Support Capacity for Enhanced Market Access and Knowledge Management (SCAPEMA)

Inventory of Smallholder Contract Farming Practices in Zimbabwe

December 2009

SNV

Connecting People's Capacities

Research report by M. Dawes, R. Murota, R. Jera, C. Masara and P. Sola for SNV, 2009 ©

Preface

Zimbabwe finds itself in a severe economic crisis. The agricultural sector and related activities accounted for over 60% of GDP but has plummeted to just a trickle. Agriculture formed an important base for the agro-processing and manufacturing industries, which in 2008, were operating at less then 20% of their capacity. With the introduction of the multi-currency regime in 2009 this has improved somewhat.

Tobacco and horticulture sectors are examples of Zimbabwe's failure in agricultural production. Tobacco "the golden leaf", was the county's main export product, with 650 million USD/year of export earnings, accounting for around 40 percent of its foreign currency earnings. Some 700,000 people were dependent on the industry for their living. Production of tobacco plunged from a record level of 267 million kg in 2000 to a 73 million kg in 2007. In the 90s the country's horticultural export sector was growing with 30%, and brought in 350 million USD/year and severely threatened Kenya's position as Africa's prime exporter to the EU. But it has dropped to 19 million USD/year, many companies went out of business since 2000.

However, there is also the success story of smallholder cotton farming that has become a mainstay of the country's agricultural economy, earning foreign exchange to the tune of 150 million USD annually. Zimbabwe has as many as 200-400,000 cotton cultivators, most of them smallholder farmers. Zimbabwean cotton was of high quality and productivity.

Smallholder agricultural recovery will need to address issues like access to (guaranteed) markets, agricultural advise and access to inputs. Contract Farming seems as a promising option and has been practiced for quite some time in Zimbabwe. With a diminished commercial farming production base, the smallholders have become very important for many agroprocessing companies. However there are many pitfalls for companies in dealing with smallholders and vice versa. Smallholders and companies have to learn how to deal with each other. This document identifies lessons and best practices with respect to Contract Farming in Zimbabwe.

Contract farming needs to be accompanied with a sound policy of supporting measures, like possibility of contract enforcement, but also benefits such as tax breaks for companies who contract smallholders and kick-start subsidies financed by Donors for contract farming extension support.

With this publication we hope to generate and disseminate knowledge useful for those involved in the smallholder agricultural sector. Zimbabwe's experiences in contract farming are also useful for other countries in Sub-Saharan Africa. Raising agricultural productivity in Africa and involving the smallholder farmers in that process is one of the key priorities, as emphasised in the World Development Report 2008 of the World Bank. Contract Farming is one of the pathways to get there.

Rik Overmars
Portfolio Coordinator
SNV Zimbabwe

Contents

List of Acronyms

AGRIBANK	Agricultural Bank of Zimbabwe
AgriSeeds	Agricultural Seeds and Services
ARDA	Agricultural and Rural Development Authority
AGRITEX	Department of Agricultural, Technical and Extension Services
Cargill	Cargill Cotton
CBZ	Commercial Bank of Zimbabwe
CGA	Cotton Ginners Association
CMB	Cotton Marketing Board
Cottco	The Cotton Company of Zimbabwe
CTE	Commodity Trading Enterprise
Delta	Delta Corporation
DOI	Department of Irrigation
ESAP	Economic Structural Adjustment Programme
EPZ	Export processing zone
FAO	Food and Agricultural Organisation
FAVCO	Fruit and Vegetable Cooperative
FTLRP	Fast Track Land Reform Programme
GMB	Grain Marketing Board
IFAD	International Fund for Agriculture Development
KST	Khula Sizwe Trust
MOA	Ministry of Agriculture
MTGT	Musengezi Tobacco Grower's Trust
NACGMB	National Association of Cotton Ginners Merchants and Buyers
NEPAD	New Partnership for Africa's Development
NCC	National Cotton Council
Ostrindo	PT Royal Ostrindo
RBZ	Reserve Bank of Zimbabwe
SAFIRE	Southern Alliance for Indigenous Resources
Selby's	Selby Enterprises
SNV	Netherlands Development Organisation
TIMB	Tobacco Industry and Marketing Board
TZI	Trans-Zambezi Industries
UP	Union Project
ZABG	Zimbabwe Allied Banking Group
ZESA	Zimbabwe Electricity Supply Authority
ZITC	Zimbabwe Irrigation Technology Centre
ZLT	Zimbabwe Leaf Tobacco
ZNA	Zimbabwe National Army
ZTA	Zimbabwe Tobacco Association

Summary

Of the many types of market linkage, contract farming has been recognised by Zimbabwean and African leaders as a system that has the potential to increase productivity and reduce rural poverty. Contract farming can potentially provide farmers with many benefits that extend far beyond the provision of markets including access to input loans and credit, provision of extension and technical advice, appropriate technology and management systems. These benefits are particularly relevant for Zimbabwe's smallholder farmers who, until recently, were experiencing unprecedented economic hardship due to economic decline and hyperinflation. Agricultural inputs continue to be of limited availability on the open market and there is a diminished capacity of public sector agencies to support smallholder farmers.

This report was submitted to SNV Zimbabwe in December 2007, revised in 2009, and documents the experiences of twenty-five companies contracting smallholder farmers in Zimbabwe to produce cotton, tobacco, paprika, sugar cane, vegetables, sorghum and various seed and legume crops in a hyperinflationary environment. The only company contracting farmers to produce livestock processes ostriches for their meat and leather. The report presents information on organisation of contracted farmers, quota specification, extension service delivery, supply of logistical and input support, calculation of producer prices and requirements for input loan repayments.

Generally, companies utilizing the same product were found to use similar contract methodology. Contract arrangements are classified into one of four models on the basis of the contracted product, the use of the product by the company and company resources and management availed to the farmer. Many of the companies that were operating under a low input and management model ('informal model') may benefit from a higher management or 'directed' approach to contract farming. The 'multipartite' model was being used successfully by two companies who were working with supporting institutions to assist their contracted farmers.

Many factors contribute to the mediocre results reported by most companies engaging smallholder farmers. Low yields and poor quality were identified by companies as reasons for reduced viability of contract agreements. Low productivity was found to occur because of inadequate farmer resources, poor management, poor timeliness of operations and over-reliance on input credit. Contracts can also fail because of default from one or both of the partners. Ways in which farmers were found to default included extra-contractual marketing, domestic consumption, input diversion, negligence and loan default. Side-marketing was singled out as the main mode of farmer default – the reasons for side-marketing are identified and suggestions are made on how this practice might be minimised. Companies default due to late- or non-supply of inputs, failure to collect produce and late payment. If corrective measures are not taken, default can sour relationships and have serious repercussions in future agreements.

The report is concluded by listing the factors and 'best practices' that companies may want to consider before and after contracting smallholder farmers at a particular site. Adoption of some of the recommendations should strengthen ties between the two contracting parties. One of the main recommendations is that companies consider investing in a directed farming approach because most productivity and default related issues can be managed. It is hoped that the adoption of some of these recommendations will improve the success of contract farming in Zimbabwe for the benefit of both farmers and companies.

1. Introduction

This investigation on contract farming in Zimbabwe was jointly commissioned by SNV (Netherlands Development Organisation) and IFAD (International Fund for Agriculture Development) under a regional programme known as 'Strengthening Support Capacity for Enhanced Market Access and Knowledge Management' (SCAPEMA). The overall goal of the programme is to reduce rural poverty in Eastern and Southern Africa and the purpose of the programme is to increase returns to the rural poor from more equitable and efficient linkages with markets.

A record contribution of 66% was made by smallholder farmers in the 1996 marketing season in which Zimbabwe produced 2.045 million tonnes of maize. During this year the smallholder farming sector achieved average yields of 1,459 kg/ha. This achievement was made against a backdrop of favourable weather and a government input support programme (Agricultural Recovery Programme). The productivity of the smallholder farming sector has declined over recent years and the average maize yield for this sector was only 130 kg/ha in the 2007/08 growing season. This trend was not restricted to maize – there was deteriorating productivity in almost every other agricultural sector. The reasons for these dramatic reductions in just over 12 years can be attributed to a rapidly deteriorating macro-economic environment, unfavourable government policies, and a poorly implemented land reform programme.

Zimbabwe's economy was in decline since before 2000 and the years preceding 2009 were characterised by hyperinflation. Hyperinflation, foreign currency shortages, spiralling black-market foreign currency exchange rates and shortages of bank notes combined to make even the simplest of transactions very difficult.

The Zimbabwe government's land reform programme commenced in 2000 and resulted in the dismantling of the economically important large-scale commercial farming industry. National productivity decreased to a fraction of what it was at the turn of the century which has had a debilitating effect on the nation's economy. The service industry that once supported the large-scale farming sector has been seriously compromised resulting in hardships for smallholder farmers who also relied on these services.

Government policies that had an adverse effect on productivity included a single-channel maize marketing system and price controls on all commodities. The Grain Marketing Board (GMB) was given the mandate to be the sole trader in maize and wheat in 2001. Unattractive producer prices resulted in farmers having little incentive to produce maize in excess of their subsistence requirements. In an attempt to rein in spiralling hyperinflation the government instituted price controls on all commodities in June 2007. Companies were forced to sell their goods at a loss and widespread shortages of all commodities became commonplace.

This general decline resulted in farmers facing challenges at almost every step in preparations, production and marketing. It became almost impossible for smallholders to source finance to purchase their inputs. Inputs became very scarce in a shrinking formal marketplace and were diverted to black markets where they were sold for prices that dwarfed official gazetted prices. Farmers also found it difficult in the hyperinflationary environment to calculate whether they might make a positive return on their farming investments. Poor working conditions for government employees resulted in losses of qualified staff in general; in particular the Department of Agricultural, Technical and Extension Services (AGRITEX) was no longer able to provide farmers in many areas with quality extension services. Officers were also restricted in mobility due to lack of vehicles. The nation's electricity supply authority (ZESA) no longer provided a reliable service, resulting in lower productivity at smallholder irrigation schemes.

Farmers with surplus produce faced challenges in accessing market information and delivering the produce to markets due to deteriorating infrastructure. Few private transporters were willing to risk travelling to remote communal areas due to high fuel costs and poor roads; farmers had no choice but to participate in unprofitable local sales to institutions, small businesses, and traders at the farm gate. Farmers with access to transport would often take produce to urban markets where higher prices are paid for produce. However, these transactions are often unpopular because of the amount of time the

farmer needs to spend away from farming operations and the difficult conditions that have to be endured at the markets.

Smallholder productivity in Zimbabwe is generally low. It should be noted that the national average yield achieved in 1996 was still significantly less than the yield potential of local maize cultivars. Farmers do not generally use high standards of management and the communal farming system is often characterised by poor timing, low standards and wasted resources.

Zimbabwean industry was once characterised by one of the most vibrant agro-processing sectors in Africa. One of the consequences of the land reform programme was the severing of traditional supply lines for companies involved in agro-business. At the time of the investigation these companies were operating at a fraction of their potential capacity and some companies with access to scarce foreign currency were importing commodities that were once locally produced. Persistent shortages of produce provided smallholder farmers with an important opportunity. Many companies were having to rethink their strategies for securing raw materials and showed a new interest in the smallholder farming sector.

Contract farming arrangements between companies and smallholder farmers can be advantageous to both partners because they reduce the risk of transactions at the informal marketplace – farmers without secured markets face the risk of selling produce at a loss due to market oversupply whilst companies without guaranteed supply may not be able to keep their factories running. Farmers may also benefit from embedded services supplied by the company including access to input loans and credit, provision of extension and technical advice, use of appropriate technology and company management systems. Contract farming has been identified as a system capable of stimulating agricultural production in Africa, at one stage being given a central role in the New Partnership for Africa's Development (NEPAD) strategy to revive the continent's agriculture. The Zimbabwean Government expressed support for contract farming (Anonymous, 2007) for the same reasons. The World Bank in its 2008 World Development Report mentions Contract Farming as one of the options for improving input & output markets, as well as raising agricultural productivity (World Bank, 2007).

Many Zimbabwean companies contract smallholder farmers. The main objectives of this study were to

- Investigate and describe the contract methodology used by companies contracting smallholder farmers;
- Highlight 'best practices' and 'lessons learnt';
- Make recommendations to improve contracting systems for the benefit of both smallholder farmers and companies.

It is hoped that the knowledge generated by this study will assist companies and farmers in improving their contracting systems and ultimately result in improved farmer livelihoods and food security and national economic growth.

2. Contract farming actors

In the context of this report, contract farming is defined as an agreement reached between a company and farmers for the supply of agricultural products to the company. In Zimbabwe, the frequency of contract farming between commercial companies and smallholder farmers is related to the crop being grown. In 2006/07 the nation's cotton crop was almost entirely produced by about 200,000 smallholder farmers, almost all of whom were contracted. Conversely, smallholder farmers used to produce only a fraction of the national tobacco crop which is one of the country's most important export crops, however lately this percentage is rapidly increasing. Companies that were interviewed during the course of the field work are presented in Table 1. The list is organised by crop type because companies within the same industry were often found to use similar contract farming methodology.

2.1. Contract Farming Companies

Many of the companies listed in Table 1 started contracting during or after the early 1990's. Prior to this date, the marketing of many agricultural products was regulated by the State through a number of statutory Marketing Boards. In 1992 the Zimbabwe government embarked on the World Bank's Economic Structural Adjustment Programme (ESAP) which encouraged the deregulation of agricultural marketing. This period saw the commencement of liberalisation programmes for the main agricultural products including grain, coffee, dairy products, cotton, beef and pork which increased opportunities for companies to become involved in contract farming.

Table 1: Companies and their smallholder contract partners

Product type	Company name	Primary company business	First year of contract farming	Number of contracted farmers (2006/07)	National contracted area in 2006/07 (ha)
Cotton	Cargill	Ginning & lint export	1996	70,000	90,000
	Cottco	Ginning & lint export	1992	77,000	180,000
Cotton Seed	Quton	Seed sales	1999	6,500	25,800
Legume crops	GMB	Wholesaling	1931	1,700	15,000
	Olivine	Canning	1990	Abandoned	Not applicable
	Reapers	Wholesale	1997	1,000	400-500
Ostriches and chickens	Ostrindo	Poultry processing	1997	322	Not applicable
Paprika	Cairns Spices	Oleoresin extraction	1996	5,000	6,000-7,000
	Capsicum	Pod export	1998	800	2,000
	CTE	Pod export	1997	Not available	Not available
	Hy-veld	Oleoresin extraction	1992	1,000	200
Seed crops	AgriSeeds	Seed sales	1991	3,000	1,500
	ARDA Seeds	Seed sales	2003	700	520
	SeedCo	Seed sales	1997	150	75
Sorghum	Delta	Brewing	1989	4,450	7,000
Sugar cane	Mkwasine	Sugar manufacture	1981	191	1,910
Tobacco	Northern Tobacco	Processing and export	2004	900	1,000-1,200
	Tribac	Processing and export	2005	150	193
	ZLT	Processing and export	2004	473	790
Vegetables and/or fruit	Cairns	Canning	1997	<2,000	1,095
	Favco	Wholesaling	1980	Not available	Not available
	Honeywood	Canning	2003	257	60
	Wholesale Fruiterers	Wholesaling		10	20
	Selby Enterprises	Processing and export	1994	50	20
	TZI	Processing and export	2006	250	60

2.1.1. Cotton

Cotton has been grown under contract by smallholder growers for longer than any other crop and the industry contracts more communal farmers than all other industries combined. Prior to 1992 the Cotton Marketing Board (CMB) controlled and coordinated the cotton industry from primary purchase and delivery of seed at the farm gate to sales of lint. The CMB's statutory monopoly in purchasing, ginning, marketing and export of cotton was removed in the 1993/94 growing season when it was replaced by a new company called The Cotton Company of Zimbabwe (Cottco).

Cargill (a US-based multinational) entered the market shortly after liberalisation. In the 1998/99 season Cottco and Cargill had 67 and 21% of the market share, respectively. For many years these were the only players; however this changed from the early 2000's and by 2006/07 there were over 20 marketing companies. Most of the newer companies were small and accounted for a very small proportion of the crop. In 2009 new legislation has been put in place obliging companies to provide and pool resources for input provision to contracted farmers in central depots. This forced smaller companies out of contracting options but also reduced side marketing.

Quton is a wholly owned subsidiary of SeedCo which contracts farmers to grow cotton seed. Quton's grower base changed significantly after the commencement of the Fast Track Land Reform Programme (FTLRP) in 2000. Prior to this time the company mostly contracted large-scale commercial farmers; however, more recently its grower base has almost been entirely comprised of smallholder farmers.

2.1.2. Legume crops

Three companies contracting smallholder farmers to grow legume crops were interviewed. The Grain Marketing Board is a parastatal organisation that has been in operation since 1931. Although the company purchased a wide range of agricultural produce from smallholder farmers, it only used formal contract agreements for soybeans, groundnuts and sugar beans.

Olivine Industries consider themselves to be pioneers in contracting the smallholder farming sector. The company has worked with farmers at many different irrigation schemes over a 16 year period in the production of dry beans. Soybeans were introduced into dry-land communal farming areas in Hurungwe, Mt. Darwin and Hwedza in about 1997. However, the company ceased smallholder contracting in 2006 because low crop returns resulted in unviable logistical support.

2.1.3. Reapers

Reapers is predominantly interested in purchasing groundnuts for resale to the agro-processing sector. The company contracted about 1,000 farmers in Makoni and Mutoko.

2.1.4. Ostrindo

Ostrindo was found to be unique for a number of reasons. Firstly, it was the only company interviewed that contracts farmers to produce livestock. Ostriches and chickens are well suited to production by smallholder farmers and the company had made significant progress with this sector since the late 1990's. Secondly, the company worked closely with Khula Sizwe Trust (KST), a local non-governmental organisation, which assisted in farmer training and capacity building. Finally, Ostrindo was the only company interviewed in the Matabeleland provinces.

2.1.5. Paprika

Paprika is an important smallholder crop grown under contract by smallholder farmers for companies that export the extracted oleoresins or whole pods. Although Hy-veld Seed Company had the most contracting experience of the paprika companies interviewed, Cairns Spices contracted the greatest number of farmers. Paprika companies were found to prefer contracting cooperatives at irrigation schemes and were unable to supply information with any accuracy on the number of growers or contracted area.

2.1.6. Seed crops

SeedCo, AgriSeeds and ARDA Seeds contracted farmers to produce legume and grain crops for certified seed production. Seed companies preferred to contract smallholder farmers to grow 'peasant' crops such as cowpeas, bambara nuts, millet and sorghum because these crops were not popular with large-scale farmers. Historically, SeedCo had used smallholder farmers to produce these crops, however low yields

in more recent years had resulted in the company reducing its exposure to this sector. AgriSeeds contracted dry-land farmers and farmers at irrigation schemes to grow cowpeas and sorghum, and sugar beans, respectively.

2.1.7. Sugar cane

The setup at Mkwasine was found to be unique because it was the only estate to be interviewed. Smallholder farmers at 'Chipiwa' resettlement produced sugar cane which was transported by rail to mills where it was processed into sugar and a number of by-products. For many years this scheme had been considered to be a model resettlement project however, the FTLRP reduced the viability of the core estate and the programme was in danger of collapsing.

2.1.8. Tobacco

Tobacco is the most important of Zimbabwe's agricultural export commodities. Processing companies purchase tobacco from farmers at auctions and prepare it for export. Contract farming between processing companies and farmers is a more recent development. There had been a moderate increase in the number of contracted smallholder farmers since the mid-2000's and this sector produced a fairly insignificant proportion of the national crop. The commercial growers association, the Zimbabwe Tobacco Association (ZTA), played an important role in linking groups of smallholder farmers to commercial companies. Of these companies, only Tribac was still using ZTA to provide management and logistical support to contracted farmers. Northern Tobacco and Zimbabwe Leaf Tobacco had graduated and were operating their schemes independently of the ZTA.

2.1.9. Vegetable crops

The vegetable sector once played an important role in the country's economy. Apart from the important informal sector, there were over thirty companies involved in retailing, wholesaling and processing. Nearly twenty of these companies exported produce to international destinations (Dawes, 2007). Cairns Foods was mainly involved in the canning of peas and baked beans, and the manufacture of tomato sauce. The company contracted farmers at irrigation schemes throughout Manicaland. Honeywood also contracted farmers in Manicaland to grow tomatoes which were processed into canned 'whole peeled tomatoes' and tomato pulp. Selby Enterprises had been contracting smallholder growers at an irrigation scheme scheme in Mazowe District to produce baby corn since 1994 however the number of farmers contracted had dwindled over the years. TZI were the former owners of Kondozi, a horticultural export processing zone (EPZ) that operated a very successful smallholder outgrower scheme. After the 2004 government seizure of this enterprise a new smallholder outgrower scheme was started at Cashel Valley for the production of gooseberries, mange tout, butternut and fine beans. Wholesale Fruiterers and FAVCO represent two of the Harare-based vegetable wholesalers.

2.2. Supporting institutions

There were numerous institutions identified that provided support to smallholder farmers in Zimbabwe and are classified as public, civil and non-governmental organisations.

2.2.1. Public institutions

At the time of the investigation, companies wanting to contract farmers to produce certain crops were required to sign a Memorandum of Understanding (MOU) with various departments within the Ministry of Agriculture (MoA). The MOU usually specified that contracting companies would provide farmers with extension services, farming inputs including seed, chemicals, tillage, harvesting, curing and marketing resources to a specified value. The agreement also addressed pricing, grower selection, contract documents and security of land tenure for the currency of the scheme.

The AGRITEX structure is designed to provide a national network of extension support for smallholder farmers. Each District has a post for a District Area Extension Officer who is supported by field staff at the ward level. Permanent officers reside at many of the larger irrigation schemes. AGRITEX officers were found to provide assistance to smallholder contracting companies at many locations. An example of this cooperation was the extension support and input distribution services rendered to TZI's contracted farmers at Cashel Valley. The effectiveness of AGRITEX in supporting contract farming was limited by

- The fact that officers had no power to ensure that farmers heed good extension advice;
- Zimbabwe's economic crisis. Poor employment conditions had resulted low morale and motivation of officers and subsequent losses of experienced staff. The extension service was also handicapped by scarcity of reliable transport.

Responsibilities of the Department of Irrigation (DOI) include overseeing the overall planning, design, construction, sustainable operation, maintenance and management of irrigation schemes. Clientele includes farmers at smallholder irrigation schemes throughout Zimbabwe. DOI operates the Zimbabwe Irrigation Technology Centre (ZITC) and is responsible for irrigation research, training and equipment testing. In 2006 the Centre started an irrigation competition for small-holder irrigation schemes around the country which considered many different criteria including scheme management, water management, repairs and maintenance, cropping programme, record keeping, marketing strategy. However, this competition was discontinued due to lack of funding.

It is important to liaise with local government authorities before embarking on contract negotiations with farmers. Local government includes District Administrators, Rural District Councils and Ward Councillors. Traditional leadership like to be aware of the activities taking place in their communities and village headmen should also be consulted.

The National Cotton Council (NCC) was established by the Ministry of Lands and Agriculture shortly after liberalisation of the cotton industry. The main objective of the NCC was to provide a forum for discussion among stakeholders in the cotton sector and to act as an advisory body to the Ministry of Agriculture. All major stakeholders, i.e. producers (represented mainly by the Zimbabwe Farmers' Union), buying and ginning companies (represented by the Cotton Ginners Association), spinners, oil expressers, research institutions and AGRITEX, were invited to participate at frequent meetings. An Arbitration Committee (within the NCC) was entitled to enforce agreements established among the stakeholders in the NCC and penalise non-compliant companies (Larsen, 2001). The NCC was mandated to keep a database of all contracted farmers throughout Zimbabwe which assisted in the reduction of farmer malpractice including 'double contracting'. The system also allowed for the identification of credit defaulters.

The Tobacco Industries and Marketing Board (TIMB) is a regulatory and advisory statutory body which controls and regulates the marketing of tobacco in Zimbabwe. It has many functions including the registration of all tobacco growers. At the time of the study, companies wishing to contract farmers for tobacco production were required to sign separate agreements with both the MoA and the TIMB. For their part, farmers were required to sell their crop to the company.

2.2.2. Civil institutions

The National Association of Cotton Ginners Merchants and Buyers (NACGMB) was established in 2006 with the broad objective of 'promoting production of cotton and its products for the creation of wealth for farmers, processing companies and the nation'. The name of the association was subsequently changed to Cotton Ginners Association (CGA) in 2007. One of the main reasons that the CGA was formed was to enable the industry to monitor the field operations of individual company members to ensure that farmer sales were made to the input financing company. The association also acted as a watchdog to ensure fair trade practices and adherence to quality standards by member companies. Malpractices such as side-marketing and non-observance of pesticide and grading regulations had had detrimental effects on the cotton industry and the association sought to address these problems through engaging both industry and growers.

ZTA started supporting the smallholder sector in about 1995 when it was still largely representing the interests of the commercial farming sector. Assistance to smallholder farmers took various forms over the years at the different sites and included tillage, input support and technical advice. ZTA's smallholder membership increased in number from about 300 in 1995 to 2,000 in 2000 with sites in Guruve, Shamva, Marondera and Karoi/Tengwe. Of the 18,000-odd smallholder tobacco growers registered in 2006/07, about 4,500 were ZTA members. The FTLRF and subsequent decimation of the commercial farming grower base from 2000 resulted in cutbacks and the ZTA was unable to continue supporting its smallholder members. In 2005 Chidziva Tobacco Processors asked the ZTA to assist them in developing a smallholder outgrower programme. The ZTA's membership records enabled the identification of competent growers in different areas of the country and a successful scheme was established. Other tobacco companies followed suit including Northern Tobacco (2005), Zimbabwe Leaf Tobacco (2005) and Tribac (2006). ZTA administered the Chidziva and Tribak sites, details of which are recorded elsewhere in this report. Services provided to the processing companies included farmer selection, extension

support and input distribution. Northern Tobacco and Zimbabwe Leaf Tobacco (ZLT) subsequently decided to operate their schemes independently of the ZTA.

2.2.3. Non-governmental institutions

The Musengezi Tobacco Grower's Trust was established in 2005 to assist smallholder tobacco growers in the Musengezi Resettlement Area in Chegutu District (Mashonaland Central Province). Although the Trust did not work with a contract partner, it used methods that would be beneficial to commercial companies. Attention to detail was made in farmer selection, project management and monitoring. Smallholder tobacco farmers were assisted in a support programme that provided inputs and with a heavy emphasis on extension. During the growing season farmers were required to meet minimum production targets before they received input support for the next crop phase. At the end of the season farmers were assessed and reselected for the following season's programme if they had met minimum performance levels.

Khula Sizwe Trust (KST) was formed in Bulawayo in 2001 as a rural development organisation with a mandate of equipping farmers with the necessary capacity to become engaged in contract farming agreements with companies. Since its formation KST had worked primarily with smallholder ostrich and chicken farmers contracted to its private sector partner Royal Ostrindo. Services provided by KST included farmer mobilization and selection, routine site inspections, technical, business and organizational skills training, mentoring and monitoring. The successful programme assisted farmers in achieving greater efficiency than their commercial counterparts.

In 2004 the Food and Agricultural Organisation (FAO) started what was later to become known as the Union Project, a programme designed to increase productivity (and therefore food security and incomes) of farmers in Zimbabwe's communal areas, funded by the EU. The Union Project board comprises FAO and Zimbabwe's three farmers unions; namely the Zimbabwe Farmer's Union (ZFU) representing the interests of smallholder growers; the Commercial Farmer's Union (CFU) representing large scale commercial farmers; and the Zimbabwe Commercial Farmers Union (ZCFU) representing commercial and smallholder members. The programme supports farmers through an all-inclusive package of input and extension support with a major emphasis on the latter. Farmers producing surpluses need markets and an important component of the programme is to link productive farmers to companies in mutually beneficial and sustainable partnerships. The programme worked with eight private sector partners in the 2007/08 season contracting smallholder farmers to produce a wide range of crops including cotton, paprika, cowpeas, sugar beans, and sorghum.

2.3. Financial institutions

In an effort to increase flagging agricultural productivity the Reserve Bank of Zimbabwe (RBZ) subsidized farmers through cheap agricultural loans. The Agricultural Sector Productivity Enhancement Facility (ASPEF) was the primary source of agricultural funding in Zimbabwe and was distributed through commercial banks to farmers at a concessional interest rate of 25% (at a time when annual inflation was 7,982%). The commercial bank distributing the loan was responsible for ensuring repayment to the central bank. However, commercial banks did not consider smallholder farmers to be 'bankable' thereby excluding them as direct beneficiaries of ASPEF funding. Some banks would finance groups of farmers (associations) with ASPEF funding although such arrangements were uncommon.

The main way in which smallholder farmers could benefit through ASPEF funding was indirectly through contract farming arrangements. Banks were willing to lend ASPEF money to companies involved in contract farming if the funds were used to support smallholder farmers.

A source of funding that is exclusive to smallholder farmers was the government's Public Sector Investment Programme (PSIP) funding. Funded by the tax payer, these funds were distributed through AGRIBANK (formerly the Agricultural Finance Corporation). The bank had an extensive network of branches and offices throughout the country which enabled it to reach deep into the smallholder farming areas. PSIP funds were guaranteed by the government because of the risky nature of smallholder agriculture. The funds were designed to provide smallholder farmers with working capital for food production to reduce poverty alleviation and increase food security. Preference was given to farmers who organized themselves into groups – a stumbling point for many farmers who often do not like joint liability. Importantly, no collateral was required. The farmers needed a letter of support from AGRITEX

who confirmed the landholding and that the applicant(s) were capable. A credit history was also important and evidence of movement of proceeds from crop sales into farmer accounts would assist in loan applications. The bank tried to reduce risk of default by limiting loan sizes to small amounts. Government funding of PSIP was restricted – AGRIBANK was awarded $960 billion out of a requested $3 trillion for the 2007/08 summer grain crop.

In summary, no funding was found to be available for individual smallholder farmers. Farmer groups were more likely to access funding, particularly if they had a good track record. However, PSI funding was very scarce. The best chance that farmers had to source input support was through contract farming agreements, whereby the company accessed a subsidized ASPEF loan through the commercial banking sector.

3. Farmer organisation and contract specifications

Table 2 on the next page summarises methods and specifications used by companies contracting smallholder farmers.

3.1. Organisation of farmers

Most companies worked with groups of farmers that were either organised by the company or were pre-existing. Cotton companies organised farmers using pyramidal structures. Self-selecting groups of up to 20 farmers elected a lead farmer for representation. Lead farmers combined to form a lead farmer committee which elected an 'executive chairman' (Cargill) or 'area representative' (Cottco) who dealt directly with the company agronomist.

Grower groupings played a less significant role in the tobacco industry. Neither Northern Tobacco nor ZLT required that farmers should be organised into groups. Instead, the companies dealt directly with individual farmers through their agronomists. Tribac contracted tobacco farmers with management and extension support from the ZTA who had existing membership support structures in most tobacco growing areas. Councillors elected by growers were responsible for overseeing the ZTA schemes, reported directly to the agronomists and submitted a weekly report to the ZTA president.

Most farmers at irrigation schemes received organisational training from AGRITEX when their schemes were commissioned and are typically governed by a committee comprising a chairman, vice-chairman, treasurer, secretary and other committee members. Many schemes had also benefited from NGO training programmes. For example, farmers at Mutambara B irrigation scheme have been trained by SAFIRE to adopt structures similar to those described in the cotton industry. However, the SAFIRE model also promotes leaders responsible for business, crop agronomy and record keeping. Kula Sizwe Trust (KST) assisted farmers in forming ostrich outgrower groups comprising about 25 farmers for Royal Ostrindo. A chairman elected by the group then represented the interests of farmers to both KST and Ostrindo.

Most companies did not require that farmer groups had constitutions although some agreed that constitutions might assist in loan and crop recovery. The exceptions were Cairns Foods and Cairns Spices who insisted that groups had constitutions before being admitted onto the programme.

3.2. Contract signatory

Contracts were normally signed with group representatives at irrigation schemes and with individual farmers at dry-land sites (Table 2).

Box 1
Changing from group to individual contracts

SeedCo contracted smallholder farmers to produce a number of seed crops including cowpeas. They reported on plans to change their smallholder contracting methodology in the 2007/08 season because their group method was not working – produce from a single bad farmer was reducing the price paid to all the farmers. By contracting individuals it was hoped to increase accountability and improve traceability.

When group contracts were signed a farmer representative usually guaranteed input loan repayment and minimum quota deliveries by group members. Thus, the representative assumed responsibility for the performance of growers because the company had no contact with individual farmers. Conversely, individual contracts placed the responsibility for productivity directly with the individual farmer.

Table 2: Contracting specifications

Crop type	Company name	Farmer organisation[1]	Signatory[2]	Duration[3]	Quota system[4]	Grading requirements[5]	Delivery[6]	Pricing formula[7]	Payment method[8]	Payment time[9]
Cotton	Cargill	1	1	1	1, 2, 3	4	1	1, 2, 3	1, 4	1
	Cottco	1	1	1	1, 2, 3	1	1	1, 2, 3	1	1
Cotton Seed	Quton	1	1	1	1, 2, 3	4	1	5	1	1
Legume crops	GMB	2, 3	1	1	1, 2	1	1	1, 2, 4	1, 2, 3	1
	Olivine	2	2	1	1	2	1		3	2
	Reapers	1	1	1	1, 2	1	1			
Ostriches and chickens	Ostrindo	1	1	1	1, 3	1	1	2	3	2
Paprika	Cairns Spices	1	2	1	1, 2	3	1	3	1	1
	Capsicum	2	2, 3	1	1, 2, 3	3	1	3	2	2
	CTE	2	3	N/A	1	1	1	2	1	1
	Hy-veld	1, 2	2	1	1, 3	3, 5	1	2	1, 2, 4	1, 2
Seed crops	AgriSeeds	1	2, 3	1	1, 2, 3	2	1	2	1	1
	ARDA Seeds	1	2	1	1, 2	2	1	2, 5	1	1
	SeedCo	1	2	1	1, 2, 3	2, 5	1	5	3	2
Sorghum	Delta	1			1, 2, 3	2, 5	1	1, 2	3	2
Sugar cane	Mkwasine	1	1	2	2	5	1	1, 3	2, 3	2
Tobacco	Northern Tobacco	3	1	1	1, 2, 3	4	1	6	2, 3	1, 2
	Tribac	1	1	1	1, 3	4	1	6	2, 3	1, 2
	ZLT	3	1	2	1, 2, 3	4	1	6	2, 3	1, 2
Vegetables and/or fruit	Cairns	2	2	1	1, 2	3	1	1	3	2
	Favco	2, 3	3	N/A	3	3	2	2		
	Honeywood	2	2	1	1, 2	3	1	1, 2	1	2
	Wholesale Fruiterers	2		1	3	3		2	2, 3	2
	Selby Enterprises	2	3	N/A	1, 2, 3	3	1	1, 3	5	2
	TZI	1	3	N/A	1, 2	3	1	2		2

[1] Many companies organised farmers into group structures (1). Others used existing structures (2). Some companies worked with individuals (3)
[2] Contracts might be signed by individual farmers (1) or a representative of the group (2). Some companies did not sign contracts (3)
[3] Contracts might be short seasonal (1) or longer term (2)
[4] Quota calculations could be based on the amount of seed or number of chicks availed to the farmer (1). Other methods included a mutually agreed planted area (2) or a farmer commitment of a minimum expected performance (3)
[5] Some companies did not require that the contracted produce was graded (1) whist others only required that seed should be cleaned (2). Many horticultural companies had their own in-house grading criteria for the process or market (3). For some crops there were standard industry grades (4). Some companies required that the crop met with minimum criteria determined in their laboratories before grades were allocated and/or payment was made (5).
[6] Expenses incurred in transporting produce to the company premises were paid by the company (1) or the farmer (2).
[7] Pricing formulas were often based on production costs (1), prevailing market prices (2), international commodity price (3) or the import parity price (4). Seed companies would often give farmers a fixed premium on the prevailing market price for the particular grade (5). Tobacco farmers sold their produce at the auction floors (6)
[8] Farmers were usually paid in cash (1), bank transfer (2) or cheque (3). Some companies paid farmers for the crop with an equivalent value of inputs (4). Smallholder farmers selling produce for export were permitted to be paid in foreign currency (5)
[9] Farmers were paid when the product was transferred to the company (1) or some time later (2)

Some companies did not sign contracts. Olivine Industries abandoned its group contracting system after many years of disappointing results. According to the company, a lack of respect for contractual obligations was manifested as a prevalent widespread smallholder farmer default. This was not an isolated viewpoint.

AgriSeeds did not always sign contracts with smallholder farmers because they believed that mutual trust played a more significant role than the signing of contract documents. In a recent seed contracting scheme the company designed a simple 2 page contract.

Selby Enterprises had been contracting farmers at Negomo Irrigation Scheme for many years and believed that annual contracts were no longer necessary.

3.3. Contract specifications

3.3.1. Contract duration

All but two of the companies signed seasonal contracts. Mkwasine Estate signed a sugarcane 'Planter's Agreement' when farmers were first resettled in 1981. These farmers signed requisitions for services (e.g. land preparation), inputs and cane transportation as required. ZLT also signed once off contracts with its farmers. Inputs were advanced after the farmer had signed an annual production schedule.

3.3.2. Specifying the contract quota

Whether a farmer was contracted in a group or as an individual he was responsible for producing a minimum crop yield of a certain quality for the company. This ensured that the company could budget on receiving sufficient raw materials for its operations. There were three main ways in which companies determined the minimum quotas that farmers should produce:

- Seed distribution. Some companies simply handed out seed to farmers and asked them to market the crop through them on the basis of 'first refusal';
- Planted area: Most companies specified the area that the grower should plant;
- Minimum expected yield (kg/ha): Many companies specified a minimum yield that the farmers should achieve.

Many companies specified both the planted area and the minimum yield that the farmer was required to achieve. Vegetable wholesale companies (e.g. Wholesale Fruiterers and FAVCO) simply gave planting programmes to farmers and guaranteed them a market.

3.3.3. Grading requirements and quality specifications

Requirements for grading varied between companies and were different for each type of crop. Most companies contracting farmers to grow legume crops required minimal preparation. For example, Reapers did not require grading to be done at all whilst AgriSeeds only required simple seed cleaning operations. In addition to seed cleaning, Delta and SeedCo required that the seed should pass germination tests at the company laboratory before being recommended for payment.

Sugar cane quality is determined by the sucrose content of the cane. Samples were analysed in the laboratory to determine the price that farmers should receive for their produce.

Farmers producing paprika were required to grade their produce into three or four different categories depending on the contracting company. Companies that did not own equipment to perform the standard American Spice Trade Association (ASTA) test usually purchased the paprika by estimating the ASTA content. Farmers were usually paid a discounted price because of the risk that the company assumed in purchasing non-tested produce. The ASTA test is slow and even when companies had testing facilities, farmers often preferred to accept the discounted price rather than being delayed whilst waiting for the test results to become known.

Grading standards in the vegetable sector varied according to the market to which the produce was destined.

- Produce grown for canning did not have to be of the same high quality as produce supplied to the fresh market;
- Produce destined for export markets is often required to meet with stringent quality specifications from the market and legislated safety standards in the country where it was to be consumed. Quality specifications might include colour, length and width, maturity, degree of hydration, and acceptable blemishing. Legislated safety specifications are concerned with the application of crop chemicals and resulting chemical residues on produce. Produce destined for European markets had to comply with

the comprehensive EUREPGAP/GLOBALGAP code of good agricultural practice which was concerned with crop production and management techniques, processing and handling systems, worker welfare and environmental issues. Compliance was the basic entry level into European markets and many retailers had their own, more stringent, codes of practice. Companies contracting these farmers were required to prove that they were capable of meeting with these standards through audits and certification schemes. For example, Selby Enterprises contracted smallholder growers to produce baby corn for export to European markets. The farmer's management committee were responsible for ensuring that the produce met with GLOBALGAP standards. These farmers also had facilities to grade their produce at the irrigation scheme. On arrival at the Selby pack-house samples of the produce were taken and re-graded for verification.

The cotton and tobacco industries had their own industry standards. At the time of the investigation, the cotton industry was in turmoil (see Box 2) and industry standards of grading were no longer being observed. Up until the late 1990's, quality had determined the price that the cotton farmer would receive. All companies used the same National Cotton Council (NCC) grading system based on four grades and farmers were expected to grade their crops by considering soil and insect stain, trash content, weak and immature fibre and colour. Before making cash payments to farmers, the company would grade the cotton in standard grading rooms. With the introduction of instant cash payments in the early 2000's, cotton became 'bush' graded at collection points. After initial pre-grading and weighing of delivered seed cotton the farmer would receive a part-payment. A top-up payment followed once the cotton had been graded at a company facility.

Box 2
Deteriorating quality standards in the cotton industry

The legislation governing the grading of cotton was repealed in the early 1990's when the industry was liberalised. From this time until about 2000, the major marketing companies (Cottco and Cargill) agreed that that farmers should continue to grade their cotton. This situation changed from the early 2000's when a host of new buyers entered the market, many of whom did not require farmers to grade their cotton. Grading of cotton is labour intensive and farmers opted to sell their cotton to buyers without stringent grading requirements. Cotton grading largely fell by the wayside and most companies discontinued paying a premium for quality. In the survey Cargill indicated that they still required farmers to grade; conversely, Cottco reported that they had started purchasing ungraded cotton. A result of the grading crisis was a deterioration in the quality of Zimbabwean cotton.

Tobacco farmers were required to grade their tobacco according to standards set by the Tobacco Industries and Marketing Board (TIMB). Tobacco grading is a complex procedure and takes into consideration the position on the plant where the leaf was removed, colour, texture and presence of undesirable characteristics. Generally grading was done well by smallholder farmers, especially in areas where there had been a long culture of tobacco growing.

3.3.4. Logistic support

For most farmers, lack of reliable transport was the main factor preventing participation in higher value markets. Therefore, contract farming would only be attractive to farmers if companies agreed to deliver inputs and collect the produce. All companies involved in smallholder contracts reported that they collected produce from farmers (Table 2). In the cotton industry farmers would often deliver cotton bales to central collection points. In the vegetable industry farm gate collection was the norm. Tobacco companies gave cash advances to farmers to enable them to pay transporters to deliver tobacco bales to the auction. Mkwasine transported sugar cane as a free service to the sugar mills some 60 km distant.

3.3.5. Pricing formula

For contract farming to be sustainable it is important that both company and farmer make a profit. Companies used a number of different criteria when determining the amount to be paid to the farmer.

- Production costs – by considering production costs the company could determine a reasonable profit margin that should be paid to the grower
- Prevailing market prices – market prices often played an important part in pricing formulas

Box 3
Unstable cotton prices during the 2007 marketing season

The 2007 marketing season was characterised by hyperinflation. At the beginning of the marketing season members of the CGA agreed to pay all farmers the same price for their cotton. This was done in order to ensure that companies that did not finance farmers (with inputs) would not lure contracted farmers with higher prices. This agreement did not last long and market forces soon prevailed. During the marketing season companies reported that farmers were holding onto their cotton as a hedge against inflation. Then, just before the end of the season, government instituted price controls (June 2007) that halved the amount that companies were required to pay farmers for their cotton.

During interviews farmers at a number of sites stated that they were unhappy about the large price fluctuations experienced during the season. Farmers selling very early or very late in the season were penalised with unviable low prices.

- International commodity prices – prices for cotton, paprika, sugar and horticultural export crops were determined by the prices that companies received from their international markets
- Import parity price – GMB and Delta considered the cost of importing the commodity when determining the price paid for some contracted crops
- Premium on prevailing market price – it is more difficult to produce seed crops and farmers were typically rewarded a 20% premium on the commodity price
- Tobacco auction floors – bid prices at Harare's three auction floors are determined by international prices and local supply and demand. Prices were quoted in United States dollars and farmers were paid in local currency at the official exchange rate. Each bale of tobacco on the open auction floor is sold by an auctioneer who bids to a group of tobacco buyers each representing different processing company. Tobacco grown with self-finance was auctioned at a different part of the building (the auction floor) to contract grown (company-financed) tobacco. Each tobacco company that contracted farmers had its own dedicated area to which farmers delivered their bales. The company would assign each bale the average price paid for the same grade during the previous day at the auction floor. A TIMB employee was present during this procedure to ensure that the bale was given a fair price. Farmers complained that the system works in the favour of the companies who purchased the crop at a discount of up to 20% compared to auction floor prices. Farmers also complained that they were being prejudiced by the exchange rate which was significantly overvaluing the Zimbabwe Dollar – therefore they were being paid less in real (USD) terms. The RBZ attempted to appease farmers by paying them a quality-based support price.

Pricing of produce became a great challenge under hyperinflationary conditions in Zimbabwe especially for companies without links to export markets. Price controls instituted by government in June 2007 created new difficulties for farmers and companies by distorting markets and viability for both farmers and contractors.

Note: Since the introduction of the multi-currency regime and liberalisation of currency in- and outflows of the country in early 2009, the situation has improved considerably and prices are much more stable and retain their value.

Box 4
Cargill Cotton gains considerable inroads into market share through favourable payment policy

One of the major competitive advantages that Cargill introduced in the mid 1990's was instant cash payments. Prior to this Cottco had implemented a system of cheque payments in which farmers received cheques between three and eight weeks after delivery. The new method of payment proved popular and Cargill obtained a sizeable market share in its first season of operation.

3.3.6. Method and time of payment

In order to secure the contracted crop it is important to pay the farmer in such a way that he could access the money quickly. This was especially true in the prevailing hyperinflationary environment in 2007. Farmers preferred cash payment when the crop was collected. This method of payment ensured that the farmer received the true value for his produce. Bank transfers had also become an acceptable method of payment and

more farmers were opening their own bank accounts. Some companies paid farmers several weeks after accepting the produce because of grading and administrative delays. When such delays were combined with cheque payments side-marketing became prevalent.

Farmers producing paprika for Hy-veld Seed Company had the option of being paid for their produce with an equivalent value of inputs (i.e. barter trade). Inputs were delivered to the site at a subsidised transport rate using the same trucks that would collect the produce. This method of payment helped farmers to combat inflation by converting their money into assets.

Box 5
Cargill's 'farmer voucher' system

When Cargill started operations in Zimbabwe it did not use an input credit system. Farmers were given a choice of being paid for their cotton in cash or as input vouchers redeemable prior to the following marketing season. This system had numerous merits

- Farmers could grow their crop using their own inputs and they were not indebted through the credit system;
- Inputs provided by Cargill were cheaper than those on the market because of bulk discounts and savings through bulk transportation.

Despite these advantages, the voucher system did not prove to be very popular. In 2003 Cargill started its own input credit scheme which grew to a value of USD 4,000,000 in the 2006/07 season. The company continued to operate the two systems alongside one another. In the hyperinflationary environment of 2007 the system had the added advantage of assisting farmers in avoid devaluation.

Note: Since 2009 new legislation is obliging contracting companies to provide an minimum input support to contracting farmers through pooled resources in warehouses overseen by the Cotton Ginners Association. Farmers are registered and receive a company and CGA registered voucher to collect their inputs (seeds & fertilizers). Upon delivering of cotton registered farmers can only sell to their contracted company. The effectiveness of this system in reducing side marketing will become known in 2010.

Farmers growing for Selby's were unique in that they received part of their payment in foreign currency. The scheme had a Foreign Currency Account which was credited when the company purchased baby corn. However, these farmers also paid for their inputs in foreign currency and these debits were settled before payments were made.

3.3.7. Extension support

One of the major potential advantages of contract farming is that farmers come into regular contact with company extension staff employed to look after the company's investments at the site. During the survey both companies and farmers were asked how often extension staff visited the site. Most companies believed that their staff visited sites at least once every two weeks however these claims were often not confirmed by farmers at the schemes (Table 3). Cotton, paprika and seed companies generally provided low levels of extension support, whilst the tobacco and vegetable sectors provided a moderate level of support.

Box 6

Extension support in the Union Project
The Union Project uses a 'directed farming' approach which places a heavy emphasis on extension support. Extension officers living at the sites advise and mentor groups of about 50 farmers. These resident officers report to agricultural consultants who each oversee production at about five sites (i.e. 250 farmers). Farmers receive full input support and are taught conservation farming techniques and good agricultural practices. The approach makes use of demonstration plots where farmers gather once a week for training.

Extension support in the Agriseeds Project
In its recent contract scheme Agriseeds provides intensive extension to 2200 farmers. Agricultural extensionists are overseeing activities of 100 farmers each, and 5 extensionists are supervised by an agronomist. Farmers are grouped in groups of 10 with a chosen lead farmer. The lead farmer is motivating peer learning, mutual farm visits and group performance. Agronomic skills for seed production, timely implementation of operations are important elements farmers have to master. In addition an independent

training organisation is providing farmers with business skills such as understanding of contracts, record keeping and cost/benefit calculations.

3.3.8. Production support

Another important advantage of contract farming for farmers is that companies often provide services. Such services might include land preparation, maintenance of an irrigation pump, input support (seed, fertilizers, crop chemicals and packaging materials) and cash advances. This support was normally extended to farmers as credit to be repaid when the crop was delivered.

The input support provided by companies ranged from minimal to full input support packages. The highest level of support was at Mkwasine where farmers had access to all services and inputs required to grow a high yielding cane crop. The level of support at the estate was unique among the companies in that it would even carry out soil testing and liming at the request of the farmer. The tobacco industry also supplied farmers with a high level of input support that included cash advances during times of peak labour requirement. Ostrindo supplied its outgrowers with all of the feed, vaccines and chemicals necessary to successfully rear the ostriches and chickens.

Generally the cotton and vegetable industries provided farmers with a supplementary level of input support. Some of the cotton companies recognised trustworthy and productive individual farmers who were supplied a greater level of support. For example, Cottco farmers were credit rated and better farmers received greater support.

In most cases, companies contracting farmers to grow legume crops, paprika, seed crops and sorghum provided little more than seed. The extension support offered by these companies was also low.

Companies providing full input support generally had more intensive extension services. Mkwasine and Ostrindo had extension workers permanently present at the site. Tobacco company agronomists were given responsibility for a relatively small number of farmers and were able to give growers individual treatment. On the contrary, when company input provision was low, companies tended to make smaller investments in extension staff.

The cotton industry might have been expected to place a greater investment in extension considering the very large investment that companies made in terms of input credit schemes. However, investment in extension was low with officer: farmer ratios varying from about 1:500 to in excess of 1:1,000.

Table 3: Input credit and extension support schemes

Crop type	Company name	Ext. Support[1]	Production support[2]	Level of production support[3]	Input delivery[4]	Repayment terms[5]	Credit facility[6]
Cotton	Cargill	Low	2, 3, 4, 5	1	1	5	
	Cottco	Low	2, 3, 4, 5	1, 2	1	5	
Cotton Seed	Quton	Low	2, 3, 4, 5	1	1	5	
Legume crops	GMB	Low	2, 3	1		3	
	Olivine	Low	2	1	1	6	
	Reapers	Nil	2, 3	1	1	3	
Ostriches	Ostrindo	High	7, 8, 9	2	1	4	
Paprika	Cairns Spices	Low	2	3	1		1
	Capsicum	Low	2, 5	3	1	7	
	CTE	Nil	2	3	1		
	Hy-veld	Low	2	3	1	4, 7	
Seed crops	AgriSeeds	Med	2, 5	3	1	6	
	ARDA Seeds	Low	2, 4	1	1	3	
	SeedCo	Low	2	1	1	7	
Sorghum	Delta	Low	2	3	1	3	
Sugar cane	Mkwasine	High	1, 2, 3, 4, 5	2	1	3	
Tobacco	Northern Tobacco	Med	2, 3, 4, 5, 6	2	1	3	
	Tribac	Med	1, 2, 3, 4, 5, 6	2	1	3	
	ZLT	Med	2, 3, 4, 5, 6	2	1	2	

Vegetables and/or fruit	Cairns	Low	2, 3, 4, 5	1	1	3	1
	Favco	Nil	Nil	4	N/A	N/A	
	Honeywood	Med	2, 3, 4	1	1		
	Selby Ent.	Med	2, 3, 4, 5	2	1	4	
	TZI	High	2, 3, 4, 5	2	1	1	
	Wholesale Fruiterers	Nil	Nil	4	N/A	N/A	

[1] Company extension support: could be described as low (one visit per month or less), med (visit every fortnight) or high (weekly visits or permanent extension presence)

[2] Production support availed to farmers by contracting companies might have included land preparation (1) and provision of seed (2), fertilizers (3), crop chemicals (4), packaging materials (5) and cash advances (6). Ostrindo supplied Ostrich outgrowers with chicks (7), feed (8) and vaccines and chemicals (9).

[3] Tillage services and seed supply were usually sufficient for the contracted area. Remaining production support could be designed to supplement the farmer's own resources (1) or to provide for most of the farmer's needs (2). Some companies did not provide any inputs other than seed (3) whilst others did not have an input credit scheme (4)

[4] All companies providing material input support delivered the inputs to a central location or to the homestead

[5] The companies interviewed used various methods to calculate input repayment. One company did not require repayment (1). Another charged cost with no interest (2). Others used a principal plus simple interest model (3). Some companies opted to charge farmers replacement cost at the time of delivery of produce (4). Some companies instructed farmers to repay loans with an equivalent amount of produce (5). Companies supplying seed would often direct farmers to replace the same amount of seed from their harvest (6) or forgo repayment if the farmer delivered the crop (7).

[6] Some companies arranged credit facilities through commercial banks for their farmers (1)

3.3.9. Input loan repayment terms

Loan repayment conditions offered by the company have a great influence on the sustainability of the revolving inputs programme and on relationships with the farmers. Under the hyperinflationary environment it was critical that companies were able to replace the inputs supplied to farmers in order to sustain their programmes. However, it was also important that farmers were advised on input cost calculations to avoid the common perception that companies were profiting from these programmes. The following repayment conditions were identified (see Table 3)

- Free inputs – TZI, with the support of donor funds, provided Cashel farmers with free inputs in the first year of the export vegetable production scheme. Farmers were only required to pay seed costs and a subsidised transport charge. Farmers were informed that, in subsequent years, they would be required to pay replacement costs for all inputs, transport costs (for ferrying produce to the Marondera pack-house) and related handling fees;
- Principal only – tobacco processing company ZLT provided farmers with their inputs at cost price payable at the end of the season;
- Principal plus simple interest – some companies received government subsidised agricultural (ASPEF) loans and charged farmers the subsidised interest rate. However, this low interest rate did not enable (under hyperinflationary conditions) companies to repurchase inputs in the following year;
- Replacement cost – when farmers were charged the replacement value of their inputs at time of harvest, it allowed companies to replace inputs for the following season's programme. The problem with this method was that it was not possible to provide farmers with pre-planting input prices;
- Repayment in produce – some companies instructed farmers to repay their input loans in an equivalent value of inputs (see Box 7);
- Repayment of seed loans – companies supplying seed to growers sometimes required repayment with an equivalent amount of harvested seed. Other companies supplied seed at no cost on the condition that the farmers sold a minimum quantity of produce to the company.

Box 7
The demise of the 'cotton kg' system of input loan repayment

The standard repayment method used by the cotton industry for much of the 2007 marketing season was based on input repayment in 'kg's of cotton'. At the beginning of the cotton season input prices were pegged to an equivalent value of cotton. For example, farmers were told that they should repay a 50 kg bag of compound fertilizer with 100 kg of harvested cotton. However, government price controls resulted in the official price of fertilizer being reduced to a fraction of its true value. Although fertilizer was unavailable at these low prices, farmers complained that they were being overcharged by companies. Government reacted by

temporarily outlawing the cotton-kg system and most cotton companies suffered massive losses – one company lost 60% of the value of its credit scheme.

3.3.10. Availing credit facilities to farmers

Cairns Spices arranged for farmers to receive loans through AGRIBANK with which to make their input purchases. However, farmers complained that late loan disbursement had impacted negatively on productivity.

4. Classification of farming models

In the previous chapter information was presented on the different methods used by companies to contract smallholder farmers. Generally, companies contracting farmers to produce the same product used similar contracting methodology. Eaton and Shepherd (2001) classify contract farming into five models depending on the product, the resources of the company and the required intensity of the relationship between the farmer and company.

4.1. Model descriptions

4.1.1. Centralised model

In this model the company is usually a centralized processor (or packer) that requires produce to feed through a processing procedure. Processing may vary in complexity from simple operations (cooling, grading, sorting and packaging operations) to sophisticated procedures (processing of tea, vegetable freezing and canning). Crops that fit into this model may include tree crops (e.g. coffee and tea), annual crops (e.g. vegetables, cotton, tobacco and sugar cane) or livestock products (poultry or dairy). Produce may be purchased from a large number of farmers.

As a result of the processing requirements these operations are usually vertically coordinated with stringent quota allocation and quality control. A directed farming approach is often used in these projects – directed farming occurs when smallholder farmers are managed or organised and requires a high level of management in the farmer's production. Company sponsorship varies from minimal input provision (e.g. seed) to the opposite extreme (land preparation, seedlings, fertilizers, agrochemicals etc.) where the company takes control of most production aspects.

4.1.2. Nucleus estate model

This is a variation of the centralised model in which the company is represented locally through a central estate or plantation. This model was first developed by the Commonwealth Development Corporation (CDC) which established pilot estates before contracting outgrowers some years later to feed into the central processing plant. The central estate is usually used to guarantee throughput for the processing plant. This type of contract also involves directed farming – since the core estate is usually in close proximity to the contracted farmers it often provides significant of material and management resources. The contracted farmers therefore benefit from the central estate's economies of scale. In many countries of the world this model is used with resettlement schemes.

4.1.3. Multipartite model

This multipartite model is used when more than one organisation collaborates in the farmer contract. Separate organisations may be responsible for credit provision, production, management, processing and/or marketing. Multipartite models can develop from the centralised or nucleus estate models.

4.1.4. Informal model

Small companies or individuals wanting to make simple, informal production contracts with farmers on a seasonal basis usually use this model. The model is therefore more common for short season crops such as fresh vegetables for wholesalers or supermarkets. The crops generally require a minimal amount of processing.

These contracts do not usually involve directed farming and financial investment is minimal because individual promoters do not have large financial resources. Material inputs are restricted to provision of seeds and basic fertilizers. Technical advice is restricted to grading and quality control and developers often rely on government support services such as extension.

4.1.5. Intermediary model

Companies that do not want direct contact with the farmers may choose to subcontract production to an intermediary party. There are no examples of this type of contract in the companies surveyed. In this type of setup there is a danger that the company may lose partial (e.g. prices paid to farmers) or entire control of production.

Table 4: Current and proposed classification of companies into contracting models

Product	Company name	Current Model	'Best fit' Model
Cotton	Cargill	Informal/centralised	Centralised
	Cottco	Informal/centralised	Centralised
Cotton Seed	Quton	Informal/centralised	Centralised
Legume crops	GMB	Informal	Centralised
	Olivine	Informal	Centralised
	Reapers	Informal	Centralised
Ostriches and chickens	Ostrindo	Multipartite	Multipartite
Paprika	Cairns Spices	Informal/centralised (Multipartite)	Centralised
	Capsicum	Informal	Centralised
	CTE	Informal	Centralised
	Hy-veld	Informal	Centralised
Seed crops	AgriSeeds	Informal	Centralised
	ARDA Seeds	Informal	Centralised
	SeedCo	Informal	Centralised
Sorghum	Delta	Informal	Centralised
Sugar cane	Mkwasine	Nucleus Estate	Nucleus Estate
Tobacco	Northern Tobacco	Informal/centralised	Centralised
	Tribac	Multipartite	Multipartite
	ZLT	Informal/centralised	Centralised
Vegetables and/or fruit	Cairns Foods	Informal/centralised (Multipartite)	Centralised
	Favco	Informal	Informal
	Honeywood	Informal/centralised	Centralised
	Wholesale Fruiterers	Informal	Informal
	Selby Enterprises	Informal/centralised	Centralised
	TZI	Centralised	Centralised

[1] Centralised model is used when a processing company gives farmers production quotas and requires high quality standards. This model uses directed contract farming. The Nucleus Estate model is a variation of the Centralised model and is used when the company is an estate that is contracting satellite outgrowers. The multipartite model refers to contracts where more than one organisation is mandated to fill a certain function. The informal model describes companies who make low investments in the farmers, do not require quotas and have minimal quality standards

4.2. Recommended models for surveyed companies

In this section the above descriptions (developed by Eaton and Shepherd, 2001) are used to classify each company according to the model that they were currently using. In some cases the model being used was inappropriate and did not maximise returns to the company and/or farmer. In such cases recommendations are offered on the model that might prove to be a better fit (Table 4).

4.2.1. Centralised model

None of the companies listed in Table 4 receive sufficient produce to satisfy the demand of their operations. Many of these companies using the informal model would likely have had greater success if they had used the centralised model. The informal model is ideal for small companies or individuals with limited resources; companies that do not operate processing equipment and therefore don't require strict quotas or high quality specifications. However, many of the industries have considerable investments tied up in processing equipment.

TZI's export vegetable contract growing scheme at Cashel started in 2006 and the company had an intensive input and extension support programme involving its resident officers and AGRITEX staff. The company processed and exported the vegetables to South African and other international markets. The site was well managed and the company was one of the few examples of a company using directed farming under the centralised system.

Many companies were at this time using a hybrid of the centralised and informal models. Most of the tobacco, export vegetable and cotton companies in Table 4 are classified under a hybrid arrangement.

- Tobacco and export vegetable industries generally provided farmers with full input and moderate extension support;

- Cotton and local vegetable processing industries had supplementary input support programmes and relatively small extension services (see Table 3).

Where companies have significant investments tied up in processing equipment they should consider the centralised model.

Cotton is only internationally marketable once it has been processed into lint at a cotton gin. In 2007, over 20 marketing companies contracted in excess of 200,000 smallholder farmers. Most companies did not receive sufficient volumes of cotton to meet with their ginning capacity and low yields and deteriorating quality standards were a major industry concern. Companies generally used extensive extension support and farmers received variable input subsidies depending on the individual companies. In the preceding years, the marketing season had been characterised by rampant side-marketing which had increased the expense of input credit schemes and resulted in companies reviewing their input support programmes. The industry had been actively lobbying government for the introduction of a legislative framework to restore confidence and order to the industry. It was felt likely that greater investments would be made into smallholder contract farming if companies had more confidence in the system. Thus, although the centralised model would be optimal, it was unlikely that companies would increase investments until the relevant legislation was implemented.

In contrast to the cotton industry, the tobacco industry contracted less than 5,000 smallholder farmers in 2007. The tobacco companies interviewed gave their farmers full input credit and farmers had regular (but not intensive) access to extension support. Tobacco yields were lower than their commercial farming counterparts. One of the interviewed companies expressed doubt as to whether smallholder operations were sustainable and it was thought likely that this sector was being subsidized at this time. Once again, a greater commitment to directed farming would likely bear fruit.

Cairns and Honeywood had processing facilities that required continual produce throughput. Both companies provided farmers with supplementary input and limited extension support. Farmers produced low yields and side-marketing was a perennial problem. As in the case of the cotton industry, it was likely that the increased extension support characteristic of the centralised model would assist farmers in producing higher yields and would reduce the incidence of side-marketing.

Selby Enterprises exported vegetables and required higher quality standards than the local industry. The company provided farmers with full input support and the company agronomist was visiting the scheme fortnightly. Selby's relationship with Negomo farmers started in the mid 1990's and the company noted that productivity had declined over the years. The company philosophy was that, after so many years, the farmers should have the responsibility of managing their own production. However, declining productivity would indicate that a more intensive approach would benefit both company and farmers.

Seed companies required a quality product. Certified seed production must take place under well managed and monitored conditions to ensure genetic purity. Seed quality is also dependent on growing conditions and farmers should therefore have access to requisite inputs and advice. Side-harvesting describes the practice when farmers sell non-contracted produce to the company, usually in order to benefit from higher prices. This problem was a serious concern to the seed industry which jeopardised seed purity. It is only possible to prevent side-harvesting through a well managed and monitored programme. Seed companies would therefore have benefited by adopting a centralised approach.

Another industry that would likely have benefited from the centralised approach was the paprika industry. Paprika is a high value product that is exported to international markets requiring a quality product. The paprika marketing companies all cited low yields by smallholder farmers as being a major problem. This crop is also susceptible to side-marketing. Increased company management and extension support under the centralised system would likely have improved this situation.

Delta Corporation processed smallholder sorghum into traditional beer. Despite having developed a large grower base of over 4,000 farmers, the company still needed to import half of its sorghum requirements due to low farmer productivity. The company was using an informal model in which farmers were provided with seed loans and limited extension support. Both the company and its farmers would likely have benefited from using the centralised model.

4.2.2. Nucleus Estate Model

The only company interviewed that was using the Nucleus Estate Model was Mkwasine Sugar Estate situated in the Lowveld. Chipiwa resettlement scheme at Mkwasine sugar estate was resettled in the early 1980's. The Zimbabwe Government sold the land to a consortium comprising Triangle and Hippo Valley sugar estates on condition that 40% of the land was made available for resettlement purposes.

The company built significant infrastructure for the resettled farmers that included sewerage facilities, piped drinking water, a road network, medical and sports facilities, housing and schools (Eaton and Shepherd, 2001). Prior to 2007, the company had provided smallholder farmers with full extension and input support, however the level of material support was deteriorating because the core estate had diminished in area and become increasingly unviable due to the government's FTLRP. Irrigation water supply had also become a problem – the FTLRP was implemented at a time when the company was converting the irrigation system and many farmers were left stranded without water because the company could no longer afford the costs.

Another company operating under the Nucleus Estate model was Eastern Highlands Plantations Limited which was contracting about 1,000 smallholder farmers to produce tea and coffee for its processing facility.

4.2.3. Multipartite model

There were a number of examples of the multipartite model in which the contracting company was assisted by a third organisation. Khula Sizwe Trust provided training and capacity building support to Ostrindo's ostrich farmers. The Zimbabwe Tobacco Association provided Tribak farmers with logistic, management and extension support. The Union Project provided companies with a lower-risk entry point into directed contract farming through provision of subsidised extension and input support. The multipartite model was generally successful.

Cairns Foods and Cairns Spices used an informal multipartite model through their relationship with financial institutions. Loans were given to the farmers and repayment was guaranteed by the company.

4.2.4. Informal model

FAVCO and Wholesale Fruiterers are examples of companies that were correctly using the informal model. The two vegetable wholesalers were providing planting programmes to smallholder farmers who received no input and little extension support.

Table 5: Farmer productivity and agronomic practices[1]

Crop type	Company name	Main crop[2]	Potential yield[3] (kg/ha)	Average farmer yield[4] (kg/ha)	Farmer yield as a fraction of potential yield[5]	Site yield (kg/ha)	Reasons for yield difference[4]	Period of planting at site[5]	Soil testing	Liming
Cotton	Cargill	Cotton	2,000	700-800	38%	380-800	1, 6, 9, 12	3	Never	Never
	Cottco	Cotton	2,500	700	28%	500-2,000	1, 3	3	2006	Never
Cotton Seed	Quton	Cotton	2,000	500-900	35%		1, 3, 7			
Legume crops	GMB						3, 5, 9, 11			
	Olivine	Navy beans	2,000	500	25%	100-2,000	1, 2	3	Never	Never
	Reapers	Groundnuts	2,500	1,500	60%	400-1,500	1, 3, 5	3	2004	Never
Ostriches	Ostrindo	Ostriches					18, 19, 20			
Paprika	Cairns Spices	Paprika	2,500-3,000	300-900	20%	100-1,000	1, 4, 6	2	Never	Never
	Capsicum	Paprika	2,000 (D)	500-1,000 (D)	38%		1, 2, 4			
	CTE	Paprika	5,000	1,000	20%		1, 3, 4			
	Hy-veld	Paprika	1,000-2,000 (D) 3,000-6,000 (I)	600-800 (D) 1,000-3,000 (I)	35% 44%		4, 7, 8, 10			
Seed crops	AgriSeeds	Cowpeas	1,500	700	47%	102-700	1, 2, 13	3	1997?	Never
	ARDA Seeds						1, 5			
	SeedCo	Cow peas	1,000	300-500	40%		1,2, 6, 14			
Sorghum	Delta	Sorghum	3,000-4,000	1,000	29%	400-1,000		3	Never	Never
Sugar cane	Mkwasine	Sugar cane	115,000	85,000	74%	30,000-120,000	2	2	2007	2007
Tobacco	Northern Tobacco	Tobacco	2,300	1,000	43%		2, 7, 15			
	Tribac	Tobacco	2,400	1,600	67%		2, 15			
	ZLT	Tobacco	2,200	1,300	59%	1,000-1,600	2, 4, 16	1	2003	Never
Vegetables and/or fruit	Cairns	Hybrid tomatoes	75,000	28,000	37%	2,500-25,000	1, 2,5	1	2005	2006
	Favco	Butternut	30,000	25,000	83%		1, 3, 8			
	Honeywood	Tomatoes		35,000		25,000-50,000	1, 3, 17	3	Never	2002
	Selby Ent.	Baby corn	1,200	600	50%		2, 3			
	TZI	Mange Tout	4,000	3,000	75%		2, 10			
	Wholesale Fruiterers	Tomatoes					8			

[1] Information for columns labelled 'Potential yield', 'Average farmer yield' and 'Reasons for difference' was provided by companies. The remaining information was recorded during farmer interviews

[2] Navy beans are also known as Michigan Pea Beans

[3] Commercial companies were asked for potential crop yields under large-scale production. D=dry-land and I = Irrigated

[4] Commercial companies were asked for average crop yields from smallholder farmers

[5] When a range of crop yields was quoted the percentage calculation was done using an average

[6] According to companies reasons for poorer crop yields from smallholder farmers include insufficient application of inputs (1), poor management (2), inadequate pest and disease control (3), lack of irrigation (4), low rainfall (5), late planting (6), poor timing of operations (7), inadequate knowledge (8), poor cultivation (9), labour shortages (10), use of retained seed (11), low plant populations (12), poor soils (13), post-harvest losses (14), inadequate farming equipment and infrastructure (15), poor land preparation (16) and electricity cuts at irrigation schemes (17). Smallholder farmers for Ostrindo excel because of a sense of ownership and personal care (18), good bio-security (19) and small groups of birds (20)

[7] According to farmer information, sowing or planting was done over a period of 14 days (1), 28 days (2) or greater than a month (3)

5. Factors reducing the success of contract farming ventures

In 2007, after many years of low productivity, Olivine Industries decided to discontinue their smallholder contract farming scheme. It is important to analyse lessons learnt by the different actors in order to prevent the recurrence of such failures.

5.1. Productivity

Table 5 summarises productivity and agronomic information obtained during interviews with both companies and farmers and provides some insight into the practical challenges to successful contract implementation. About 60% of the companies interviewed estimated that smallholder farmers produce less than 50% of the yield of their large-scale commercial counterparts. Ostrich outgrowing was the only example of an industry where smallholders outperformed large-scale producers (see Box 8).

Farmers were producing less that 50% of the yield potential for cotton, navy beans, paprika, cowpeas, sorghum and tomatoes. Crops that were grown more successfully included baby corn, groundnuts, sugar cane, tobacco, butternut and mange tout. It should be noted that success or failure illustrated in the table does not necessarily reflect the suitability of the crop for smallholder production since the contracting methodology and model described in earlier chapters are also of great importance. As previously discussed, companies contracting farmers to grow the same crops often used similar contracting methodology and were therefore likely to experience the same problems and attain similar results.

Farmers at each of the sites were asked to estimate the lowest and highest yields produced by farmers in their grower groups. The information recorded in Table 5 shows that the company estimates were sometimes higher than actual productivity at the site. It should be noted that the yield values reflected the situation at a single site and were not necessarily a true representation of the company's entire smallholder production base. For example, the Cottco community in Mutoko is known to be one of the company's more productive sites.

Box 8
Ostrich rearing – a smallholder farmer success story

One of the secrets of Ostrindo's success was that individual smallholder farmers were raising small and isolated groups of poultry. In contrast, commercial operations reared large groups of birds with no individual attention. The birds thrived under individual attention given by smallholder producers and the small, isolated groups were found to restrict the spread of disease outbreaks. Smallholder production indicators such as mortality, feed conversion and growth rate were all superior to commercial systems and production costs were lowered by between 10-20%.

According to Khula Sizwe Trust (KST) other factors that contributed to the success of this venture included

- Product selection – Ostriches and chickens are easily counted. Ostriches are not easily side-marketed;
- The individual contracting system – allowing individual ownership and reward for excellence;
- Intensive extension – a resident company extension worker who mentored and monitored farmers;
- Training – before and throughout the contract period;
- Mediation – KST was the mediator between Ostrindo, farmers and local authorities.

Note: Due to stockfeed shortages in 2008 the scheme suffered considerably but is being rebuild

5.1.1. Reasons for low productivity

Companies were asked to list the main reasons for the relatively poor performance of smallholder producers. The extensive list of reasons given in Table 5 can be summarised under three main headings: resource limitations, poor agricultural management and lateness of operations.

Many companies that provided farmers with a supplementary level of input support (Table 3) believed that the key to improving yields was increased input availability. Conversely, companies that provided farmers with full input support believed that the cause was related to poor agricultural management and time-keeping.

5.1.1.1. Resource limitations

In addition to input support, companies cited low rainfall and lack of irrigation, labour shortage, poor soils, post-harvest losses, inadequate access to farming implements and infrastructure, poor land preparation and intermittent electricity supply as reasons for low yields.

Maximising yields are only possibly if crop growth is unchecked by water shortage. All the paprika companies stressed the importance of irrigation on maximising productivity. Companies sponsoring farmers at irrigation schemes cited the unreliability and unavailability of electricity as a major reason for low productivity. However even if water is continually available, failure to irrigate correctly can also be disastrous – one of underperforming sites was an irrigation scheme where navy beans were grown for Olivine Industries. Some of the farmers use drip irrigation at this scheme which is predominantly irrigated using hand-move sprinklers. Drip irrigation farmers were attempting to produce crops using the same irrigation schedule as their overhead counterparts, with poor results.

Shortage of agricultural labour was a nationwide problem for both commercial and smallholder farmers and was related to the economic instability in the country. Farmers at Mkwasine Sugar Estate complained about severe labour shortages. The traditional labour pool had dried up as people sought better livelihoods in Mozambique or in informal trading and mining operations. The tobacco companies were unique in that they provided farmers with funds to pay labour at certain times in the crop cycle.

Many of the soils in Zimbabwe's smallholder areas are mono-cropped and ploughed annually. These soils are low in organic matter and have low fertility. Significantly, none of the companies interviewed mentioned soil acidity as a reason for low productivity. Continued use of acidifying fertilizers (e.g. ammonium nitrate) has decreased soil pH to below optimal levels. Most crops grow well when the soil pH range is between 5.0 and 6.0. Soil fertility decreases progressively with increasing soil acidity and many nutrients (e.g. calcium, magnesium, phosphates) become unavailable for uptake by plants. In acid soils there is also a danger that aluminium and manganese will become available in toxic amounts. Microbial activity is suppressed by high levels of these toxic elements, reducing the yield potential of legume crops. Groundnuts require soils with higher pH values because they use large amounts of calcium. Farmers at most sites had never had their soils tested or limed.

Lack of tractors and farming implements can delay land preparation. Late planting has dramatic effects on crop yields. In many areas of Zimbabwe the optimal planting date for dry-land farmers is with the first summer rains which occur between mid and late-November. Potential crop yields diminish with continued delays after this date. Farmers at the sites were asked when the first and last farmer in the group planted his plot (Table 5). At most of the sites there was a delay in over a month between the first farmer planting and the last; such delays would undoubtedly have resulted in yield reduction.

Planting at the correct time is especially important for farmers contracted to grow horticultural produce. In order to ensure a constant supply of produce for processing, many horticultural companies provided farmers with planting programmes. When farmers missed their planting deadlines their crops were ready for harvest at a different time to their neighbours. This resulted in reduced deliveries to the company during the planned harvesting period. Since it was not viable for the company to collect a small amount of produce from a few farmers producing crops outside the scheduled period the defaulting farmers stood to lose their contract market.

Lack of appropriate storage facilities can result in post-harvest losses due to crop deterioration and theft. For example, once it has been cured, tobacco needs to be stored for up to six months before being sold at the auction. According to the ZTA, smallholder farmers experienced great losses during this period.

Box 9
Conservation farming empowers smallholder farmers by enabling them to plant on time

Conservation farming is an agricultural system aimed at improving soil organic matter content by

- Discontinuing destructive soil preparation techniques that invert the soil. Ploughing inverts the fertile top soil, exposing it to the atmosphere and organic matter is oxidised. Organic matter plays an important role in increasing soil structure, fertility and water retention.
- Encouraging practices that leave mulch on the soil surface. Mulch is important in protecting the soil from

excessive heating by the sun and raindrop impact. Rainfall on unprotected soil can result in significant erosion.

Conservation farming has another great advantage. Many smallholder farmers are unable to plant at the correct time because of a lack of draft power. Smallholder farmers who own cattle will often start ploughing after the first rains. However many communal farmers do not own draft power and have to wait until hired or borrowed cattle are available. Farmers using conservation farming do not plough. They mark out planting stations with hoes well before the rains and are ready to plant the moment the rains arrive.

5.1.1.2. Poor management

Low standards of agricultural management can significantly reduce yields. Management related issues that companies have found to be problematic include plant populations, disease control, cultivation and use of retained seed.

Achieving the correct plant population is the first step in obtaining the full yield potential of a crop. Many smallholder farmers did not use methods that ensured that the correct amount of seed was sown.

Poor pest and disease control can result from a number of reasons including lack of crop chemicals and spraying equipment or incorrect application procedures. The vast majority of farmers used knapsack sprayers incorrectly and the potential results included waste of costly crop chemicals, poor pest control, plant injury and high levels of chemical residues on the harvested crop.

When farmers do not cultivate their fields, subsequent weed growth results in competition for nutrients which seriously jeopardises yields.

Some companies cited use of retained seed as a yield reducing practice. However, this should not have been a major problem in contract farming because seed is usually supplied by the company.

5.1.1.3. Lateness of operations

The importance of planting date has already been mentioned. In many cases, the causes of late farming operations were related to the poor management factors mentioned above. For example, it is not only important to cultivate well but also to weed at the right time so that weeds do not get too big. Crops need to be sprayed with chemicals early at the right time in order that pest populations do not exceed critical levels. This requires regular scouting activities to determine insect and disease levels in the crop. There are also crop specific operations that must be done at the right time – for example in tobacco production de-suckering is an important operation which, if not done on time, will seriously reduce yields.

5.1.1.4. Over-reliance on input credit schemes

Over-reliance on input credit can result in farmers expecting the contracting company to cater for every eventuality. This can be dangerous, for example, in the event that a disease outbreak threatens the crop. Over-reliant farmers may wait for the contracting company to provide them with the chemicals rather than taking appropriate action themselves.

5.2. Contract default

During interviews, both farmers and companies were questioned on common forms of contract default.

5.2.1. Farmer default

5.2.1.1. Extra-contractual marketing

5.2.1.1.1. Side-marketing

Side-marketing describes the practice when a contracted farmer sells his produce to a third party in breach of his contractual agreement. It is a major problem in Zimbabwe – 60% of the companies that were interviewed stated that their contracted farmers had side-marketed harvested produce. Side-marketing results in reduced quota delivery to the company, decreased processing efficiency and increased production costs.

Both companies and farmers were asked to give reasons for side-marketing. The reasons given in Figure 1 are often interrelated. Both partners agreed that the main reason was related to price– farmers were tempted to sell outside the contract agreement when competitors offered more money than the contracting company. In cases where the difference was very significant farmers felt justified in their actions because they believed that

the company was profiteering. Capsicum, a paprika marketing company, encouraged farmers to notify them when competitors were offering higher prices so that they could renegotiate prices.

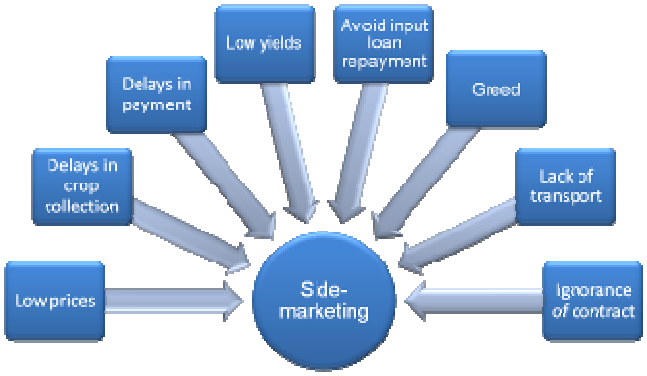

Figure 1. Reasons given by companies and farmers for side-marketing

Delays in collection of non-perishable crops often resulted in farmers selling to a third party. By harvest time many farmers had not had access to income for a long period. If the company did not collect the crop soon after harvest farmers were tempted to sell to middlemen who are commonplace during the marketing season. Side-marketing was more likely when the farmer had an urgent requirement for money.

A history of late payment resulted in side-marketing by farmers at Hama Mavhaire irrigation scheme. Olivine paid farmers by cheque after collecting the produce. Farmers anticipated long payment delays and made partial deliveries to company trucks sent to collect produce. The remainder of the crop was then sold locally or at the farm gate to assist cash flows until the arrival of company payments (see Box 10).

Low yields are a major motivation for side-marketing. Farmers with very low yields are unable to repay their input loans and when faced with the prospect of indebtedness they will often choose to sell the crop elsewhere. Low yields also result in farmers becoming dissatisfied with the contract price. Prices calculated to give farmers with higher yields a reasonable return, seem unreasonable to unproductive farmers. *It is in the company's best interests to do all that is possible to assist farmers to achieve high yields.*

Cotton companies reported that farmers wishing to avoid input loan repayments will often resort to side-marketing. Such farmers would sell their produce to a third party and claim crop failure. Another motivation for side-marketing is greed. By claiming crop failure and side-marketing the produce to better paying markets farmers could maximise their income.

Box 10
Side-marketing due to poor yields and payment delays

Missed navy bean quotas at irrigation schemes were the main reason that Olivine Industries discontinued contract farming with smallholder farmers in 2006/07. Although the primary reason for low yields was poor agricultural management, side-marketing probably exacerbated the situation. Farmers at Hama Mavhaire complained that Olivine was well known for delayed payments. They also complained that the company paid low prices. Some farmers at the scheme would not deliver all of their beans to company trucks sent to collect the produce. Beans would be sold in the local community to tide farmers over until the arrival of company cheques.

When horticultural farmers missed the company planting programme they harvested at a different time to their more organised neighbours. It is unviable for company trucks to travel long distances to collect small amounts of produce and these farmers would therefore sell their produce to alternative markets.

All of the companies interviewed expected their employees to explain contract agreements to farmers. However nearly 40% of farmers either said they did not understand the agreements, or clearly did not understand when asked about specific details. Whether the problem is that farmers genuinely do not

understand contract agreements, or else it is because they do not appreciate the repercussions of their actions, the solution will likely lay in training and enforcement through appropriate legislation.

Farmers were more likely to side-market when a history of discontent with the contracting company made them feel justified for their actions.

Table 6 lists some of the solutions for the specific causes of side-marketing listed in Figure 1. However there are many other factors that can reduce this malpractice including

- Empowering farmer communities with constitutions and by-laws which address contract default;
- Monitoring farmer agricultural performance closely to assist in the achievement of good yields and quality (i.e. directed farming). Close monitoring and record keeping of crop yields at individual plots;
- Contracting individuals to ensure liability and accountability;
- Rewarding individual excellence. This might be done through increased input support or increased producer prices when yields reach certain thresholds;
- Field days and competitions;
- Continual strengthening of relationships with the community by taking into consideration their needs. For example, when farmers told Capsicum that inputs were in short supply, the company agreed to barter with farmers and pay for produce with an equivalent value of inputs. Companies that invest in local communities were more likely to command the respect and support of the community.

5.2.1.1.2. Side-harvesting

This occurs when contracted farmers collude with neighbours and friends to sell non-contracted produce to the company in order to benefit from higher prices. This is a major problem in the seed industry where farmers are awarded a premium price compared to commodity prices. Side-harvesting compromises the genetic purity of the harvested seed.

Table 6: Side-marketing: Causes and solutions

Cause	Solution
Low prices	• Continual reassessment of pricing formulae to ensure that reasonably productive farmers receive payments at least equal to costs of production plus a small profit • Share the pricing formula with farmers • The company should be aware of local and farm-gate prices being offered to farmers during the season • Increase in yields will increase returns to farmers (see below)
Late crop collection	• Advance logistical planning to ensure harvest is collected on time • Good communication and coordination between farmers and the company
Late payment	• Advance planning to ensure funds are available at harvest time
Low yields	• Continual process of removing non productive farmers • Increased company extension support and consider resident extension officers • Increased monitoring and crop assessments • Increased company input scheme
Avoidance of loan repayments	• Ensure input pricing calculations are well understood • Blacklist farmers who are not amenable to debt rescheduling • Start industry database of contract defaulters
Uncoordinated planting programme	• Increase company extension and monitoring
Ignorance of contract	• Explain contract to farmers • Ensure that farmers have their own copies of the contract agreement • Contract individual farmers • Train farmers on sanctity of contracts

5.2.1.2. Domestic consumption

Farmers will often keep part of the contracted crop to eat at home or for planting in the following year. SeedCo reported that, during years of drought, cowpea deliveries were very low in Zaka because other crops had failed.

5.2.1.3. Input diversion

When companies supply inputs to farmers it is for the purpose of maximising yield and quality of the contracted crop. Input diversion occurs when these inputs are not applied to the contracted crop. Instead they may be sold or used on other crops. At one of the sites farmers reported that instances had occurred when neighbours had signed a contract with no intention of growing the contracted crop.

Input diversion can be minimised by increasing management and extension support. For example, the ZTA would only approve the next tranche of input distributions once farmer fields had been assessed. In some cases the input pack would be reduced to match the actual crop area.

Box 11
The Union Project approach to reducing input diversion

The programme encouraged group work for certain farming activities including input application. Groups of 10-15 farmers worked together in activities such as holing out, sowing/planting and fertilization. Each farmer was instructed to have his inputs ready at the edge of the field for group application. This self-monitoring approach helped reduce the amount of input diversion.

5.2.1.4. Negligence

Negligence can also occur because of illness, poor rains or labour shortage. Companies with good management and extension support might have backup plans to assist farmers if they are unable to manage crops due to illness or labour shortages.

5.2.1.5. Loan default

Loan default occurs when farmers are unable to repay their loans (e.g. due to poor yields) or because they are unwilling to repay their loans (e.g. due to greed). Most companies appreciated that farmers will have bad seasons and had systems that enabled genuine farmers to carry over debts into the next season.

Many of the solutions suggested for reducing side-marketing are also applicable to decreasing loan default, for example, seasonal grower assessment and selection and training and empowerment of grower groups (peer pressure). Loan default may also be reduced if companies make

- Timely deductions
  Input deductions should be made early in the marketing season. Most companies were found to deduct the value of inputs from the first produce delivered. Other companies encouraged early loan repayments by using low interest incentives.
- Timely contract agreements
  Some companies issued contracts for the forthcoming season at the time of harvest. Therefore, only farmers who had repaid their loans were signed on for the coming season.

5.2.1.6. Repayment of input loans in cash

Some cotton farmers tried to take advantage of the hyperinflationary environment prevalent during the 2007 marketing season by offering companies cash instead or cotton. These farmers hoped to pay companies the prices prevailing at the time they received their inputs and sell the cotton elsewhere for higher prices.

5.2.1.7. Yield fraud

Companies reported that there had been incidences when farmers had added large stones or excessive moisture to packaged produce.

Box 12
Footing the bill for loan default

There will always be a percentage of farmers who default and the risk that companies assume in providing input finance needs to be factored into the model. This may be done by reducing commodity prices or increasing input prices.

In the 2006/07 season members of the NACGMB (now the Cotton Ginners' Association, CGA) agreed on a national cotton price which would be based on international lint prices and the costs of the input support

scheme. However, this industry agreement quickly collapsed because some of the companies that were not financing production did not uphold the agreement and paid farmers higher prices.

When companies build the cost of their contract farming programmes into the cost of the inputs farmer training is necessary to ensure that farmers understand why their inputs are expensive.

Fear of default prevents many companies from providing a full set of input support. Low risk – low return (Table 3) contracts signed with many farmers spreads the risk and ensures that some product makes its way back to the company. Therefore it is really the farmers who pay the price for loan default.

5.2.1.8. Default by Mkwasine farmers

The methods of default at Mkwasine were unique. Farmers were reported to have defaulted in three main ways. Firstly, farmers did not conform to the company agronomic practices as stipulated in the contract agreement. When farmers ignored good agricultural practices they also affected their neighbours. For example, if diseased plants were not removed as required by the contract, it could spread into neighbouring plots. Secondly, some farmers abused the sugar cane quota system. Cane is harvested from April to November; however, peak sucrose content occurs between the middle and end of July. Farmers were given equitable harvesting schedules to take this into consideration; however, some farmers abused the schedule by burning their fields prematurely. Finally, farmers were known to use more water than their allocation.

Before moving on to company default it is necessary to pause and reflect on the many reasons why crop deliveries to contracting companies were reduced. It is important to note that *most of these factors can be addressed when companies implement directed farming programmes under the centralised model*.

5.2.2. Company default

5.2.2.1. Late or non-supply of inputs

The provision of inputs is one of the main reasons why contract farming is attractive to farmers. However, farmers reported that inputs would often arrive late or not at all. When inputs are delivered late farmers miss the opportunity to plant at the correct time and often obtain lower yields which compromise potential income and the ability to repay input loans.

In the years preceding 2007, most inputs were in short supply and even the best organised companies had had challenges in securing inputs. Failure to source and deliver inputs can make the difference between success and failure of a farmer's contracted crop.

Box 13
Unreliable collection of produce

Many farmers growing perishable horticultural produce at irrigation schemes in the eastern districts of Zimbabwe tell stories of how they suffered loss because contracting companies arrived late to collect produce. Sometimes the companies did not arrive at all.

In order to ensure top quality, horticultural produce should be systematically harvested at the correct stage of ripeness. Farmers related how they would harvest the crop in expectation of a scheduled company collection. When company transport was late, they would be forced to sit by the roadside watching the quality of the harvested produce deteriorate. Produce graded at the distant factory would be allocated poor grades. Thus, it is usually the farmer who pays for poor company logistical services.

5.2.2.2. Failure to collect produce

Another reason why farmers like contract farming is because the company collects the produce at the farm gate. When farmers rely on the company to collect the produce it is important that the transport service is done to a prearranged schedule. This is especially so for perishable produce which needs to be harvested and processed within a short period of time (See Box 13).

5.2.2.3. Late payment

Companies often default by delaying payments to farmers. These delays were reported to occur due to

- Administrative delays in processing payments;

- Product analysis to ensure conformity to company quality criteria;
- Shortages of bank notes throughout the hyperinflationary period made it difficult for companies to meet with their contractual obligations.

Under normal economic conditions delays might only result in inconvenience to farmers. However, in a hyperinflationary environment delays can be very costly to the farmer. Either way, late payment can be a major source of discontent.

Chapter 6 includes recommendations of factors that companies need to consider in order to plan and implement their contracts successfully.

6. Recommendations

Having considered the ways in which companies were contracting smallholder farmers, the discussion is concluded with suggestions on the factors that should be considered before embarking on smallholder contract farming schemes. In addition it is hoped that the recommendations will assist companies currently involved in contract agreements to review their methods. If adopted, the recommendations could improve crop returns to the companies and have the desired SCAPEMA goal of 'increasing returns to the rural poor from more equitable and efficient linkages with markets'.

The guidelines have been compiled using best practices identified during the course of this study with reference to Eaton and Shepherd (2001).

6.1. Preliminary investigations

Appendix 1 is a checklist of factors that should be considered before engaging a community in contract farming.

After completing a thorough market analysis for both primary and secondary markets the company should look at the profitability of the venture. In order for the project to be sustainable in the long term it should be *profitable for both the company and the farmers*. A sensitivity analysis will ensure that the company takes periods of low national or international prices into consideration. Some crops are less susceptible to side-marketing – if possible a crop should be selected that is not highly marketable. Industry organisations can give invaluable assistance in farmer selection. For example, the NCC keeps a database of cotton growers that enables the identification of productive and defaulting farmers.

A political assessment must also be done. The Zimbabwean government voiced its full support for contract farming at an industry workshop focusing on contract farming (Anonymous, 2007). However, companies need to consider political stability. Local political support is very important in Zimbabwe – there is a danger of contract farming operations being derailed when politically connected farmers become discontented with the company. Another possible scenario is political authorities wanting to gain popularity at the expense of the contract agreement.

At the national level, there should be a legal framework that supports contract farming. Such a framework does not currently exist in Zimbabwe. The cotton industry has been lobbying government to introduce legislation to assist them with the rampant side-marketing and deteriorating cotton quality that threatens to derail the industry. It is also important to assess the level of support from local government and traditional leadership.

The site assessment is of critical importance because overlooking any single factor could jeopardise the success of the programme. The general climate, soil and topography should be suitable for the attainment of commercially viable yields. For example, frost can decimate yields of some crops. The pH at most smallholder sites is low and the company should either consider a liming programme or the use of crops tolerant to acidic soil conditions. If the crop is to be irrigated there should be sufficient water to meet with crop water demands during the period of peak requirements. Water quality should not be overlooked. The site should be assessed for any threats by disease, insects or animals – the past non-observance of crop rotations may have led to high nematode populations. Large populations of rodents or insect species pose a potential threat to the prospective crop. Another aspect that should be considered is the locality of farmers' plots. Many companies prefer farmers' plots to be concentrated over a small geographical area for ease of management.

The creation of new groups or the assessment of existing group structures should also be carefully considered because successful group structures can make or break the project. The local leadership should be assessed to identify whether they have the respect and full support of the community. This can be done by interviewing potential farmers, AGRITEX officers and other local authorities. Strong and transparent leadership will generally result in strong groups.

The site assessment will also include an evaluation of utilities and communications. The distance of the site from the company offices will influence the viability of the programme. Most companies interviewed deliver inputs and collect produce from the farm gate and easy access to the scheme is therefore very important. The survey identified one company that failed to consider the condition of the access road to an irrigation scheme.

According to the farmers the company informed them at harvest time that they should transport their produce to the main road. This cost was borne by farmers and resulted in discontent. The irrigation scheme should be in good working order and there should be reliable electricity supply. Electricity supplies are unreliable in Zimbabwe and companies often prefer to identify gravity fed irrigation systems. Access to, and reliability of communication systems is important because management need to liaise regularly with extension staff. In Zimbabwe, the mobile phone network can often fill the gap when fixed lines are unavailable. If processing or packaging is to be done at the site it is important that power and clean water are available. It is important that cropped areas are protected from animals and theft of fencing. Storage facilities for company equipment or the harvested crop are important factors to consider. The ZTA considered post-harvest losses to be very significant for smallholder farmers because, for the most part, they lack storage space.

Housing should also be available for the company's extension officer. It is desirable that medical facilities are available for access by company employees and farmers. Local schools are often able to provide support in remote rural locations.

The conditions under which the farmer is permitted to farm on the land should be investigated. Whilst farmers at communal or old-resettled sites have security of land tenure, the situation on A1 and A2 resettlement schemes is still potentially unstable. Companies need to be cautious in contracting farmers on land where security of tenure is problematic. The company also needs to assess whether there is sufficient land available for the commercial viability of the project.

Many companies provide farmers with significant input loan support. These companies must ensure that farmers have inputs well in advance of the season.

Social factors should also be carefully appraised before making a commitment to contract farming. The starting point would be assessing whether the farmers have been involved in contract farming in the past and investigating the outcomes by consulting both company and farmers. Many Zimbabwean smallholder farmers are unfamiliar with the agricultural practices required to produce high yielding crops. Agricultural practices that are not encouraged by commercial companies are often commonplace, e.g. inter-row cropping. Farmers need to be consulted to determine whether they would be willing to change from their current production techniques.

Investigations should also consider any local customs that might influence the growing of the prospective crop. For example, members of the Apostolic Faith do not work on Fridays. Local communities often observe certain traditions which can disrupt productivity, for example, the farmers interviewed in Zhombe communal land will not work their lands for two days after a hail storm for fear of bad luck. Funerals can also disrupt agricultural production because deaths can result in entire communities ceasing farming activities for periods of up to 2 days. Such disruptions can have serious effects when they occur at critical times in the cropping cycle, e.g. during the harvesting of vegetable crops. Companies may consider training farmer groups to cover for individuals if such events occur.

If the community has had past experience in contracting the company needs to assess whether their proposed contracting methods are accepted by the farmers. For example, many companies prefer to use individual contract agreements because of traceability and individual accountability. Community acceptance of individual agreements would need to be appraised.

Farmers at irrigation schemes are required to work as a community in order to pay electricity and water accounts, and maintain the irrigation system. An assessment should be made of past failures and the current capacity of the community to ensure the smooth operation of the irrigation system.

An assessment of past and potential yields is important to identify whether the contract will be profitable. If the community was contracted in the past, yield records may be available from these companies.

The potential for public, civil or non-government institutions to assist in the training of farmers should be investigated. Two of the most successful companies interviewed during the course of the field work have tripartite structures where a third organisation assists with managerial, logistic, record keeping, training and extension services. It should however be stressed that such assistance can also result in failure. A company contracting farmers to produce vegetables for processing reported that the work done by an NGO had resulted

in poor relationships with the contracted farmers. It is recommended that references from the prospective organisation be requested and investigated before agreeing on a multipartite programme.

The membership of the ZFU largely comprises smallholder farmers. Although inactive in many parts of the country at the time of the survey, the ZFU could play an important role in mobilising communities to support contract farming. The union could also play a role in reducing farmer default.

6.2. Recommendations for the drafting of contract agreements

Contract agreements should be designed to address

- The responsibilities and obligations of each party
- The manner in which the agreement can be enforced
- The remedies that can be taken if the contract breaks down

Box 14
Poor contracting methodology in Zimbabwe

Many companies interviewed complained that farmers had a poor regard for contractual obligations. There seem to be a number of reasons for the development of this attitude. Firstly, it was found to be rare for a company to consult with smallholder farmers when drafting a contract agreement. It was more common for farmers to be asked to sign contracts that they had never seen. Secondly, although most company managers stressed that their representatives explained the contract agreement to farmers there is strong evidence from this study that many farmers did not understand parts of the documents that they signed. Thirdly, most companies kept the only copy of the contract and the farmer had no opportunity to review the terms of contract later in the year. The practice that seemed to have become entrenched was for farmers to 'blindly' sign contracts with scant regard for the contents – their primary motivation was to become eligible for input support. There is also evidence that farmers signed contracts even if they did not agree with the specifications.

In order for a contract to be accepted by farmers it is important that they are consulted in the drafting of the agreement. This will ensure that the wording of the specifications is in language and terms that the farmers can comprehend. It would also be advantageous if contracts were drafted in the language that the farmers are most familiar with. Northern Tobacco planned to draft all 2007/08 contracts in Shona to assist farmers in the interpretation.

Ideally each contracting company should ensure that the contract document complies with the minimum legal requirements in Zimbabwe. It is important however not to make the contract document too complex and the contracts should preferably be short (2-3 page contracts should cover most aspects) . It is unlikely that the contracting company will take legal action against a smallholder farmer because of a breach in contract since the cost of the legal proceedings would far outweigh the amount being claimed. Instead it is important to identify a way of resolving any disputes. An official from the Rural District Council, the District Administrator's office or AGRITEX might be asked to serve as an independent arbitrator.

The format of the agreement is the manner in which the contract is presented and usually takes one of three forms: formal agreement, simple registration and verbal agreement (Eaton and Shepherd, 2001). A formal agreement is a lengthy legal document that details the conditions and obligations of each of the parties. It is mainly used when the farmers rent land from the company.

Simple registration is commonly used by companies under the centralised model and sometimes under the informal model. The term "registration" usually refers to a signed confirmation from the farmer that he wishes the company to reserve a contract for him. Registration is often based on trust and *bypasses formal legalities*. Eaton and Shepherd (2001) recommend that this contract format is a proven and practical way to sustain contractual arrangements. Registration of farmers is usually done immediately after the last harvest. This type of format is common in the cotton industry with one major difference; cotton companies usually include much detail on legal clauses.

Finally, a verbal agreement is commonly used by companies using the informal model. Such agreements are liable to misinterpretation and are generally not recommended.

6.3. Recommendations for contract specifications

Before moving on to the actual specifications it is important to briefly overview group structures and contract signing. Most of the companies interviewed insisted that their farmers should work in grower groups. There are many advantages when farmers are organised into groups including maintenance of infrastructure and roads, ease of logistical support and extension advice. However, signing a contract with a group has its own problems. When contracts are signed with group leadership, the leadership assumes responsibility that individual farmers will meet with contract specifications such as quota, quality and delivery specifications. In other words, individuals become accountable to the group leadership instead of to the company. The company loses contact with individual farmers. Unless the group leadership is strong the contract specifications are unlikely to be met. Conversely, individual contracts place the onus for performance directly on the individual who is accountable to the company. There is individual ownership and individual excellence can be recognised and rewarded by the company. Product quality can be monitored when traceability is important (e.g. pesticide monitoring). The company is able to screen non-performing farmers from future contracts. *It is suggested that a dual contract system might ensure that the company benefits from the best of both systems – a group contract could address the issues that can only be dealt with by groups whilst individual contacts would ensure individual accountability*.

Appendix 2 is a checklist of points that need to be considered in the contract agreement. Most contracts in Zimbabwe are short term because of the nature of the crop. Long term contracts reduce the administrative burden on the company especially when the grower base is very large.

Quotas should be tailor-made to meet with

- The company's requirements – every effort must be made to ensure that production does not exceed the company's ability to process, store or market the produce;
- The farmer's ability – to ensure that the farmer can meet with the stipulated quota;
- The amount of input support – to ensure that realistic quotas are issued.

The company is under an obligation to purchase all of the farmer's produce conforming to the minimum quality criteria – even when oversupply reduces profitability. Companies that have failed to collect produce have caused serious resentment amongst smallholder farmers in the past. Dzingirai (2003) documents how a company failed to collect tomatoes from smallholder contracted farmers during a period of over-supply. Most companies assessed in the project based their quotas on actual volumes from a planted area (e.g. kg/ha). This method has the additional advantage of allowing the company to monitor farmer performance. Crop assessments during the growing season can give accurate yield forecasts. If yields fluctuate widely, abnormalities can be investigated. Where alternative markets exist the company might consider setting quotas below the farmer's production capacity. This will enable them to take advantage of high open market prices for part of their produce and reduce the temptation to side-market.

It is recommended that companies might consider encouraging farmer productivity by through price incentives. For example, cotton farmers delivering up to 800 kg/ha might receive the standard payment. Each kilogram delivered in the range 801-1,500 kg/ha might receive a 7.5% premium whilst deliveries greater than 1,501 kg/ha might receive 15% premium. Such a system will encourage farmers to maximise cotton deliveries and discourage the practice of side-marketing.

The companies interviewed require a diverse range of product grading. In some of the crops (e.g. legumes) a minimal amount of grading was required. In others farmers needed to meet more stringent requirements. In such cases it is important that quality specifications are kept simple:

- The minimum number of grades should be used; and
- The specifications for each grade should be easily understood by both company staff and the farmers. Specifications might include size, weight, maturity, colour, acceptable insect and disease damage, moisture content etc.

Adherence to these recommendations will reduce misinterpretation and farmer confusion. Vegetable farmers interviewed at a number of at irrigation schemes expressed ignorance of the criteria used by the company for grading and said that they had not yet visited the factory where grading was done. Such a situation does not benefit either party. Clear set guidelines have the additional advantage for the farmer that the company is not tempted to unfairly raise quality standards during periods of glut. Hy-veld Seeds distributes sample grades to farmers.

Sometimes quality needs to be assessed under laboratory conditions (e.g. seed germination for seed companies, ASTA content for paprika or sucrose content for sugar cane). When this is the case the criteria should be well explained and understood by the farmers.

All companies interviewed assumed responsibility for crop delivery because transportation was a major constraint faced by communal farmers. Produce was collected from the farm gate, central collection points or delivered at the company's expense. However, the survey identified poor logistical services as being one of the main causes of company default. When companies assume responsibility for crop delivery it is essential that they are sufficiently organised with the requisite resources to keep the timetable schedule given to farmers. Failure to collect produce for any reason will have serious repercussions.

Whatever pricing method is used it is important that farmers should be aware of how prices are calculated, i.e. price structure should be clearly set out. *For contract sustainability, farmers must should at least cover their costs of production and make a small profit.*

High quality should be encouraged through differential pricing. Companies exporting produce are often uncertain of the prices that they will obtain – the cotton, tea and sugar industries have all used the split pricing system whereby farmers are paid a top-up at the end of the season, the magnitude of which is determined by the price the company was paid.
The entire selling process should be well understood and open to farmer scrutiny – anything less will invariably result in suspicion and soured relationships. Firstly, farmers should be informed in the contract agreement about when and how they will be paid. This will enable them to plan their cash flows and reduce the incidence of side-marketing due to uncertain payment terms. Payment delays should be avoided. However, late payment was identified as one of the areas in which companies commonly default.

Optimally, produce should be purchased shortly after harvest when it is in prime condition. Farmers should be allowed to verify the weights and grades of their produce. If grading is done at another location farmers should have an opportunity to send a representative to verify the grades. This will prevent the situation from arising where poor quality produce is rejected in the absence of any farmer witnesses.

Input credit is often described in an attachment to the main contract. Levels of input credit vary from minimal to full support. Input credit availed to farmers by the surveyed companies include land preparation, diesel, seed, fertilisers, agrochemicals, coal, and cash advances. In addition to these, Eaton and Shepherd (2001) record companies in other countries as providing farmers with various items of farm equipment (hoes, watering cans, spraying equipment etc.), operation and maintenance costs at irrigation schemes, small water pumps and school fees. When companies agree to support farmers with input credit it is important that farmers receive inputs well in advance of the season. Timely preparation will avoid last minute logistical problems which, unfortunately, have been another common cause for company default in Zimbabwe.

A statement of account signed by each farmer will ensure that misunderstandings do not occur at the time of loan repayments. Input loan repayments must be calculated in a transparent manner so that the farmer understands any additional administrative, transport and finance charges. A mistake made by the cotton industry was to attempt to build the cost of the input support programme into the cotton price (i.e. lower the price paid to farmers). This resulted in productive farmers being more heavily penalised and encouraged side-marketing.

Although common in the commercial farming sector, agricultural insurance has not been popular in the smallholder sector. Production risks are normally borne by the farmers and crop failures due to unforeseen circumstances can prove difficult to recover from. At the time of the survey, there were a number of insurance companies that provided insure schemes for smallholders. Companies might consider insuring the crop for farmers on a credit basis.

6.4. Directed farming

The success of smallholder contract farming hinges, firstly, on farmers producing high yields and secondly, on delivery of produce to the contracted companies. Reasons for low productivity and farmer default were discussed in detail in Chapter 5. In Chapter 4 it was noted that many companies would likely achieve better results if they adopted a directed farming approach characteristic of the Centralised, Nucleus Estate and Multipartite models. Directed farming was defined as a system in which companies organise farmers and use a

high level of management input in the farmers' production. Effective management and monitoring of smallholder contract farming is a detailed topic which is beyond the scope of this publication. Needless to say, good company management and extension are fundamental for monitoring farmer performance and improving farmers' yields. Many of the causes of low productivity and farmer breach of contract obligation identified during the course of the study can be minimized when the site is well managed and monitored. Appendix 3 lists additional resources that will be helpful to companies engaged in contract farming.

7. References

Anonymous (2007). Contract farming hailed. The Business Herald. Friday 20 July 2007.

Dawes, M. A. (2007). A brief overview of the vegetable sector in Zimbabwe. Draft report submitted to SNV, July 2007.

Dzingirai, V. (2003). Resettlement and Contract Farming in Zimbabwe: The Case of Mushandike. Centre for Applied Social Sciences, University of Zimbabwe Land Tenure Centre, University of Wisconsin–Madison.

Eaton, C. and A. W. Shepherd. (2001). Contract Farming: Partnerships for growth. FAO Agricultural Services Bulletin 145. Rome.

Larsen, M. N. (2001). Zimbabwean Cotton Sector Liberalisation: A Case of Successful Private Coordination? Working Paper Subseries on Globalisation and Economic Restructuring in Africa no. xi. Centre for Development Research. Copenhagen.

World Bank (2007). World Development Report 2008. Agriculture for Development.

Appendix 1: Checklist of factors to consider before engaging a community in contract farming

Market identification		F[1]	A[1]	M[1]
Manufactured product	Is there a proven demand for the product?			
Fresh produce	Is there a market for the fresh produce?			
Side-marketing	Is the product readily side-marketed?			
Industry organisations	Is there an industry organisation with a smallholder grower database to assist in farmer selection?			
Financial/economic assessment				
Profit for the company:	It is necessary to ensure that the chosen market will be profitable for the company in the medium to long term. A sensitivity analysis will ensure that production can be done profitably during years of oversupply. The company must also have confidence that the chosen market will be consistently supplied with produce of acceptable quality in order to maintain its support			
Profit for the farmer	The company must ensure that the venture is likely to be profitable for the farmers in the medium to long term. Farmers must obtain higher net incomes from the contract than they could from alternative activities with the same, or less, risk. Companies must use realistic yields in order to forecast whether production by farmers can be profitable at prices that the companies are prepared to pay. With knowledge of crop yields and production costs, the company can calculate a realistic pricing structure that is mutually profitable. Guaranteed, regular incomes will encourage farmers to make a long term commitment			
Political assessment				
National	Is their political stability?			
	Does government policy encourage contract farming?			
Regional/District	Rural District Council			
	District Administrator			
	AGRITEX DAEO			
	DOI			
	Local Councillor			
Village/Community	Village headman			
	Farmer committee			
Site assessment				
Physical factors	General climatic factors e.g. altitude, incidence of frost, daylight hours			
	Rainfall quantity and distribution			
	Quantity and quality of water for irrigation			
	Soil pH and soil fertility			
	Topography – steeply eroded slopes			
	Does the natural vegetation pose any threat?			
	Do the crops currently at the site pose any threat? For example, through species with a similar disease spectrum			
	Did previous cropping programme pose a threat? For example, nematode build-up			
	Is there a high incidence of problematic animal or insect species (e.g. moles)			
	Physical extent of site? e.g. small and scattered plots of land or one large block?			
Group structure	Is there an existing grower group?			
	Is the group leadership respected by the community?			
Utilities and	Distance from company will influence profitability			

communications	Condition of main and access roads for deliveries and collection			
	Condition of irrigation system infrastructure			
	Reliable electricity for pumping of irrigation water			
	Telephones			
	Reliable power and clean water if any processing/packing is to be done at the site			
	Protection of cropped areas from animals/theft			
	Storage – is there secure, water proof storage facilities for company equipment or harvested crops?			
	Accommodation for extension officer			
	Hospitals and health			
	Schools			
Land availability and tenure	Under what conditions do the farmers live on the land? e.g. Are they owners or tenants?			
	Are farmers able to plant where they chose on their plots? Can the company specify the areas where the contracted crop should be planted?			
	Is there sufficient land and farmers available for commercial viability?			
Input availability	Material inputs – Is the company able to provide farmers with all of the inputs necessary to grow the crop?			
Social factors	Has the community been involved in contract farming in the past? What was the outcome?			
	Existing cropping practices – do these pose a problem to the introduction of the contracted crop?			
	Cultural influences – do cultural responsibilities pose any threat to the contracted crop?			
	Community organisation – are farmers organised into grower groups? Would they agree to group organisation?			
	Does the community have a sound record of paying water accounts (ZINWA), council levies and electricity accounts?			
	How does the community maintain the irrigation system infrastructure e.g. pump breakdown, pipe bursts etc.			
	Would the community accept individual contract agreements?			
	Historic productivity – how productive is this community? What are past crop yields?			
	Has the community received any agronomic, managerial, financial or business training?			
Institutional support				
Public organisations	Are there any government organizations that could assist in building the capacity of the local community?			
	Is there a legal framework to support contract farming?			
	Can the government play an arbitration or dispute resolution role?			
	Are specialized services available to provide institutional support for production, processing and marketing? e.g. research or quarantine facilities			
	Does government have facilities to strengthen farmer capacities?			
	Does government have the capacity to vet project companies?			
Farmers Unions	Are farmers unions supportive of the proposed contract? Would they be able to assist in community mobilization?			
Civil organisations	Are there any civil organisations that could assist in building the capacity of the local community?			
Non-governmental organisations	Are there any government organizations that could assist in building the capacity of the local community?			

[1] F=favourable, A= adequate, M=marginal

Appendix 2: Factors to consider when drafting contract specifications

General factors		Y	N
Responsibilities	The contract should outline the responsibilities and obligations of each party		
Enforcement	The manner in which the agreement can be enforced should be clarified		
Arbitration	The remedies that can be taken if the contract breaks down		
Legal requirements	Does the contract meet with the county's minimum legal requirements?		
Contract format	Will a simple registration format suffice?		
Understanding the contract	Are the farmers consulted in the drafting of the document?		
	Is the language easily understood by the smallholder farmer?		
	Should the contract be written in the local language or bilingual?		
	Does the company employee explaining the contract understand the document?		
	Is the farmer given sufficient time to review the document?		
	Is the farmer given a copy of the contract document?		
Contract signatory			
Signatory	Is it important to monitor individual accountability and performance or will a group contract suffice?		
Contract specifications			
Contract duration	Would a short term or long term contract be more suitable?		
Quality standards	Has the number of grades been kept to a minimum?		
	Does each grade should have a clear description of quality criteria that are easily understood?		
Production quotas	Does the quota match the company's ability to process, store or market the produce?		
	Is the farmer able to achieve the quota with the amount of input support?		
	Is the quota based on actual product volumes for the planted area?		
	Is the quota based on the level of company input support?		
	Is it possible to encourage farmers to increase productivity by giving higher prices when specified production targets have been obtained?		
Cultivation practices	Detailed specifications for cultivation practices should be made available to the farmer		
	All supplied inputs should be used in the correct quantities and farmers should follow recommended cultivation practices		
	No unauthorised agrochemicals should be used		
Crop delivery arrangements	Farmers should be informed of transportation arrangements		
Pricing arrangements	Farmers should be informed of the pricing structure		
	Prices should be related to grade specifications		
	Farmers should be informed of payment times and methods		
	Farmers should be allowed to verify weights of their produce		
Insurance arrangements	Companies might consider making insurance available to farmers		
Technical support	The contract should specify the extension support availed by the company including the duties of extension staff		
Management	Farmers should be informed of how the company intends to manage the contract		
Input support	Details of input support are usually presented as an attachment to the contract agreement		

Appendix 3: Additional reading

Anonymous. 2006. Contract farming offers fresh hope for Africa's declining agriculture. East Africa Policy Brief. No 2. NEPAD Secretariat Agriculture Unit, Pretoria. South Africa.

Baker, D. and C. Da Silva. 2006. Contracting issues at various levels of the value chain. Paper presented at workshop on Governance, Coordination and Distribution along Commodity Value Chains. FAO, Rome, 4-5 March 2006.

Bijman, J. 2008. Contract farming in developing countries: an overview. Wageningen University Department of Business Administration

Bogetoft, P. and H. B. Olesen. 2002. Ten rules of thumb in contract design: lessons from Danish agriculture. European Review of Agricultural Economics. 29 (2): 185-204.

Eaton, C. and A. W. Shepherd. 2001. Contract farming – Partnerships for growth. FAO Agricultural Services Bulletin 145. Rome. Italy.

Likulunga. M. L. 2005. The status of contract farming and contractual arrangements in Zambian agriculture and agribusiness. FARNPAN Report. University of Zambia. Lusaka. Zambia.

Mudhara, M. and P. Kwaramba. 2002. Marketing through contracts and sub-contracts by smallholder farmers of Zimbabwe. Friedrich-Ebert-Stiftung Library, 2002 Digital library. Bonn. Germany.

Mwenda I. 2005. Analysis of Contract Farming in Zambia, South Africa, and Malawi. FANRPAN. Pretoria. South Africa.

Rusike, J., and J. Dimes. 2004. Effecting Change through Private Sector Client Services for Smallholder Farmers in Africa. New Directions for a Diverse Planet: Proceedings of the 4th International Crop Science Congress, Brisbane, Australia, 26 Sep – 1 Oct 2004. (www.cropscience.org.au).

Sartorius, K. and J. Kirsten. 2005. The potential of contract farming to expand small-scale production in South Africa, Malawi and Zambia: a FARNPAN report to determine the way forward. FARNPAN Report. Pretoria. South Africa.

Shepherd, A. W. 2007. Approaches to linking producers to markets. Agricultural Management, Marketing and Finance Occasional paper. Rome. South Africa.

Woodend, J. J. 2003. Potential of contract farming as a mechanism for the commercialisation of smallholder agriculture - The Zimbabwe case study. FAO Report. Harare. Zimbabwe.