providing contracts oblige the processor to supply crop inputs, extension, or credit in exchange for a marketing agreement. Production management contracts bind the farmer to follow a particular production method or input regime, usually in exchange for a marketing agreement or resource provision. These types of contracts are not mutually exclusive; elements of more than one are often combined, depending on the circumstances in which processors and farmers find themselves.

Spread of contract farming in ESA

Contract farming has governed the production and marketing of a wide range of cash crops throughout the developing world for many decades.⁴ Table 1 summarises selected contract farming arrangements in ESA; the table is not exhaustive, but does cover the major contract farming arrangements in each country. According to NEPAD (2006), all the cotton and tobacco produced in Mozambique, 90% of cotton in Malawi, and 70% of cotton in Zimbabwe, is done through contract farming. In Zambia, 100% of paprika, tobacco and cotton are produced through

Table 1. Selected examples of contract farming (CF) in East and Southern Africa

Country	Crops	Comments
Kenya	Tea, sugar, export horticulture	Tea and sugar have had very stable CF arrangements for many years. CF in export horticulture has been less stable, depending on the crop, conditions in the external market, policy and local factors
Malawi Mozambique	Cotton Cotton, tobacco, paprika	90% produced under CF with smallholder farmers. CF has persisted for 20 years in cotton and over a decade in tobacco. ~100% of these crops are produced under CF with smallholder farmers. The paprika scheme has failed.
South Africa	Various	CF covers many commodities, and contracts tend to be more sophisticated. This is made possible by higher levels of education among farmers and more effective legal and regulatory systems in the country.
Zambia Zimbabwe	Cotton, tobacco, paprika Cotton	Nearly all produced under CF. About 70% produced under CF. Prior to the prolonged economic crisis, the ability to purchase inputs reliably on the market allowed many farmers to produce cotton outside of CF arrangements.

⁴ See Glover (1990) for a review of experience in ESA through the late 1980s. See Bithal et al (2005) for several case studies from India, and Zola (2007) for a broader review in Asia. Kirsten and Sartorius (2002) provide more recent information for Africa.

this system. In Kenya, contracted farmers produce 60% of tea and sugar, and all the country's tobacco. For over one and half decades, the successful horticultural and flower export industries in Kenya have been primarily based on contract farming involving both smallholders and large commercial farmers, with their proportions changing in the production system from year to year (Harris 1992; Dolan and Humphrey 2000). In South Africa, contract farming is widespread across commodities as well as being more sophisticated compared to contracts in other countries of the region (Vermeulen et al. 2006). There are many permutations of these contracts with regard to types of commodities, length of contract period, and the proportions of smallholder and large scale commercial farmers.

There are several conditions that have to be in place for contract farming to deliver in accordance with expectations. Some of these are characteristics of the participating private firms, the characteristics of the commodities in question, the competitive pattern among those firms, and the institutional means by which they procure raw materials for processing and export (Jaffee 1994; Benfica et al 2002). These factors will be examined in the next sections.

CONCEPTUAL BACKGROUND

Contract farming is only one of many different ways in which the production, marketing, and processing of an agricultural commodity can be organised. Conceptually, contract farming lies in a broad middle ground between what economists call spot markets – 'arms-length' transactions that require no previous or continuing relationship between transacting parties – and full vertical integration, in which one firm produces and processes the commodity, with no intervening transactions. This section briefly addresses the factors that will tend to favour the emergence and persistence of contract farming over these other types of arrangements.⁵

One function of contract farming is to manage risk and allocate it between producer and contractor. The specific allocation of risk between the parties depends on the nature of the contract. If a contractor provides input credit, then in practice it most often shares production risk with farmers, since poor production typically results in some level of credit default. Yet by entering into contracts with a target number of farmers, even if it shares some of the farmers' production risk, the contractor may reduce its total volume of risk compared to relying on spot markets. If the contractor provides a fixed price guarantee to farmers, then it absorbs price risk on both sides of its transaction, yet, since some contractors can effectively manage risk on the sales side (through use of forward and futures markets), total price risk may be reduced relative to a non-contract situation in that crop or business.

Contract farming will emerge and persist only if all actors have sufficient incentives to engage in it, if the technical characteristics of the crop and its market are conducive to contract farming, and if the enabling environment supports it (Figure 1).⁶ The ultimate incentive is the desire for higher and more reliable profits by all parties to the contract. In SSA, the desire for contract farming on the part of governments and farmers typically grows out of the weakness of markets: output markets are often unstable and unreliable, smallholder farmers frequently cannot obtain specialised inputs, and credit markets are typically absent for small farmers. As a result, it is exceptionally difficult for such farmers to intensify their production and generally to take advantage of attractive market opportunities. Crops that require substantial purchased inputs and where there is an emphasis on quality may not be produced at all under these circumstances. Government and farmers often see contract farming as a quick solution to all these problems, providing inputs on credit to farmers and guaranteeing the purchase of their output.

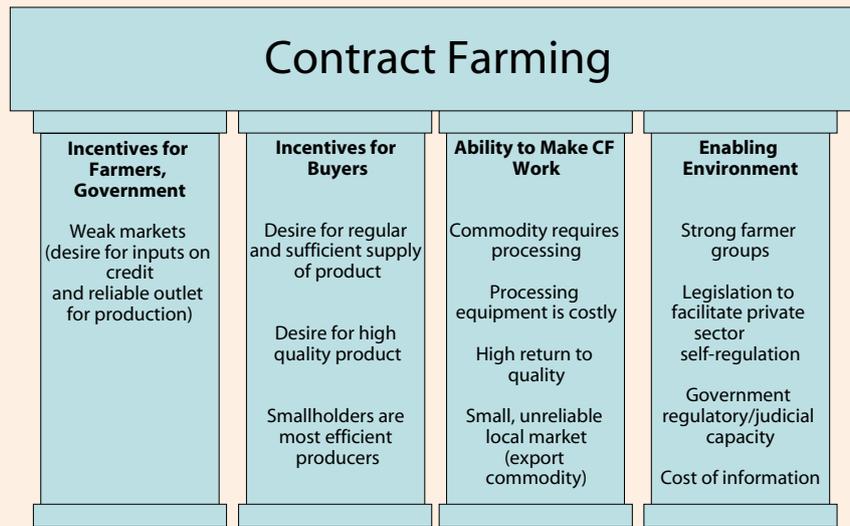
For potential buyers, the incentive to try contract farming often stems in the first instance from a need to ensure a regular and sufficient supply of the product. This need – and the willingness to try contract farming – becomes greater when the buyer is a processor, and especially when the processing equipment is expensive, since expensive, under-utilised equipment imposes a heavy cost burden on the processor. Buyers might have additional incentives to try contract farming if the market they are selling into requires high quality, and if production and post-harvest practices of farmers have a big effect on final quality. In these circumstances, buyers may be able to influence the behaviour of farmers positively with regards to quality by relating to them more closely. None of these conditions will be relevant if smallholder farmers are not the most efficient producers of the commodity. Thus, for example, sugar is infrequently produced under contract farming because economies of scale in production and transport often make estate production more efficient.

A desire for contract farming is, however, not sufficient to cause it to emerge and persist. The ability to make contract farming work depends fundamentally on the assurance that the buyer – who is also providing inputs on credit – has the ability to purchase all the production of the farmers he is supporting. If buyers cannot do this they will not achieve their primary goal of maximising throughput in their processing facility, and they will also be at risk of not recovering the input credit they extended to farmers. The assurance of being able to buy the production they supported depends crucially on the number of buyers. If there are many buyers, it becomes highly likely that some will not provide support to farmers and will be able, by paying higher prices, to induce farmers who received support from other buyers to default on their input loans. This is the origin of the side-selling problem that has

⁵ Space does not permit exhaustive treatment of this topic. For more in-depth treatment see Minot (1986), Glover (1990), Delgado (1999), and Simmons (2003).

⁶ See also Figure 1 in Simmons (2003), for more detail on factors affecting CF.

Figure 1—Global and Southern African Food Price Indices - 2007-08



undermined so many contract farming operations in SSA. The number of buyers needed to create this side-selling dynamic is often surprisingly low (10 to 20) (Tschirley et al 2008).

So contract farming is unlikely to emerge, or to persist, unless the number of buyers of the farm product is fairly restricted. Several factors can contribute to such a restricted number of buyers. First among these is if the product requires processing prior to use, and if the processing equipment is costly. These factors also increase the incentives for a buyer to engage in contract farming, and thus emerge as key conditions for contract farming to be successful. Other factors which might contribute to a restricted number of buyers are if the local market is small and unreliable compared to the export market, and if the export market has high quality standards and pays a high quality premium; all traders will not be able to operate successfully in such an export market.

The enabling environment is the final factor influencing the emergence and persistence of contract farming. Strong farmer groups can facilitate contract farming by reducing the cost and risk of providing input credit. Legislation that is fine-tuned to the challenges facing a particular industry, especially when it facilitates private sector self-regulation to reduce the risk of contract farming, can also be very important. Self-regulation refers to a situation in which buyers (firms) and farmers (sellers) develop mutually agreeable regulations to ensure that there is a mutually profitable outcome from their contractual agreement. This type of regulatory approach is especially important when the number of buyers in a sector is relatively limited – making contract farming potentially feasible – but where established firms can be subject to periodical intense competition from less established firms. Under these circumstances, legislation that allows firms and farmers to collaborate in setting and enforcing clear rules of the game, that protect the interests of both buyers and sellers,

can determine whether contract farming is able to persist or is undermined by side selling. In situations where there are more buyers the regulatory capacity of governments – monitoring behaviour and imposing sanctions when it departs from accepted norms – and the effectiveness of their judicial systems – for contract enforcement – become more important. Finally, technology, infrastructure, and policies that reduce the cost of information can facilitate contract farming by helping firms to avoid providing credit to farmers with poor credit records (this is referred to as the adverse selection problem in economic jargon).

Several conclusions can be drawn from this brief review. First, basic food staples in Africa almost never lend themselves to contract farming, primarily because they have thousands of potential buyers at farm level. Large buyers who may have the financial ability to engage in contract farming will therefore not take the risk of doing so. The fact that these crops can often be produced with limited or no use of purchased inputs also reduces the need for contract farming. Second, crops that combine robust local markets with the ability to be consumed without industrial processing are unlikely to support contract farming, even if these crops are perishable or have high quality standards. Many local horticultural crops fall into this category (tomato, cabbage, green leafy vegetables). Third, not all export crops that require processing, even those with high quality premiums, will support contract farming. Cashew in East Africa is a good example: the crop does not necessarily require inputs at farm level, its relatively high value allows it to be exported to India prior to processing, the processing technology is not excessively expensive and is highly scalable, and processing technique – not just farm and post-harvest practices – has a major impact on quality premiums. All of these characteristics combine to make contract farming for cashew an unattractive option for buyers. Finally, the enabling environment, especially regulatory approaches that are attuned to the particular challenges facing a sector, are a key factor in facilitating contract farming, even when other positive factors are in place.

Among crops that can be efficiently produced by smallholder farmers, the best candidates for contract farming are export crops that require purchased inputs to be profitably produced, that have meaningful quality premiums and whose quality is strongly affected by farm level practice, and that require relatively costly processing before use. Crops in SSA that combine all these factors, though in varying degrees, include tobacco, tea and cotton. Some horticultural export crops also present many of these characteristics, though the empirical record of contract farming in such crops is mixed. Because cotton is so widely grown by smallholder farmers in SSA, the next section focuses on the institutional arrangements that have emerged for it across the continent.

CONTRACT FARMING OF COTTON IN SSA

Recent work on cotton sector reform across nine SSA countries shows great institutional diversity over time and across countries (Tschirley et al. 2008). The work is based on a typology of African cotton sectors that is highly predictive of how a cotton sector will perform on the range of challenges it faces. Results from this work strongly corroborate the point made above, that even a crop like cotton, which has many of the technical production, processing, and marketing characteristics needed to support contract farming, will often not support it unless additional enabling environment factors are in place. Table 2 summarises key information from the typology regarding the feasibility of contract farming for cotton in different circumstances.

National monopolies were a widespread institutional response to support contract farming in cotton prior to the wave of reform which swept the continent from the mid-1990s. These arrangements predominated throughout West and Central Africa (WCA) and were also found in Zimbabwe and Zambia in southern Africa. They continue today in Mali, Cameroon, and a few other countries of WCA, but may soon be abandoned in most of those countries. These systems were based on an explicit recognition that competition for seed cotton would undermine the ability to provide smallholder farmers with inputs on credit and extension advice. The systems enjoyed enormous success in WCA for many years (helped in part by heavy initial support from France), driving yields well above worldwide rain-fed averages by the mid-1980s and generating huge increases in total production. Total seed cotton production in WCA

increased six-fold from 1970–75 to 1996–2000, and the region's share of world cotton production quadrupled. Since about 1990, however, yields have stagnated, management of the parastatal cotton companies has often become increasingly inefficient and even corrupt, and the cotton sectors in several countries have suffered huge deficits that have affected the macroeconomic stability of the countries. Substantial reform in response to these problems has occurred in Burkina Faso, Benin, Ivory Coast and other countries (Tschirley et al. 2008).

Local monopolies are another institutional arrangement that explicitly recognises the difficulty of supporting contract farming in competitive markets. Under this arrangement, several ginning companies each have a geographical area in which they enjoy exclusive legal rights to promote cotton and to buy all cotton production. The system has been in place in Mozambique since the late 1980s, and allowed for sufficient provision of inputs for the crop to grow rapidly even during the last years of the civil war. A number of factors, however, have combined to keep productivity levels and prices among the lowest in SSA. From 1995 to 2005, Mozambique paid an average of 50% of the adjusted international price to farmers, compared to a range of 58% to 70% among the eight other countries studied.¹⁰ Farm yields of 575 kg/ha of seed cotton were comparable to Uganda and Tanzania, but compared poorly to a range of about 700–1200 kg/ha in the six other study countries. Very weak regulatory capacity, management cultures in many of the original companies that did not emphasise productivity and quality and the continuing effects of extreme rural poverty and low literacy all contribute to these results. Mozambique continues to search for ways to improve performance. In WCA, Côte de Ivoire and Burkina Faso have moved to this model,¹¹ and Mali is scheduled to do so very soon. Tschirley et al (2008) suggest that the model is likely to perform better in WCA than it has in Mozambique due to decades of previous investment there in research, input provision, and extension, but that the approach is probably best viewed as a medium-term transition to more flexible arrangements.

Concentrated, market-based systems emerged in Zimbabwe and Zambia as these countries sold their national monopoly parastatals. Lintco in Zambia was sold to two companies (Lonrho Cotton and Clark Cotton) which have largely dominated the sector since that time.¹² The Cotton Marketing Board in Zimbabwe was privatised into a single company, Cottco. Cargill entered the market a short time later and these two companies (with Cottco as the

⁷ See Jaffee (1994) for evidence from Kenya of the evolving nature and periodic failure of contract farming in export vegetables, and periodic shifting between spot markets, contracting, and vertical integration. Notably, the most stable contract farming arrangements in Kenya have been in tobacco and tea.

⁸ Tschirley et al. (2008) assessed performance on process indicators (lint quality, prices to farmers, input provision, extension, valorisation of by-products and research) and outcome indicators (yield, company cost efficiency, farmer welfare, overall sector competitiveness in world markets and macroeconomic impact). See the full report for more detail.

⁹ In Mali, farmers boycotted the crop in 2000/01 due to low prices and perceived corruption within Compagnie Malienne de Développement des Fibres Textiles (CMDT). Top managers in CMDT were eventually sent to jail for financial mismanagement.

¹⁰ The international price was adjusted back to the factory gate based on exchange rates and transport and other costs. See Tschirley et al. (2008) for more detail.

¹¹ In Côte de Ivoire this model has since broken up and it is moving towards a competitively structured system, see below

¹² Lonrho was purchased by Dunavant in 2000 and Clark by Cargill in 2006.

Table 2. Market and regulatory structures of cotton sectors in SSA, and whether they lend themselves to contract farming

Sector type (based on market structure and regulatory set-up)	Countries with the type	Key characteristics	Is contract farming feasible?
National monopoly	Mali, Cameroon	One parastatal firm with sole legal right to promote and purchase cotton.	Yes, because the regulatory set-up allows only the single national parastatal to purchase cotton. Has achieved great success, but suffers from mounting inefficiency.
Local monopoly	Burkina Faso, Mozambique	Multiple firms, each with their own geographical area in which they have the exclusive right to promote and purchase cotton.	Yes, because in principle the regulatory set-up allows only one firm within a geographical area to promote and purchase cotton. In practice, these systems do experience credit default rises, due to weak regulatory capacity, but CF has persisted for 20 years in Mozambique.
Concentrated, market-based	Zambia, Zimbabwe	Two- to three dominant firms with varying numbers of other, much smaller firms. No legal limits on competition.	Yes, because the small number of large players reduces the risk of default. Credit default crises do occur, and the entry of more firms in both countries in recent years has made contract farming more difficult. But CF has persisted since 1994 (when parastatals were privatised) in both countries.
Competitively structured	Tanzania Uganda *	Many buyers, none dominant. No legal limits on competition. This is a special case with many buyers but with regulated competition.	No, CF fell apart after these systems were liberalised immediately (1994) and has never re-emerged. CF fell apart shortly after liberalisation and re-emerged only when a complex regulatory structure was imposed, which limited competition among ginners.

leader) dominated the sector into the early 2000s. These systems are viewed as the best performers over the past 10–12 years, performing relatively well on a wide range of indicators, especially input credit provision and lint quality. Prices to farmers, however, have been relatively low. Additionally, each sector has been subject to periodical intense pressure from new competitors, many of whom do not share the existing firms' commitment to increasing farm level productivity, nor to protecting quality. These competitors have generated serious credit default crises in Zambia in 1999/2000 and again in 2006/07. Due to the absence of an appropriate regulatory framework, both sectors are now moving towards more competitive structures. Though the original lead companies remain the strongest players, input credit provision has become more difficult, potentially undermining long-term productivity growth. Lint quality has also fallen substantially in Zimbabwe, though in Zambia it remains perhaps the highest in SSA.

A key conclusion about these sectors is that they require a highly collaborative self-regulatory approach among private actors, facilitated but not dominated by government. This approach should feature limited barriers to entry (licensing rules that specify strict capabilities and conduct of firms wishing to participate in the sector) to defend the ability of firms within the sector to coordinate on input supply, extension, quality control, and perhaps other matters. To protect farmer interests, the regulatory structure should probably also include price setting mechanisms that are more formalised than the price leadership by the leading private firms that has prevailed in concentrated systems so far.

The pre-reform cooperative-based cotton systems in Tanzania and Uganda led quickly after reform to competitively structured sectors with 20 to 30 independent buyers competing for farmer production. Price competition was intense and farm prices improved, but each country witnessed the collapse of input supply and extension. The competitive model was not able to support contract farming in either country. Lint quality also deteriorated in Tanzania. As a result, the two countries in ESA that most closely approached the competitive ideal in market structure saw the most direct and persistent government involvement to ensure input provision to farmers. These efforts have taken changing forms in each country over time, with no definitive solution in either case to the input credit and quality problems unleashed by reform. A key conclusion about these systems is that, once a sector becomes competitively structured, it is difficult or impossible to move back to a more concentrated system in efforts to improve performance. While Tanzania has seen growing (but unstable) production under its system, this is attributed largely to agro-ecological endowments (abundant rainfall and surplus fertile land) not shared by WCA. The report cautions that a competitively structured system is likely to perform poorly in WCA (Tschirley et al. 2008).

IMPLICATIONS FOR PROMOTING CONTRACT FARMING IN ESA

This brief review helps to highlight some issues that governments need to keep in mind as they consider promoting contract farming.

First, contract farming should not be viewed in the first instance as a service to the poor, the disadvantaged, and the unorganised. Rather, it is an economic arrangement entered into by parties seeking mutual advantage. In some instances these arrangements do help poor farmers who would otherwise not have access to remunerative agricultural markets.

Second, governments and donors need to realise that contract farming in SSA is largely a response to failures in the markets for agricultural credit and inputs. As economic growth and good policy allow these markets to strengthen the desire for contract farming on the part of both farmers and processors will diminish, though there will still be instances where the parties find it advantageous (primarily export markets with high standards on quality, timeliness, and food safety). So as a first priority, governments need to work to create a policy environment that encourages strengthening of input and credit markets, so that processing firms and farmers have less need for contract farming arrangements.

Third, governments should avoid promoting contract farming when the production and marketing characteristics of the crop do not lend themselves to such an arrangement (see Incentives for buyers and Ability to make CF work in Figure 1). For example, in a situation with many potential buyers of the crop as is the case for maize, contract farming cannot thrive and governments should not support contract farming (Key and Runsten 1999). If private firms wish to attempt contract farming under those conditions, that is their choice, but it is not one that should benefit from public or donor funds.

Fourth, contract farming is most likely to emerge and persist when a market features few buyers and many disorganised producers with limited assets and production opportunities. Under these circumstances, farmers can benefit from the services offered by the firms, but will depend on the firms' good will (or long-term vision) to receive good prices: frequently, prices will be low. Rather than intervening to directly influence prices, it is likely to be more effective for governments to help smallholder farmers to organise themselves through the formation of farmer groups, farmer associations and farmer cooperatives. This has advantages to both the firms (lowering of transactions costs and real marketing costs) and to the smallholders (raising their ability to negotiate with firms through increased collective action). In the end this enhances public-private-farmer partnerships.

Fifth, contracts are more likely to work in an environment where there is a functioning legal system that helps reduce enforcement costs by the contractor and at the same time ensures that the smallholder farmers are protected against any undue exploitation, which may occur through agribusiness firms abusing their market power. Governments can reinforce the labour cost advantage of smallholder farms by enforcing labour laws, the minimum wage, and work place health standards on large farms.

For example, Malawi has established guidelines for dispute resolution in agricultural contracts and offers the services of an officer of the Minister of Labour for mediation (Simmons 2003). Malawi is also now embarking on a study

on contract farming meant to update these guidelines (Njiwa 2008). In Zimbabwe, at a national workshop on contract farming sponsored by the Netherlands Development Organisation (SNV) (12 March 2008), the government indicated that it is high time the legal environment on contract farming is reviewed.

Sixth, in promoting input market development, government policy should weigh the benefits of a particular policy against the costs of discouraging contracting with smallholders (Key and Runsten 1999). For example, contract farming cannot survive in situations where there is competition between government and firms on the real cost of the inputs provided by the two parties – as is the case for subsidised fertiliser in Malawi and Zimbabwe in recent years. Government policy should aim at providing an environment that creates continuing viability and fair distributional effects of contracts (Simmons 2003).

Finally, the best regulation is sometimes self-regulation by private sector stakeholders, facilitated by government. This is typically the case in a sector where firms that are already providing input credit to farmers are threatened by new entrants that do not share a commitment to input provision, but who want to benefit from the work that established firms have done. In these cases legislation that allows processors, in collaboration with farmer organisations, to regulate their sector and punish behaviour that undermines contract farming can be very helpful. The cotton sectors in both Zimbabwe and Zambia are currently working with their governments to create the legal basis for forming sector stakeholder groups that could engage in this type of self-regulation. Effective self-regulation of this sort requires that farmers be informed and actively engaged in the process, something which is hard to do in many countries given the weak state of farmer organisations. Thus, support to existing farmer groups to increase their ability to represent themselves in such forums is a key investment to make contract farming more sustainable and equitable for all involved stakeholders.

REFERENCES

- Benfica R, D Tschirley and L Sambo (2002). The Impact of Alternative Agro-Industrial Investments on Poverty Reduction in Rural Mozambique. Ministry of Agriculture and Rural Development Research Paper 51E. Maputo.
- Birthal P, PK Josi and A Gulati (2005). Vertical coordination in high-value food commodities: implications for smallholders. MTID discussion paper No. 85. International Food Policy Research Institute. Washington DC.
- Chizarura L (2007). Cotton contract farming in southern Africa. Southern and Eastern African Trade, Information and Negotiations Institute (SEATINI) Bulletin. 10(7), July 2007.
- Delgado C (1999). Sources of growth in smallholder agriculture in sub-Saharan Africa: the role of vertical integration of smallholders with processors and marketers of high value-added items. *Agrekon*, 38, 165-189.
- Dolan C and J Humphrey (2000). Governance and trade in fresh vegetables: the impact of UK supermarkets on

- African horticulture industry. *Journal of Development Studies* 37(2), 146-176.
- Glover D (1990). Contract farming and outgrower schemes in East and southern Africa. *Journal of Agricultural Economics*. 41, 303-315.
- Jaffee S (1994). Contract farming in the shadow of competitive markets: the experience of Kenyan horticulture. In P Little and M Watts. *Living Under Contract: contract farming and agrarian transformation in sub-Saharan Africa*. Madison, Wisconsin: University of Wisconsin Press.
- Kirsten J and K Sartorius (2002). Linking agribusiness and small-scale farmers in developing countries: is there a new role for contract farming? *Development Southern Africa*, 19(4), October 2002.
- Kirsten J, K Sartorius, I Kamwendo, M Madola and M Likulunga (2005). Policy issues for exploiting contract farming as a tool for empowering smallholder farmers in southern Africa: A case study of South Africa, Zambia and Malawi. *FANRPAN Policy Brief Series 04/05*. August 2005.
- Minot N (1986). Contract farming and its effect on small farmers in less developed countries. Working paper 31. Michigan State University, East Lansing, Michigan.
- NEPAD (2006). Contract farming offers fresh hope for Africa's declining agriculture. *East Africa Policy Brief No. 2*. Sida, World Agroforestry Centre, NEPAD Secretariat Agriculture Unit, Midrand, South Africa.
- Njiwa D (2008). Contracting firms in cotton in Malawi and their concentration. Personal communication. 5 March 2008.
- Sautier D, H Vermeulen, M Fok and E Biénabe (2006). Case studies of agri-processing and contract agriculture in Africa. *Rimisp-Latin American Center for Rural Development*. Preparation paper for the World Development Report 2008. Agriculture for Development.
- Simmons P (2003). Overview of smallholder contract farming in developing countries. *Food and Agricultural Organization Working Paper, ESA/FAO WP#01-2003*. Rome.
- Tschirley D, C Poulton and P Labaste eds (2008). *Comparative Analysis of Organization and Performance of African Cotton Sectors: learning from experience of cotton sector reform in Africa*. Agriculture and Rural Development Series. Forthcoming. Washington DC: World Bank.
- Vermeulen H, J Kirsten and K Sartorius (2006). Engagement with farmers from agro-processing companies in South Africa. Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa.
- Warning M and N Key (2000). The social performance and distributional impact of contract farming: the Arachide de Bouche program in Senegal. University of Puget Sound: Department of Economics Working Paper 00-3, Department of Economics, University of Puget Sound, Tacoma, Washington.
- Warning M and W Soo Hoo (2000). The impact of contract farming on income distribution: theory and evidence. Paper prepared for presentation at the Western Economics Association International Annual Meeting, 30 June 2000.
- Zola AM (2007). Contract farming for exports in ACMECS: lessons and policy implications. Presented at investment, trade, and transport facilitation in ACMECS, Bangkok, Thailand. 13 March 2007.

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network that provides analysis, data, and tools to promote evidence-based decision making, improve awareness of the role of agriculture for development in Africa, fill knowledge gaps, promote dialogue and facilitate the benchmarking and review processes associated with the AU/NEPAD's Comprehensive Africa Agriculture Development Program (CAADP) and other regional agricultural development initiatives in Africa.

The goal of the ReSAKSS Issue Briefs is to provide timely access to preliminary research and data analysis results that relate directly to strengthening ongoing discussions and critical commentaries on the future direction of African agriculture and rural development. The Issue Briefs undergo a standard peer review process involving at least one reviewer from within the ReSAKSS network of partners and at least one external reviewer.

Send comments and feedback to:

Sub-Regional Coordinator

Regional Strategic Analysis and Knowledge Support System for Southern Africa (ReSAKSS-SA)

Private Bag X813
 Silvertown 0127
 Pretoria, South Africa
 Telephone: +27 (0)12 845 9100
 Facsimile: +27 (0)12 845 9110
 E-mail: resakss-sa@cgiar.org
www.sa.resakss.org