

## CHAPTER 4

# CHARACTERISATION OF AGRICULTURAL CONTRACTS IN THE WINTERVELD REGION

### 4.1 INTRODUCTION

The purpose of this chapter is to characterise all identified contractual arrangements in the Winterveld region. Characterisation of identified contractual arrangements in Winterveld region was based on a general description of the contracting firm and contracted farmers, nature of contract (whether its formal or informal), contract negotiation, price discovery and payment structure, responsibilities of contracting firm and contracted farmers, contract enforcement and conflict resolution and opportunities and threats that are associated with the contract. The criteria for choosing contractual categories were based on the produce under contract. The justification for using the produce was to understand whether product form and inherent characteristics shape the nature of the contract, contract negotiation and payment structure.

Three different types of contractual arrangements have been identified in Winterveld region. All of them are market specification contractual arrangements, but they differ in form, products and contractual agreements. This includes the valencia contract, leafy vegetables contract, navels contract and the public tenders' contract as illustrated in Table 4.1 below.<sup>8</sup>

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<sup>8</sup> See Annexure 2 for a detailed categorisation.

**Table 4.1: Characterisation of agricultural contracts in the Winterveld region.**

Contract type	Contracting firm	Product	Number of farmer*
Type 1 (Marketing specification valencias contract)	Magaliesberg Citrus Company (MCC)	Valencias	28
Type 2 (Marketing specification contract: leafy vegetables and navels)	Pick and Pay	cabbages, spinach, onions, navels	20
Type 3 (Marketing specification contract: public tenders)	Gauteng Service Centre (GSSC)	all kinds of vegetables	5

\*note: some farmers are contracted to more than one product

## 4.2 MARKET SPECIFICATION MAGALIESBERG VALENCIA CONTRACT

### 4.2.1 General description

Magaliesberg Citrus Company (MCC) was transformed into a public company in 2005 from a cooperative which had evolved from a pack house founded in 1959. MCC is located in the Brits area. The company procures citrus fruits from its contracted farmers and crushes them to produce fruit concentrates, fruit juices and oil. Residues (crushed oranges pills) are sold to an animal feeds company in the area and the oil is sold to pharmaceutical companies. Besides making fruit concentrates and juices, the company also procures other fruit juice concentrates and blends them to make fruit cocktail juices. The company has 12 depots in South Africa, 3 in the SADC region (Lesotho, Botswana and Swaziland) and an international depot in the United States of America. MCC has a board of directors who are chosen from its shareholders.

MCC procures citrus fruits from 100 contracted farmers (both smallholder and large-scale farmers) in the vicinity of 45 kilometres. For a farmer to supply MCC, he/she has to be a shareholder first.

All contracted farmers form part of the shareholding structure of the company and they are invited to the annual general meetings of the company where income and financial statements are revealed. MCC shares are traded to prospective fruit suppliers through their GK Auditors in

Sandton. Only farmers who have proof<sup>9</sup> of supply are capable of buying such shares. One ordinary share is equivalent to 1 ton of fruit that the farmer can deliver and gives the shareholder voting rights and nomination rights for being a board member or director. If the farmer is not able to deliver the fruit, shares may or can be traded to other farmers who are able to.

MCC has a processing capacity of 60 000 metric tons of fruit every year. The company procures a number of citrus fruit varieties which includes lemons, clementines, jusinto, novas, naartjies, navels, primers, midnight, tamboro and valencias.

MCC is an ISO 900 certified company and follows a number of global food quality and safety standards, which include, among others, EurepGAP and HACCP. These standards are enforced by all contracted farmers through full-time citrus extension officers on the company's payroll.

The need for the company to be AgriBEE compliant saw the company engaging in contractual arrangements with smallholder farmers in the Winterveld region. Prior to the contractual arrangement with Winterveld smallholder farmers, MCC used to be supplied only by large-scale commercial farmers in the Brits area who are predominantly white farmers.

The inception of the contractual arrangement between MCC and WUFA saw MCC giving WUFA a total of 300 shares in the company. The agreement was signed by the WUFA representatives on behalf of WUFA citrus farmers. Box 4.1 below describes how WUFA operates.

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<sup>9</sup> Physical field inspections are done by MCC personal in order to verify whether the farmer has citrus which is bearing fruit or not.

#### **Box 4.1: WUFA operations**

Currently WUFA has 65 active member farmers and most of them with valencia orange trees in their orchards. In addition, the organisation has a 34 hectare cooperative farm (Section 21 or Winterveld Cooperative Project (WCP)) mainly growing citrus (80 % valencia and 20 % navels). The cooperative farm is run by a full-time farm manager with close cooperation and monitoring from elected WUFA representatives. Section 21 has a fully furnished pack house with a grading line for oranges. During harvesting period the farm employs up to 19 casual workers on a R50.00<sup>10</sup> per day over a period of two months and 12 permanent workers currently. WUFA members with individual citrus orchard during harvesting time bring their navel oranges to WCP for grading, packing and marketing. For valencia oranges farmers bring their fruit for grading in transit to MCC for juice making.

The contents of the contractual agreement between WUFA and MCC are not known by most member farmers although they acknowledge<sup>11</sup> that there is a written agreement. Administration of the 300 shares is in the hands of WUFA representatives and, surprisingly, most individual member farmers do not know of the existence of these shares.

#### **4.2.2 Nature of contract**

The WUFA-MCC contractual arrangement is a formal market specification contract based on a share system. Theoretically, each contracted farmer is supposed to supply oranges which are equal to the number of shares he or she holds in the MCC. Collectively, WUFA farmers are supposed to supply MCC with 300 tons of oranges each season, which corresponds to the number of shares they collectively own, however they have not yet reached that target. Fortunately their shares have not been traded. In fact shares were given according to the expansion or growth path of WUFA. Farmers have to adhere to MCC specified growing, fertilisation and pest control standards which are enforced by its monitoring agents (extension officers). MCC extension agents visit farmers either upon request or without farmer's request. Failure to comply with such requirements results in fruit rejection and in some cases in trading of share to farmers outside WUFA who are more capable.

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<sup>10</sup> Rates for the agricultural season 2009/2010

<sup>11</sup> Source: Survey results

Individual WUFA farmers are not bound by any clause to sell all their fruits to MCC. When they have a better market opportunity, they are free to sell their fruit without any legal consequences or reprimands from either WUFA representatives or MCC.

#### **4.2.3 Contract Negotiation**

The MCC-WUFA contractual arrangement is not a fixed arrangement; each season a new contractual agreement is negotiated depending on the quantity of fruits the farmers can supply. Between January and June, surveys are carried out by MCC extension staff to determine how much a farmer is capable of producing. This is reached using an agronomic model based on weather conditions. Upon calculating the quantities a farmer can supply, the contract is concluded.

#### **4.2.4 Price discovery and payment structure**

Marketing of valencia oranges to MCC is done collectively by WUFA farmers. In addition to produce from WCP, individual WUFA farmers bring their valencia oranges to WCP where the quantity brought is recorded and offloaded into bins waiting for freighting. Here accumulation of heterogeneous quality oranges occurs. Traceability of the fruit back to the farmer gets lost since farmers mix oranges. Inasmuch as MCC would like all oranges procured from farmers to have certain levels of growing standards, oranges from individual WUFA farmers' plots are not homogeneous in quality and most of them are grown without strictly following EureGAP standards. Once a certain tonnage has been reached, WUFA representatives communicate with MCC, which in turn sends its trucks to freight the oranges (valencias) for processing. Transport costs are borne by MCC.

Pricing of oranges depends on the acid/sucrose ratio and the internal quality of the fruit. Realised price is also affected by the final selling price of the orange juice. For the season 2009/10, WUFA farmers were getting an average of R4 per 7 kilogram bag<sup>12</sup> of oranges. Farmers do not get paid for other by-products from the oranges such as oil and crushed orange pills. However,

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<sup>12</sup> See Table 5.6 in Chapter 5

they are supposed to stick to quality regulations in their production cycles. If they fail to adhere to these standards, this results in rejection of these by-products, particularly oil, which is used in the pharmaceutical industry. This implies that the additional increase in production costs particularly incurred due to sticking to a number of growing and spraying standards are not realised from the revenue streams of farmers.

Acid/sucrose tests are conducted by the MCC technician and results of the test samples are sent to farmers via emails. For the case of WUFA farmers, samples are sent to WCP farm manager. Most farmers acknowledged that tests are done but they were never communicated to them by the WCP farm manager and/or WUFA representatives.

Farmers receive their first payment in November after selling their oranges in July, which will be 50 % of the final price, and a subsequent 25 % is payable in March and the balance is paid up in June. The payment structure enables MCC to sell some of its juice concentrates and by-products such that it will be in a position to pay its fruit suppliers (farmers). For WUFA farmers, payments are deposited into the WCP account and subsequently farmers are paid in proportion to what they supplied. This is only payable after a WUFA fee of 5 % of the selling price of a 7 kilogram bag has been deducted. This money is channelled towards the operational costs of WCP. All proceeds from collectively owned oranges are channelled towards the operational costs and capitalisation of WCP. About 90 %<sup>13</sup> of WUFA farmers interviewed acknowledged the fact that they do not understand how the pricing is done and the conditions of payment. They also acknowledged that they only receive payment after a whole year from the date of sale. This has led to the growing disgruntlement among citrus growers in Winterveld region to the extent that some farmers are no longer tending their orchards and consequently resulting in poor fruit quality and quantity. Some are even opting out of the association (WUFA) because of its lack of transparency.

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<sup>13</sup> Source: Survey results.

#### **4.2.5 Responsibilities of the contracting firm and farmers**

MCC employs some extension officers who move around advising farmers on the technical side of production, which includes the type of chemicals to use, doing soil samples, leaf samples and advising farmers on the type of fertiliser to apply, when and how. This is done free of charge for all the contracted farmers. In cases where farmers need specific technical information, they are free to contact MCC at any time. Again, this is done free of charge. Extension officers also advise the farmers to stick to certain growing standards and all spraying records have to be kept and shown by the farmer upon request. This is done in order to meet food quality and safety standards since the company exports some of its products to international markets and some of its by-products are used in the pharmaceutical industry. However, it is important to point out that for individual WUFA farmers such information and technical advice is only imparted to them by their representatives in their monthly meetings. There is no direct exchange of technical information between individual WUFA farmers and MCC extension officers. Advice and field visits are restricted to the WUFA cooperative farm (Section 21/WCP). Technical information is expected to be copied from WCP by individual farmers.

No credit advancement or advance payments are extended to farmers by MCC. Farmers foot production costs on their own except for technical information which is free. However, WUFA got substantial grants from both public and private sectors and these include the Kellogg Foundation, Tshwane Fresh Produce Market, North-West government, the Muslim community in Laudium, Pretoria, the National Development Agency (NDA) and individuals from the private sector. These grants have been used to finance capitalisation, buying land, operational capital for WCP and WUFA and buying citrus tree seedlings.<sup>14</sup>

#### **4.2.6 Contract enforcement and conflict resolution**

In order to avoid tendencies of free riding on the quality of oranges, WUFA quality controllers at the cooperative farm (WCP/Section 21) do visual quality checks before accepting oranges. However, this does not uproot elements of free riding, since most of the quality controllers are

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<sup>14</sup> Refer to Box 3.1 in Chapter 3

locals with relations with some of the farmers. In many cases non-confrontational methods of reprimand are at play.

In cases of farmers failing to meet the required product quality, quantity and specified growing standards, the farmer is advised that his or her share(s) may be traded to prospective shareholders. This is done by MCC's GK auditors in Sandton. Since some of the farmers are board members, there is transparency and accountability on the part of the company to farmers. In the case of WUFA farmers one of their representatives sits on the board of directors of MCC; however, farmers still do not know the trading position of their shares. This in particular is posing a great threat to the long-run sustainability of the contractual arrangement. Some of the farmers are venting their anger in subtle ways like ignoring tending their orchards and selling as much as they could to markets other than the MCC when opportunity arises.

Neither MCC nor farmers are in a position to take legal recourse in cases of contractual failure, non-compliance or non-performance. There is no legal clause that binds transacting partners to certain exchange conditions. This leaves both transacting partners with room for strategic defaulting when conditions do not suit them well.

#### **4.2.7 Opportunities of the contractual arrangement**

There are a number of opportunities associated with this contractual arrangement, which include, among others, that farmers gain from improved production methods, a secured market and a potential of capacity to investment in improved farming systems. Through technical information which is given free of charge by MCC extension officers, if farmers follow it, they can enhance their production methods, which in turn results in increased volumes and quality that a farmer can produce.

Furthermore, MCC provides farmers with a secured market where in particular farmers can sell large volumes at a time. Although MCC offers WUFA farmers relatively low prices<sup>15</sup> per unit

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<sup>15</sup> See Table 5.6 in Chapter 5.



compared to other alternative markets, it acts as a sink market where farmers can sell large volumes considering that supply of oranges at the time of sale will be high.

#### **4.2.8 Threats of the contractual arrangement**

Like any other contractual arrangement, WUFA/MCC arrangements are subject to some contractual risks. Firstly, there is very little disclosure of contractual agreements to individual WUFA farmers, although most of the WUFA representatives acknowledged they understand what the arrangement entails. This non-disclosure of contractual information and trading position of the ‘alleged shares’ has led to poor performance of the contractual arrangement. As alluded to earlier on, farmers are venting their frustration in subtle ways.

Secondly, the fact that WUFA farmers only receive payments once, after a whole year from date of sale, also contributes to non-performance of the contractual arrangement. This has crippled many farm operations and overstretches the already overstretched financial resources of the smallholder farmers. The WUFA/MCC contractual arrangement locks farmers’ land out of other profitable enterprises. Citrus is a perennial crop, and orchard establishment is a sunk cost to the farmer. In fact this implies that farmers are bound to lose in case of poor produce pricing in the market. This is particularly true for all valencia farmers in the region, who rely heavily on MCC as their sole buyer of large volumes.

### **4.3 MARKET SPECIFICATION CONTRACT: PICK AND PAY NAVELS AND LEAFY VEGETABLES**

#### **4.3.1 General description**

Pick and Pay is one of the leading South African retail supermarkets, operating in a number of countries in Africa. The Pick and Pay Mabopane franchise was opened in 2005 to serve the Mabopane and Soshanguve areas and it was the first ever black owned franchise store. Mostly, Pick and Pay stores procure their agricultural merchandise from their Central Distribution Warehouse (CDW) in Johannesburg, but as part of their social and corporate responsibility, some

of its franchise stores can also procure vegetables and fruits locally from both smallholder and large-scale farmers.

When procuring locally from smallholder farmers, Pick and Pay does not use its strict food quality and safety standards; instead most of the standards will be relaxed. Produce from smallholder farmers in Winterveld is not subjected to strict food quality and safety requirements. This, in particular, lessens transaction costs for smallholder farmers and makes it easier for them to supply vegetables and fruits.

Pick and Pay procures its vegetables and fruits from both small-scale and large-scale commercial farmers with both implicit and explicit contracts respectively. For smallholder farmers in the Winterveld, both individual farmers and collective farmers (WUFA members) are free to supply Pick and Pay with navel oranges and vegetables as long as they meet the quality and quantity requirements. However due to the very small portions<sup>16</sup> of the plots under vegetable production, most smallholder farmers in Winterveld fail to meet the quantity requirements of Pick and Pay. This has prompted procurement from nearby large-scale farmers with formal agreements. On the other hand, Pick and Pay procures most of its navel orange requirements from smallholder farmers in the Winterveld region.

#### **4.3.2 Nature of the contract**

This is an informal contractual arrangement where contract closing is done after some visual inspection of fruits and vegetables by Pick and Pay buyers. There are no written contractual documents; the contract is verbally concluded. Each contract varies depending on quality of produce and its relative scarcity in the market.

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<sup>16</sup> An average of less than a quarter of a hectare is dedicated to vegetable production. For the four kinds of vegetables in the survey cabbages had an average of 0.11ha, spinach with an average of 0.2ha, onions with an average of 0.12ha while lettuce had an average of 0.02 ha. Source: Survey results

### 4.3.3 Contract negotiation

Individual farmers bring their vegetables samples to Pick and Pay, where price negotiations are done and these vary depending on the quality of the vegetables the farmer has brought. Quality of vegetables is qualitatively measured with parameters such as colour, freshness and size. Volumes to be traded depend on how much the farmer has at the time of contract negotiations. Required quality has been communicated to smallholder farmers in Winterveld through Pick and Pay Foundation sponsored farmer training workshops. Not all smallholder farmers supplying Pick and Pay attended these workshops, but it was expected that peer pressure and social networks would convey the information to non-participants.

For WUFA navel farmers, through their representatives, prices are negotiated with Pick and Pay buyers according to the quality and volumes of oranges they can sell. This is done every season when the harvest is ready. A schedule of delivery is set and the conditions of packaging are prescribed to farmers by Pick and Pay. Although packaging is prescribed, navels are sold with WUFA brand name Bosele.<sup>17</sup> There is no written proof that legally binds either the supermarket or the farmers to any terms of exchange.

### 4.3.4 Price discovery and payment structure

WUFA farmers collectively lobby for a certain benchmark price and members individually makes some contacts with Pick and Pay pertaining to the kind of vegetables they have. In fact the farmer has to take vegetable samples to Pick and Pay where further negotiations on price resume depending on the quality of vegetables. Payments are made a week later and are paid directly into the farmer's account or direct cash payment is made to the farmer.

For non-WUFA farmers, contract negotiation is done individually. Samples of vegetables are taken to Pick and Pay where price negotiations are done. After negotiations, farmers transport their vegetables to Pick and Pay where they get a receipt of delivery. Payment is made directly into the farmer's account after a week or direct cash payment is made to the farmer.

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<sup>17</sup> *Bosele* is a Sotho word meaning 'stand up and do something'.

Leafy vegetables are sold in bundles of 25-30 leaves. Size of the produce matters most for cabbages, lettuce and onions. For the season 2009/10, a bundle of spinach was going for an average of R2.50, which is almost half of what the farmer gets when selling at the farm gate or to hawkers.<sup>18</sup> Although farmers realise low prices, it is important to note that they can sell large volumes at a time to Pick and Pay, compared to any other alternative markets.

For navel farmers, marketing is done collectively. In addition to the navels produced on the cooperative farm (WCP/Section 21), individual WUFA farmers bring their navels to WCP where polishing, grading and packaging is done. The quantity of fruit sent by the farmer is tallied to his name for payment purposes. Traceability of fruit back to the farmer is lost since oranges are mixed. When a certain volume is reached which Pick and Pay and WUFA representatives have agreed on, Pick and Pay sends its truck to pick up the oranges, and farmers are not charged for transport costs incurred.

Payment is made a week later and is paid into WCP's account. Individual WUFA farmers only get paid after value addition expenses have been deducted. In addition to that, a 5 % fee per 7 kg bag selling price is deducted, which is channelled towards WCP operational costs. Farmers' revenue is proportional to the amount of fruit they have sent to WCP. Selling price is mainly influenced by the market forces at the time of exchange and in many cases Pick and Pay uses TFPM produce prices as benchmarks.

All revenue from collectively owned navels (that is from the WCP farm) in the meantime is channelled towards WCP and WUFA operational costs and farm capitalisation. Plans for the future are that farmers will get dividends at the end of each trading season.

#### **4.3.5 Responsibilities of contracting firm and farmers**

Pick and Pay does not assist farmers directly with inputs and/or technical assistance. However before Pick and Pay opened its branch in Mabopane, its foundation in Cape Town drilled some

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<sup>18</sup> See Table 5.6 in Chapter 5

27 boreholes for smallholder farmers in Winterveld and sponsored some farmer training workshops.

In some cases, Pick and Pay acts as an inputs market for farmers. Pick and Pay sells a variety of vegetable seeds and garden tools, and farmers frequently buy some of their farm tools and seeds, although not on a large scale. This offers smallholder farmers great convenience since most of the agricultural inputs retail shops are as far as 40 kilometres away from the Winterveld. Pick and Pay does not offer credit or advance payments to farmers.

#### **4.3.6 Contract enforcement and conflict resolution**

WUFA employs quality controllers at its cooperative farm, where oranges are polished, graded and packed. There are strict quality controls in place to avoid free riding; however, elements of non-confrontational methods of reprimand on quality exist since quality controllers are locals and in some cases are related to farmers. This means that elements of opportunistic behaviour and free riding on fruit quality are prevalent. Nonetheless, failure to meet quality requirements as prescribed by the quality controllers results in rejection of fruit. WUFA in particular lowers transaction costs for Pick and Pay.

Through the benefits that the Winterveld community got from Pick and Pay (boreholes and sponsored farming workshops) interviewed farmers felt obliged to supply Pick and Pay with the best quality of fruit and vegetables they have. This contractual arrangement is hinged on trust, loyalty and reputation.

#### **4.3.7 Opportunities of the contractual arrangement**

The Pick and Pay contractual arrangement enables farmers to sell large volumes at a time, although realised prices are normally low as compared to other alternative markets. This is quite advantageous to farmers, however, since most vegetables rapidly decline in quality once they reach maturity. Furthermore, most of the farmers do not have post harvesting handling facilities at their farms.

#### **4.3.8 Threats of the contractual arrangement**

Most farmers interviewed complained about unfair business practices by Pick and Pay at their expense. For instance, a bundle of spinach bought by Pick and Pay for a meagre R2.50, is sold for over R7 to consumers. In fact, the 25-30 leaves spinach bundle is split into two and sold for R3.50 each to consumers after adding a 99 cents mark up.

On the other hand, in many cases smallholder farmers in the Winterveld supply only meagre quantities which in particular increases Pick and Pay's transaction costs, particularly when they have to search for alternatives sources to augment the little that has been supplied.

Visual inspection of quality with no set and written quality standards or parameters creates a lot of discontent among farmers, which in some cases farmers interpret as favouritism, for example, if one farmer gets a better price than another for the same type of produce.

With no written contractual obligations between transacting partners and very low switch on and off costs, both partners are left with room to explore profitable business ventures outside the contract. This in some cases leads to non-performance of the contractual arrangement.

### **4.4 MARKET SPECIFICATION CONTRACT: PUBLIC TENDERS**

#### **4.4.1 General description**

Through the Agricultural Black Economic Empowerment (AgriBEE) policy initiative of the Government, some smallholder farmers in the Winterveld region got into some contractual arrangements of supplying Gauteng hospitals with all kinds of vegetables. This was done as an endeavour to empower smallholder farmers by improving their market access. Farmers had to bid for the tendered services by the Gauteng Shared Service Centre (GSSC). Upon getting such tenders, farmers had to undergo an intensive training programme in food hygiene, quality and safety. This was done for free to those farmers who had won the tender.

Public tenders for supplying Gauteng Hospitals with fresh vegetables were advertised in the public media and through help and advice from the DAFF, five smallholder farmers in the Winterveld won the tenders. In fact, the DAFF was involved in the selection of farmers who

were capable of producing the required quality and quantity and the selection hinged on whether or not the farmer had a greenhouse and reliable motorised vehicle. The DAFF supplied information about government tenders and helped farmers with business plans and cash-flow projections required for them to win the tenders. When the farmers won the tender, conditions of the service to be delivered were sent to them, which they had to accept or reject and forfeit the contract.

Only smallholder farmers with certain non-land assets such as greenhouses, irrigation equipment and reliable vehicle(s) were contracted. This pre-selection bias is backed by the presumption that farmers will be able to produce the required quality of vegetables and at the same time will be able to transport them to the hospitals while they are still fresh. All the smallholder farmers in this contractual arrangement are WUFA member farmers.

#### **4.4.2 Nature of contract**

This is a formal fixed contractual arrangement. The contract runs for 3 years and prices are reviewed after every 6 months. Contract renewal is subject to farmers' performance. The value of the contract or tender is also stipulated; however, vegetables to be supplied depend only on the needs of the hospital to be supplied. Each month, the hospitals which the farmer is supposed to supply with fresh vegetables send an itinerary showing stipulated vegetable volumes, quality and form. The initial arrangement was for the farmers to supply their own vegetables but in many cases, where the farmer does not have the vegetables, he or she has to outsource. Outsourcing can be done from other farmers but farmers mostly prefer the TFPM where they get a variety of vegetables under one roof. This contractual arrangement started in 2009. The arrangement is legally binding and in case of failure to meet the contractual obligations, the GSSC and/or the farmer are capable of taking a legal recourse to claim business lost due to non-compliance.

#### **4.4.3 Contract negotiation**

Contract negotiation is done every 6 months and renewed after 3 years. Negotiations are done collectively by contracted farmers with GSSC, but contract signing is done individually by

farmers. Only WUFA member farmers got contracted. This might hinge on lessening transaction costs particularly for GSSC

#### **4.4.4 Price discovery and payment structure**

Farmer received inflation adjusted, fixed prices for their produce for a period of 6 months. At the end of each 6 months they meet the GSSC for new price negotiations and reviews. In most cases prices from the Tshwane Fresh Produce market are used as benchmarks.

After each delivery of vegetables to the hospital, farmers get a delivery receipt which they use to invoice GSSC. Payment is done within a month after delivery, direct into farmers' accounts.

#### **4.4.5 Responsibilities of contracting firm and farmers**

GSSC does not extend financial credit or offer advance payments to farmers, but farmers got training on food hygiene and safety for free before starting supplying vegetables to the hospitals. Furthermore, these farmers enjoyed free greenhouses and irrigation equipment from the National Department of Agriculture.

#### **4.4.6 Contract enforcement and conflict resolution**

In cases where the farmer or GSSC is failing to meet the contractual obligation, transacting partners are in a position to take legal recourse. Poor performance by farmers will only dent their chances for contract renewal. In fact, this acts as an indirect enforcement mechanism for the farmer's compliancy, since GSSC offers the best price<sup>19</sup> compared to other markets.

#### **4.4.7 Opportunities of the contractual arrangement**

This contractual arrangement gives an opportunity for farmers to improve their income. Usually prices are far higher than those of other alternative markets. This in particular capacitates farmers

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<sup>19</sup> See Table 5.6 in Chapter 5



in improving their farming system and investing in value addition. For instance, some of the farmers are adding value their vegetables through chopping and peeling before delivering them to the hospitals. This is mostly preferred by hospitals because they require ready to cook vegetables which reduce their operational costs significantly.

#### **4.4.8 Threats of the contractual arrangement**

Fixed prices for a period of 6 months act as a potential price risk for farmers considering the volatilities in food prices. This is particularly a problem to farmers when they do not have the vegetable type on their farms. Outsourcing when the supply of the product is scarce is sometimes so expensive that all the benefits from high prices will be swept away.

Furthermore, the design of this contract was not well structured<sup>20</sup> especially in terms of what the farmer has to supply. Fresh vegetables have got a wide variety and form. The contractors (GSSC) were rather too optimistic when they expected the farmers to produce a wide range of vegetables on their plots. In fact, that is why most of the farmers practice outsourcing because they cannot produce according to the varying vegetable demands of the hospitals.

### **4.5 OTHER MARKETS FOR AGRICULTURAL PRODUCE FROM THE WINTERVELD.**

#### **4.5.1 Introduction**

Smallholder farmers in the Winterveld are not only restricted to contractual arrangements when selling their produce. Farmers can also sell their produce at the farm gate, to the community and hawkers on spot market arrangements. In particular, there are three types of hawkers identified in the study area, which are the mobile, semi-mobile and the fixed hawkers. Winterveld smallholder farmers have been transacting with hawkers for over five years and some relational trust has developed. Most hawkers buy their merchandise from farmers on a cash basis, but there are some exceptions where farmers supply their crops and only receive their payments after produce have

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<sup>20</sup> See Annexure 2

been sold. In other instances, farmers deliver produce to the hawkers' tables and this is predominant with fixed hawkers. Two-way exchange of information and high frequency of exchange for long periods result in foreclosure of future profitable exchanges, which keeps defaulting at bay.

#### **4.5.2 Nature of exchange**

This is a spot market contractual arrangement where a transaction is concluded after visual inspection and sometimes tasting of vegetables or fruit has been done by the buyer. In some cases, there is commitment from the part of the hawkers to buy from specified farmers due to repeated interactions and ease of transactions. There are no written agreements. The exchange is based on trust, loyalty and reputation.

#### **4.5.3 Price discovery and payment structure**

Price of produce is mainly influenced by market forces, but frequent exchanges result the parties knowing each other, which in many cases influences the price of produce. Depending on the level of trust, hawkers have to pay cash upfront, or where trust is high, hawkers can pay for agricultural merchandise later on an agreed date.

#### **4.5.4 Responsibilities of exchange partners**

Transactions are done at the farm or at the hawker's table. Usually, when transactions are done at the farm the hawker foots the transport costs, while on the other hand when transactions are done at the hawkers' table the farmer bears the transport costs.

Hawkers do not provide inputs, technical assistance or credit to farmers. However, they constantly feed farmers with information on vegetable quality and type consumers are demanding in the market. This helps farmers to plan their production according to consumers' needs and preferences.

#### **4.5.5 Exchange enforcement and conflict resolution**

Reputation is a major factor contributing to conflict resolution. All transacting parties are concerned with their reputation. For instance, if a farmer gets bad reputation, he or she loses their potential market while at the same time a bad reputation for hawkers only means that his or her procurement sources will be narrowed. Through repeated transactions, foreclosure of future profitable transactions takes place which in many cases acts as a safety valve for contractual failure.

#### **4.5.6 Opportunities**

Most hawkers pay for their products in cash and this helps the farmers with the much needed finance for their daily operations. Frequent interactions characterised with exchange of information enable smallholder farmers to adapt to changing consumer preferences. Comparably, hawkers offer competitive<sup>21</sup> prices; however, their inconsistency in procuring and their procuring of low volumes act against the farmers if they rely heavily on them.

#### **4.5.7 Threats**

This exchange arrangement is difficult to enforce legally. Due to relational exchanges, mostly non-confrontational and face-saving mechanisms are at play, and this may lead to contract failure. The prevalence of information asymmetry in the market makes it difficult to guarantee quality and quantity exchanged. Furthermore, prices are not guaranteed for either transacting partner, making it particularly difficult for either party to make decisions. Because there is no guarantee of quality, quantity or prices, transacting partners are bound to have increased transaction costs when they seek to exchange information. However, reliance on trust, reputation and loyalty have been found to minimise transaction costs compared to reliance on litigation and third party arbitration.

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<sup>21</sup> See Table 5.6 in Chapter 5

## 4.6 SUMMARY

This chapter has characterised all the identified contractual arrangements in the Winterveld. All were market specifications contractual arrangements and they varied significantly in form, products and contracting firms. Some explicit contractual arrangements were legally enforceable while others were not. No informal contractual arrangements were legally enforceable and were mostly based on trust and loyalty.

There are different motives for smallholder farmers in the Winterveld engaging in the identified contracts. The public tenders' contract is heavily supported by public funds and is highly politically motivated for its sustenance, while on the other hand, the Valencia contract with MCC is motivated by improving the company image and being AgriBEE compliant. The contractual arrangement with Pick and Pay has elements of both commercial orientation as well as political motivation. Procuring locally makes some commercial sense, but at the same time it comes with high transaction costs from low volume capacities and lack of consistency in quality. It also appears politically motivated, especially since dealing with organised farmers like WUFA and selling their oranges with their brand name will only improve Pick and Pay's public image. All informal contracts identified are heavily reliant on trust and loyalty for their sustenance.

Different contractual arrangements have specific contractual opportunities and threats associated with them. A number of opportunities were identified, which included, among others, having access to stable markets, having access to improved technology and the potential of realising high price of output. However, like all contracts in general, agricultural contractual arrangements suffer from incompleteness. Incompleteness varies, from non-disclosure of certain clauses or information in the contractual arrangements to visual inspection of produce quality with no written set of quality parameters. This, in particular, has caused poor performance of some contractual arrangements, since it left room for strategic defaulting among transacting partners.

## **CHAPTER 5**

# **IMPACTS OF CONTRACTUAL ARRANGEMENTS ON SMALLHOLDER FARMERS' IN WINTERVELD REGION**

### **5.1 INTRODUCTION**

This chapter presents the impacts of contractual arrangements on smallholder farmers in the Winterveld region with reference to among other things farmers' incomes and market access. This was done by assessing farmers' access to output and input markets. Also, analysis of farmers' ownership of land assets was carried out in order to assess whether they are determinants in farmers' participation in contractual arrangements. Furthermore, analysis of marketing price risk was carried out. In particular, agricultural marketing carries a significant risk for farmers. Agricultural marketing is unique in three dimensions. In most cases, agricultural products are bulky and perishable and their pricing and distribution are considered strategic by most governments. Through analysis of prices in each market coordination mechanism, some insight might be gained into whether contractual arrangements improve smallholder farmers' market price risk in the region. Lastly, analysis of farmers' gross farm incomes was carried out according to whether the farmer was participating in contractual arrangements or not. This was done in order to ascertain whether or not contractual arrangements improve smallholder farmers' farm income.

### **5.2 ACCESSIBILITY OF MARKETS TO SMALLHOLDER FARMERS IN THE WINTERVELD REGION**

#### **5.2.1 Access to agricultural output markets**

Most farmers stated that they are not capable of effectively using the existing marketing infrastructure such as the Tshwane Fresh Produce Market (TFPM). Farmers acknowledged that high market and agents fees as well as cost of transport impede them from participating in such markets. TFPM charges 5 % fee for administration and for using its facilities while marketing agents charge 7.5 % fee for marketing farmers' produce. Indeed, farmers get 12.5 cents less per each rand of their produce's realised price. Distance to the market for both contracted and non-

contracted farmers ranged from 0 to 45 kilometres. The furthest output markets include TFPM, MCC and Gauteng hospitals followed by Pick and Pay while at the same time farmers can sell their produce at the farm gate to locals and hawkers.

Farmers also acknowledged the fact that their produce is of inferior quality and quantity when compared to that from large-scale commercial farmers and this has also contributed to little or no participation in formal markets such as TFPM and Pick and Pay.

Lack of post-harvest storage facilities with regulated temperature was also cited as a hindrance to market access. This factor was common to both contracted farmers and non-contracted farmers. Of the 50 interviewed farmers, 83.3 % (40) of them acknowledged that they did not have storage rooms with cooling facilities. Some of the notable advantages of having one were noted by farmers, which include, among others, scheduling market deliveries properly, increasing produce shelf life, keeping produce fresh and targeting profitable markets. Only 27.1 % (13) acknowledged the less importance of storage with cooling facilities. This group consisted mainly of citrus and livestock farmers. Table below shows some of the advantages of having a storage room with cooling facilities as indicated by farmers.

**Table 5.1: Advantages of having cooling facilities**

Advantage	n	%
Scheduling market deliveries properly	4	8.3
Increasing produce shelf life	10	20.8
Keeping produce fresh	10	20.8
Increasing shelf life and keeping produce fresh	6	12.5
Targeting profitable markets	2	2
Scheduling properly market deliveries, targeting profitable markets properly and increasing produce shelf life	3	13
<b>Total</b>	<b>48</b>	<b>100 %</b>

## 5.2.2 Access to financial credit and inputs markets

Poor farmers from the region locally source draught power from rich farmers with tractors and ploughing implements and prices vary depending on relations. For WUFA farmers there is a proposed arrangement in which individual farmers can have access to collectively owned farm equipment. Farmers will be responsible for paying for the labour hours of the driver and fuel.

Equipment can only be hired to farmers when there is no work which requires that machinery or implement at the cooperative farm (WCP/Section 21). However, this has not yet come into force since the inception of WUFA in 2002. This has been largely due to inefficiencies of WUFA leadership.

Seeds and fertiliser are bought as far as 40 kilometres from the Winterveld and mostly this is done individually. For WUFA farmers, citrus tree seedlings are bought collectively using collective funds (proceeds of fruit sales) and donated funds. However, individual members have to buy the seedlings from WUFA at a subsidised price.

In some cases, farmers buy their vegetable seeds from Pick and Pay Mabopane, from which they establish their own nurseries and reduce the costs of buying seedling from established nurseries. In most cases, farmers use kraal manure as a substitute for expensive inorganic fertilisers and this is locally sourced from cattle farmers. Prices vary depending on farmers' relations.

Farmers showed high levels of reluctance when asked if they would ever use their assets (land and non-land assets) as collateral. This was evidenced from both contracted and non-contracted farmers. Most of them have never used their assets and/or title deeds as collateral citing fear of losing them if they default on loan repayments and high interest rates (12 %) offered by commercial banks. Those farmers with formal contractual arrangements acknowledged that they have never tried to use their contractual documents to access funding from finance houses.

In times of financial distress, most farmers (both contracted and non-contracted) acknowledged that they borrow from their relatives and neighbours at zero percent interest rate. Micro-finance schemes exist and these include, among others, stockvels and burial societies. For burial societies, benefits are only limited to financial assistance when a policy member or those who are covered by the burial policy are deceased. Stockvels are mainly limited to close-knit family members and most of the interviewed farmers stated that they prefer dealing with family members because of high levels of payback mainly enforced by social sanction and or pressure.

### 5.2.3 Access to technical and output price information

Cell-phone communication and personal networks convey most of the produce price information. Non-contracted farmers rely on personal networks for information on produce prices in the market. Only a few contracted farmers rely on the internet for produce price information. The table below shows the distribution of communication modes among contracted and non-contracted farmers.

**Table 5.2: Modes of communication regarding produce prices**

Type of farmers	Contracted farmers	Non-contracted farmers	Total
<b>Mode of communication</b>	n	n	N (%)
Cell-phone	25	10	35 (72.9 %)
Personal networks	4	7	11 (22.9 %)
Internet	2	0	2 (4.2 %)
<b>Total</b>	<b>31</b>	<b>17</b>	<b>48 (100 %)</b>

Most of this price information is got from either community member or relative in town, or the farmers did their own produce price research. In particular farmers acknowledged that the research is directed into how much other farmers are selling at rather than based on the cost structure of their production process. Also hawkers and agricultural extension agents provided produce price information to farmers. Table 5.3 below shows percentages of where produce price information is obtained. The percentage is particularly low from agricultural extension officers, mainly because DAFF agricultural extension agents are focused on improving the production capabilities of the farmer rather than his or her marketing capabilities.

**Table 5.3: Sources of information on production and marketing**

Type of farmer	Contracted	Non-contracted	Total
<b>Source of information</b>	n	n	N (%)
Relative in town	22	15	37 (71.1 %)
Own research	5	1	6 (12.5 %)
Hawkers	2	1	3 (6.3 %)
Agricultural extension agent	2	0	2 (4.2 %)
<b>Total</b>	<b>31</b>	<b>17</b>	<b>48 (100 %)</b>

Produce price information sources varied among contracted and non-contracted farmers depending on their literacy and availability of media conduits such as radio, television and



ordinary magazines. Table 5.4 below shows some of the sources of price information, with most poor households relying on the radio as their sole source of price information.

**Table 5.4: Sources of price information for both contracted and non-contracted farmers**

Type of farmer	Contracted	Non-contracted	Total
Source of price information	n	n	N (%)
TFPM, Radio, television & agricultural magazine	8	7	15 (31.3 %)
Radio & television	3	8	11 (22.9 %)
Radio, television & agricultural magazine	10	0	10 (20.8 %)
Radio	3	2	5 (10.4 %)
Don't have source	7	0	7(14.6 %)
<b>Total</b>	<b>31</b>	<b>17</b>	<b>48 (100 %)</b>

Access to technical information on agriculture was mainly dominated by assistance from DAFF extension officers who were reported to be visiting farmers on a fortnightly basis. Private organisations such MCC and the Citrus Growers' Association are also instrumental in provision of technical assistance to farmers. The table below shows sources of technical assistance among contracted and non-contracted farmers.

**Table 5.5: Sources of technical information for both contracted and non-contracted farmers**

Type of farmer	Contracted	Non-contracted	Total
Source of technical information	n	n	N (%)
DAFF extension officers	18	10	28 (58.3 %)
Private companies	1	0	1 (2.1 %)
Don't have source	12	7	19(39.6 %)
<b>Total</b>	<b>31</b>	<b>17</b>	<b>48 (100 %)</b>

Agricultural extension officers' frequency of farm visits was noted with a mode of once a fortnight commanding a frequency of 52.1 % (25). The remaining 39.6 % (19) of the interviewed farmers acknowledged that they have never received any form of extension assistance, either from the public or private sector. Citrus farmers acknowledged a lack of citrus extension services from the public sector. Mostly farmers rely on private expertise from MCC and CGA.

#### **5.2.4 Effects of contracting on accessing external resources (financial credit, technical and extension services)**

There was no significant difference in the access of external resources with respect to whether one is contracted or not. However, farmers in formal contracting with GSSC benefited from free training in food safety and hygiene. The same could have been experienced by farmers in contractual arrangements with MCC, but information is not properly conveyed to individual farmers by WUFA representatives. Nonetheless, some of the smallholder farmers who are not involved in contractual arrangements had even better access to external resources. This mainly depended on how socially networked the farmer is. Following farmers' career trajectories, most of them have been involved in activities other than farming and are still using such networks to access agricultural finance and technical production skills.

### **5.3 OWNERSHIP OF NON-LAND ASSETS AND THEIR EFFECTS ON CONTRACTING**

Analysis of farmers' career trajectories was done and most of them were once professionals in fields other than agriculture. Through accumulated savings from many years of working off-farm, some farmers managed to buy some of the capital equipment (tractor, ploughing equipment, irrigation equipment, etc.) needed to run a farm. Almost all interviewed farmers had access to a reliable motorised vehicle, although not all the farmers used their vehicles for farming purposes. Only 10.4 % (5) farmers have greenhouses fitted with micro-jet irrigation systems and they are all contracted to supply hospitals around Gauteng with fresh vegetables. Lack of cold storage rooms is prevalent in the region, with only WUFA member farmers having access to a collective storage with regulated temperature at the cooperative farm.

Contractors in many instances use ownership of irrigation as a farmer's selection criterion on the presumption that the farmer will be able to produce the required amount and quality, while having a cold storage room enables the farmer to consistently supply the agreed quantities while they are still fresh. This is particularly true with the contractual arrangement between Winterveld smallholder farmers and GSSC. However, most of the farmers do not have storage facilities with

regulated temperature. In many cases, farmers contracted to GSSC rely on the post-harvest handling facilities of TFPM from which they procure or outsource most of their vegetables.

For the Pick and Pay/Winterveld smallholder farmers arrangement, most farmers are not required to have a certain level of asset endowment. However, Pick and Pay drilled boreholes in the area. The whole idea behind this was to make sure that farmers have access to water which is one of the crucial elements in farming. With farmers having access to water all year round it implies that they are in a position to grow vegetables the whole year. The close proximity of Pick and Pay to the Winterveld region enables the farmers to transport vegetables to the outlet while they are still fresh. Therefore proximity substitutes for the need for a storage facility with regulated temperature. Through this, Pick and Pay would have greatly reduced its transaction costs while procuring fresh vegetables at a fairly low price.

Furthermore, most farmers in contractual arrangements are members of functioning farmers' organisations such as WUFA. Buyers prefer to deal with organised farmers in order for them to reduce transaction costs. This is particularly true for the MCC-WUFA and GSSC-WUFA contractual arrangements.

#### **5.4 MARKET PRICE RISK**

As noted in Chapter 2, output price risks manifest themselves in price fluctuations in different markets. Analysis of output price movements in different markets showed that farm gate prices for all produce were comparable to those offered by the hawkers to smallholder farmers in the Winterveld, as shown in Table 5.6. Pick and Pay offers the lowest prices while GSSC offers the best prices in all produce procured from Winterveld smallholder farmers. The latter can partly be explained by the use of inflation adjusted prices. There is a big difference in the prices offered by the buyers of the two orange varieties. Navels fetch twice as much revenue for farmers as compared to valencias because they are preferred to the latter in the fresh fruit markets.

Even though MCC offers the lowest prices, considerable volume of oranges are sold to them, as shown in Table 5.2. Most farmers do not have post-harvest storage facilities for their oranges so

they have to dispose of them while they are still marketable. Through this, MCC acts as a sink market for valencia oranges from Winterveld smallholder farmers.

Pick and Pay offers the lowest prices for all vegetables procured from Winterveld smallholder farmers but it buys considerable quantities from them. Comparably, it offers the best prices for navel oranges and it procures the highest volumes.

Although prices are relatively high from hawkers and at the farm gate, these outlets are not secure. Prices and amounts procured fluctuate, depending on the market forces prevailing at the time of transacting.

Locally produced high-value crops such as lettuce have a small market in the region. This could be partly explained by the availability of such high-value crops in local supermarkets and greengrocers at fairly low prices with considerably better quality.

**Table 5.6: Average produce price in different markets outlets rounded off to the nearest Rand for the season 2009/10**

Product	Market outlet					
	Hawkers	Farm gate	Pick and Pay	MCC	TFPM	GSSC (Hospitals)
Cabbage (head)	R4.00	R4.00	R3.00	-	-	R5.00
Onions (a bundle of 6 onions)	R5.00	R5.00	R3.00	-	-	R11.00
Spinach (a bundle of 30 leaves)	R5.00	R5.00	R2.00	-	-	R7.00
Lettuce (head)	-	R5.00	-	-	-	R9.00
Navels (7 kg bag)	R10.00	R11.00	R11.00	-	R8.00	-
valencia (7 kg bag)	-	-	-	R3.00	-	-
<b>Market coordination mechanism</b>	<b>spot market &amp; relational contracts</b>	<b>spot market &amp; relational contracts</b>	<b>informal contractual arrangement</b>	<b>formal contractual arrangement</b>	<b>spot market</b>	<b>formal contractual arrangement</b>

**Table 5.7: Average quantity of produce sold in different market outlets for the season 2009/10**

Product	Market outlet					
	Hawkers	Farm gate	Pick and Pay	MCC	TFPM	GSSC (Hospitals)
Cabbage (head)	3000	4100	5100	-	-	26800
Onions (a bundle of 6 onions)	2580	2080	190	-	-	5260
Spinach (a bundle of 30 leaves)	6960	9562	9180	-	-	10000
Lettuce (head)	-	60	-	-	-	2910
Navels (7 kg bag)	455	182	11551	-	2000	-
Valencia (7 kg bag)	-	-	-	20118	-	-
<b>Market coordination mechanism</b>	<b>spot market &amp; relational contracts</b>	<b>spot market &amp; relational contracts</b>	<b>informal contractual arrangement</b>	<b>formal contractual arrangement</b>	<b>spot market</b>	<b>formal contractual arrangement</b>

## 5.5 FARM HOUSEHOLD CHARACTERISTICS

Of the 50 smallholder farmers interviewed, 48 had valid information. Mean age was 56.1 years with a standard deviation of 13.64. On average, 2 family members help with farm labour. The table below shows some of the household characteristics. With the average age of farmers at 56.1 years and most of the farmers having started farming in their late 40s, this implies that farming is taken up as a towards or post retirement occupation.

**Table 5.8: Household dynamics of Winterveld smallholder farmers**

Character	n	%
Male headed households	33	68.8
Female headed households	15	31.3
Farmer residing on the farm	36	75
Farmer not residing on the farm	12	25
Children to take up farming in future	28	58.3
Children to take other careers other than agriculture	19	39.6

### 5.5.1 Overall monthly incomes

Of the population sample, 25 % (12) of the smallholder farmers in the Winterveld live on less than R3 000 per month. The majority, 31.3 % (15) live on less than R6 000, while 14.6 % (7) live on less than R9 000 and 29.1 % (14) live on more than R9 000 per month.

Smallholder farmers acknowledged that most of their income comes from non-agricultural sources. Of the interviewed farmers 31.3 % (15) acknowledged that their income comes from a pension, while 20.8 % (10) acknowledged that it comes from salaried jobs and 12.6 % (6) stated that it comes from welfare and remittances. On average, non-agricultural income sources combined contribute 80 % of the overall household monthly income, while agricultural sources combined contribute 20 %. Crop sales contribute most of the income from agricultural sources. 83.3 % (40) of the interviewed farmers acknowledged that most of their agricultural revenue comes from crop sales, while livestock sales only contributes 2.1 % (1) and mixed crop and livestock sales contributes 10.4 % (5).

### 5.5.2 Sources of income

Most smallholder farmers in the Winterveld region do not take farming as an opportunity available to them which can improve their economic welfare, as indicated in Table 5.9 a, b and c. Some non-agricultural income sources were top income contributors to the overall household monthly income. When asked to rank their income sources starting with the one that contributes the most income, farming scored badly, only coming first in the second income source and third in the third income source. Households who are entirely dependent on farming constitute the poorer households in the sample.

**Table 5.9: Sources of income for sampled farmers**  
**Panel a: First source of income**

Source of income	Frequency	Percentage
Pension	13	27.1
Wage labour	12	25.0
Own business	7	14.6
Old age/child grant	5	10.4
Remittance from children/relatives	5	10.4
Farming	5	10.4
Donations	1	2.1
<b>Total (n)</b>	<b>48</b>	<b>100</b>

### Panel b: Second source of income

Source of income	Frequency	Percentage
Farming	30	62.5
Wage labour	6	12.5
Pension	6	12.5
Remittance from children/relatives	3	10.4
Old age/child grant	1	2.1
Not applicable	2	4.2
<b>Total (n)</b>	<b>48</b>	<b>100</b>

### Panel c: Third source of income

Source of income	Frequency	Percentage
Not applicable	24	50.0
Remittance from children/relatives	10	20.8
Farming	9	18.8
Pension	4	8.3
Old age/child grant	1	2.1
<b>Total (n)</b>	<b>48</b>	<b>100</b>

## 5.6 EFFECTS OF CONTRACTING ON SMALLHOLDER FARMERS' FARM INCOMES

Individual calculations of gross farm income for some of the contracted farmers were high with some in excess of R200 000 annually while non-contracted farmers had very low gross farm incomes in some cases lower than R2 000 annually. Average annual gross income for contracted farmers was calculated at R19 969.58 while for non-contracted farmers it was R5 459.32. The t-test showed a significant difference between the average annual gross incomes. There was a 95% confidence that average annual gross income for contracted farmers is higher than the non-contracted farmers. The table below shows the average gross farm incomes for both contracted and non-contracted farmers.

**Table 5.10: Average gross farm incomes for both contracted and non-contracted farmers**

Descriptive Statistic	Contracted farmers	Non-contracted farmers
Mean	19 969.58	5 459.32
Median	2 067.00	1 200.00
Maximum	209 958.10	26 500.00
Minimum	96.00	0.00
Standard deviation	46 846.15	8 556.01
CV= (standard deviation/mean)	2.3474	1.5673
Critical value at $-t \alpha=0.05, 46$	-2.021	
t statistic	0.31	

Although average annual gross income for contracted farmers was higher than that of non-contracted farmers, these results are inconclusive since farm incomes vary depending on the management skills and type of enterprise mix the farm has.

Formal contracting like the one between smallholder farmers and GSSC has generally improved the farmers' income flow. Descriptive statistics without the contractual arrangement between farmers and GSSC and between WUFA and MCC showed very little difference from non-contracted farmers. The table below shows gross farm incomes for both contracted and non-contracted farmers, excluding the incomes from GSSC-Winterveld farmers' contractual arrangement and WUFA-MCC contractual arrangement.

**Table 5.11: Average gross farm incomes for farmers contracted to type 2 contract<sup>22</sup> compared to non-contracted farmers.**

Descriptive Statistic	Contracted farmers	Non-contracted farmers
Mean	3 507.37	5 459.32
Median	1 332.00	1 200.00
Maximum	17 901.00	26 500.00
Minimum	96.00	0.00
Standard deviation	4 581.00	8 556.01
CV= (standard deviation/mean)	1.306	1.5672
Critical value at $-t_{\alpha=0.05, 46}$	-2.021	
t statistic	-0.43	

This comparison indicates that most of the smallholder farmers contracted to type 2 contract are not better off with their contractual arrangements. The t-test showed a significant difference at 95% confidence that average gross annual incomes for non-contracted is greater than the contracted farmers to type 2 contract. Although the average gross farm income for contracted farmers is lower than for the non-contracted farmers it has a lower variance. This implies that their average gross incomes are more stable than those of non-contracted farmers.

<sup>22</sup> See Table 4.1. Type 2 (Marketing specification contract: Leafy vegetables and Navels)



## 5.7 EXISTING LAND TENURE AND LAND USE

A freehold land tenure system exists, with farmers owning plots of either 5 morgen or 10 morgen. 31.3 % (15) 5 morgen holders and 66.7 % (32) 10 morgen holders were interviewed. Land leasing does exist with only 4.2 % (2) leasing land from land owners. Most farmers acknowledged that land was inherited from their parents and this commands 62.5 % (30) while the remaining 37.5 % (18) bought the land using their own savings. Land owners hold title deeds to the land they own and they are free to sell or lease it.

Land is not a constraint for farming in the Winterveld region. Land use patterns showed that very little land is devoted to vegetable and crop farming, as shown in Table 5.2 below. On average, smallholder farmers plant less than an acre of vegetables. However, for valencia oranges the region's average is above one hectare while for navels it is just above half a hectare. Most the land is left unproductive, with an average of 4.25 hectares. For livestock farmers, especially cattle farmers, animals are left roaming around in the region. Although there is private land ownership, cattle farmers in most cases utilise most of the fallow land. In some cases, cattle cause extensive damage to crops in other farmers' plots. In such cases, cattle owners are liable for the damage caused and they are expected to compensate the crop farmers.

**Table 5.12: Land use patterns in the Winterveld region for season 2009/2010**

Crop/enterprise	Average land allocation (ha)
Cabbages	0.11(0.29)
Onions	0.04(0.15)
Spinach	0.13(0.20)
Lettuce	0.04(0.23)
Valencias	1.43(3.92)
Navels	0.60(1.26)
Fallow land	4.25(2.92)

Figures in parentheses are standard deviations

## 5.8 PRODUCTION CONSTRAINTS FACED BY WINTERVELD SMALLHOLDER FARMERS

Smallholder farmers in the Winterveld acknowledged shortage of water as a major problem hindering their production capabilities, with a frequency of 20.8 % (10), followed by stray

animals and veld fires with a frequency of 10.4 % (5). All farm households have access to municipal water, which they consider to be expensive. 35.4 % (17) of the interviewed farmers use borehole water for their domestic and agricultural purposes while 33.3 % (16) use municipal water and the remaining 27.1 % (13) use both municipal and borehole water. Some other problems encountered by Winterveld smallholder farmers include theft, with a frequency of 10.4 % (5), pests and disease, with a frequency of 6.3 % (3) and high costs of agricultural inputs, with a frequency of 6.3 % (3).

## **5.9 SMALLHOLDER FARMERS' ASPIRATIONS IN THE WINTERVELD REGION**

Smallholder farmers are keen to participate in the formal markets but they would like to see the removal or subsidisation of market and agent fees so that they can effectively utilise already existing market infrastructure such as TFPM. This will complement their incomes from contractual arrangements and at the same time help them to minimise their marketing risks.

Most individual WUFA farmers are disgruntled by the way their organisation is being run. Lack of transparency has been cited by most farmers as the root cause of dissatisfaction and this has led to poor performance of the contractual arrangement. Winterveld citrus farmers stated that they would like to participate in fruit export markets, particularly oranges, but that they need certain certifications which are costly for them.

Furthermore, WUFA farmers would like a trading situation in which they get paid for orange by-products. Currently MCC is fully entitled to all the proceeds from oil and crushed orange pills, and farmers are only paid for internal quality and sucrose in their oranges.

## **5.10 SUMMARY**

Ownership of non-land assets were sources of pre-selection bias towards who should participate in contractual arrangements. However, there is no positive relationship between owning non-land assets and contracting. Some contractual arrangements are well designed to minimise farmers' price risk, but due to diversity of contractual arrangements some of them expose farmers to market price risk. There is a significant difference in farm gross incomes with respect to whether

a farmer is contracted or not, but such differences are inconclusive due to the different levels of skills, management and enterprise mix a particular farm has. In fact, although the average gross farm income for contracted farmers was high, there were incidences where non-contracted farmers had high gross farm incomes compared to contracted farmers. In some cases, contracting enables farmers to access external resources, but once again, having access to external resources also depends on farmers' innovativeness, social networks and information available to them.

Although contract farming has gained a lot of attention for its potential in including smallholder farmers in formal markets, in some cases it acts as an exclusionary factor. This is particularly true when farmers are pre-selected on the basis of whether one has got a certain level of non-land asset endowment.

Other alternative markets have to be explored for improved market access for smallholder farmers. Hawkers, for example, offer some of the best prices but there is no marketing infrastructure and legislative framework to support them. Through developing this, smallholder farmers will be capable of spreading their market price risks and at the same time complement their much needed farm incomes since in most cases hawkers buy produce with cash.

Mainly poor and pensioner households rely on farming for food security and income. Most smallholder farmers in the Winterveld do not see agriculture as a means available to them which can improve their economic welfare. This is seen through high percentages of income from non-agricultural activities, which constitute 80 % of the farm incomes.

## CHAPTER 6

### CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 SUMMARY

The purpose of this study was to show how contractual arrangements affect smallholder farmers and how contractual arrangements as forms of institutional arrangements can best be used to mainstream smallholder farmers into formal agricultural markets. This primary objective was analysed through various specific objectives using primary data collected from the Winterveld region. A case study approach was adopted with the use of structured and semi-structured questionnaires. Most of the data were qualitative in nature and this study did not try to fit in any mathematical or econometric model due to lack of sufficient quantitative data. Primary data collection on contractual arrangements in the Winterveld region had some shortcomings, which include identity preservation and unavailability of contractual documents for a systematic analysis of contractual arrangements. To improve data validity, the technique of triangulation was employed for the three main data sources (smallholder farmers, agribusiness firms and key informants).

Firstly, all contractual arrangements in the Winterveld region were identified and characterised, based on a general description of the contracting firm and contracted farmers, nature of contract, contract negotiation, price discovery and payment structure, responsibilities of contracting firm and contracted farmers, contract enforcement and conflict resolution and the opportunities and threats associated with the contract. Identified contractual arrangements varied from implicit to explicit contracting. As alluded to earlier on in this thesis, contractual arrangements are diverse and governance of contractual arrangements is designed to fit certain trading situations within cultural, social and business context. Contractual arrangements can be influenced by the form and inherent characteristics of the product traded. This implies that there is no one size fits all solution for an institutional arrangement that can foster increased formal market participation by smallholder farmers. In other words, contracting is not a panacea for improving formal market access for smallholder farmers. Other marketing channels such as low income consumer markets also have to be explored if market access is to be increased for smallholder farmers.

Identified contractual arrangements had different motivations, which include improving the contracting company's image or AgriBEE standing, as well as political motivations. The contractual arrangements between WUFA farmers and Pick and Pay as well as MCC were mainly motivated by a quest of the contracting company to improve their public image and at the same time improve their standing on the AgriBEE scorecard. On the other hand, the contractual arrangement between WUFA farmers and GSSC was highly politically motivated. Contractual arrangements presented smallholder farmers with opportunities as well as challenges. For instance, smallholder farmers gained from having stable markets and having access to improved technology. However, some posed challenges to smallholder farmers, including meeting specified growing and quality standards and quantity requirements. Overall, contractual arrangements in the region suffered from incompleteness and in many cases led to poor performance.

Although contractual arrangements as a form of institutional arrangement that can be used to foster increased formal market participation by smallholder farmers, it is not the only available option. Other marketing channels available should be explored for improved market participation by smallholder farmers.

Considering the cultural diversity and low income urban consumers in the potential market (Soshanguve and Mabopane high density suburbs) for Winterveld smallholder farmers, exploring such urban supply chains will certainly improve smallholder participation. Smallholder farmers are numerous and they produce heterogeneous products, which might present an opportunity for them to participate effectively in these urban supply chains, which are characterised by low incomes and cultural diversity.

Developing a public framework for contracting might prove beneficial both to the farmers and contractors. Certainly in an environment without public policy on contracting, abusive power relations can develop that lead to unfair business practices. However, it is also clear that caution has to be taken when using public funds to make certain projects seem to work.

Although the South African government brought a noble idea of contracting smallholder farmers through the GSSC, this contractual arrangement needs to be reviewed since it is not developing farmers, but rather, it is developing farmers cum middlemen. The whole purpose of

empowerment is defeated, since it is just opening more markets for the commercial agricultural sector. Statistics show that mostly FPM are supplied by large-scale commercial farmers because they are capable of supplying large volumes of high quality produce and capable of paying the market and agent fees. All smallholder farmers in the Winterveld contracted by GSSC procure most of their agricultural produce from the TFPM market before delivering it to the designated hospitals in Gauteng.

Development of long-term relationships with hawkers proves to be beneficial to smallholder farmers in terms of market information conveyance. Hawkers give farmers much needed information about consumer preferences (like the quality and form of product) and this enables farmers to produce accordingly. Strengthening such chains will result in improved market access by smallholder farmers.

Lack of production capacity by many smallholder farmers, which is driven by lack of credit lines, information asymmetry and high transaction costs, can be improved by government intervention. The prevalence of high transaction costs when dealing with smallholder farmers can be solved by introducing smart subsidies like farmer training, particularly in improving their marketing capabilities.

Finally, the conclusions of this study were based on the hypotheses highlighted in Chapter 1.

## **6.2 CONCLUSIONS**

This section highlights some of the conclusions that were derived from the study. Conclusions were made as per the study's hypotheses. Also some insights from farmers' ownership of non-land assets were discussed.

### **6.2.1 Hypothesis 1: Contracting lowers smallholder farmers' market price risk and therefore improves their market access**

Market price risk as defined earlier on in Chapter 2 manifests itself in price volatilities. Well designed contractual arrangements like the Public Tenders contract lower price risk for farmers

(both upside and downside risk). This was achieved through including the inflation factor for fixed prices contracts. However not all contractors are willing to absorb the price risk alone. They would rather like a situation in which produce price liability remains with the farmer. This means that farmers will only get paid after the contractor sells some of the processed raw material. This kind of arrangement leaves the farmer very vulnerable to price fluctuations in the market and at the same time leaves the farmer at the mercy of the contractor. This is particularly true for the MCC/Winterveld smallholder farmers' valencias contract.

Market price risk can also be minimised by developing a public framework for agricultural contracting or an agricultural contracting board. Copying from developed states such as the USA, a board might be formed and its main function would include the creation of reserve contractual funds for each contract, thus dissolving power imbalances which might lead to unfair business practices and guarding against contractual breaching.

Creating a contract reserve fund for each contract would certainly guard against price volatility. This could be achieved by dedicating a certain percentage of the selling price of the produce to a fund on the part of the farmers while for contractors the same should apply to the final selling price of the product. In actual fact, this will act as pseudo insurance and is a real opportunity for both the farmers and the contractors, considering high insurance premiums offered by agricultural insurance companies. When prices of the product fall in the market, the difference from what was stipulated in the contract will be covered by the fund. At the end of the contractual arrangement, the fund can be dissolved and proceeds shared proportionally to contributions made. This board in the mean time might piggyback on National Agricultural Marketing Council (NAMC) facilities in the country. However, there is one drawback with this arrangement, in that it is best suited to long-term contractual arrangements, such as plantation crops and out-grower schemes. For short-term contractual arrangements, establishing contract reserve funds might be costly. However, the board might be crucial in monitoring unfair business practice and power relations.

### **6.2.2 Hypothesis 2: Contracting improves smallholder farmers' farm incomes**

On average, agricultural income only contributes 20 % of the total monthly household income in the Winterveld region. Most farmers do not see agriculture as an activity that can improve their general incomes. Most farmers are engaged in off-farm activities which contribute on average 80 % of the total monthly household incomes. With these complementing each other (farm and off-farm income), some farmers are capable of investing in farm capital equipment.

There is a significant difference between contracted and non-contracted farmers' farm income in some of the identified contractual arrangements. Contracting particularly increase farmers' incomes in the GSSC/Winterveld smallholder farmers' contractual arrangement, but for the rest of the contractual arrangements there is no significant difference between whether the farmer is contracted or not. Nonetheless it is important to note that the significant increase in farm incomes does not tally well with the amount of public finances that have been poured into the project by the government to make the contractual arrangement work. In particular, these farmers gained from a government grant which was used to erect greenhouses with micro-jet irrigation systems.

### **6.2.3 Hypothesis 3: Contracting improves smallholder farmers' capacity to access external resources (financial credit, technical and extension services)**

Access to external resources in the study area did not show significant differences in whether the farmer is contracted or not, but depended heavily on how socially networked the farmer is. Most of the successful farmers were once professionals in fields other than agriculture and they are still using those networks of friends and relatives to access external resources required for their farms.

All contracted farmers stated that they did not know that they could use their contractual arrangements to access financial credit. This information asymmetry between agricultural financiers and farmers could be removed by developing some communication networks with farmers. Agricultural financiers can use the existing public infrastructure such as the DAFF to let farmers know about different financing programmes they have.



In most cases, contractors are willing to fund special expertise and skills training to contracted farmers which will enable them to meet the required food quality and safety standards, particularly as these skills will not be available in the public frameworks. This is true with the MCC/WUFA smallholder farmers' contractual arrangement, where expertise on citrus growing is not available on the public platform. Through this, farmers got substantial production information which has improved their production capabilities.

Collective action also improves farmer's access to external resource. This is quite evident from WUFA farmers, although most of the resources are channelled towards the operations of WCP/Section 21. Strengthening the organisation will result in more streams of benefits like acquiring collective food quality and safety certificates. This will enable farmers to participate in other markets which they were not able to because of lack of certification. Collective certification will certainly lower the costs of getting certification for individual farmers.

DAFF extension officers are doing a sterling job in capacitating the farmers in improving their production capabilities. However, they should extend the support further, to improve farmers' marketing capabilities. This might be through timely supplying the farmers with output prices in different markets. This could be done cost effectively through the use of short message services (sms) since almost every farmer interviewed has access to a cell-phone in one way or another.

#### **6.2.4 Ownership of non-land assets and their influence in contracting.**

In the study, ownership of non-land assets has a great influence on who can participate in contractual arrangements. However, being a member of a farmers' organisation plays a crucial role in whether a farmer can be selected to participate in contractual arrangements. In most cases, farmers buy certain non-land assets in order to meet the production requirements outlined in the contract or stipulated by the contractor. Whether those assets were financed from equity or credit arrangements, some of them will have a certain degree of fixity. This same scenario applies to the contractor. In terms of contractual failure, both partners may face substantial financial loss. With a public framework on contracting in force, such losses could be minimised.

Most smallholder farmers in the Winterveld region acknowledged that they are not willing to use their already acquired non-land assets as collateral in order to access financial credit. They cited high interest rates and fear of losing their assets when they default in payments as the major reasons why they do not want to borrow from commercial banks. Through subsidising agricultural finance for smallholder farmers they would be given the potential for them to grow from subsistence to commercially oriented agriculture.

### **6.3 AREAS OF FURTHER RESEARCH**

Firstly, there is a need to develop a quantitative approach to this study which will add rigour. However, one drawback of any quantitative study will be lack of enough quantitative data, because most farmers in the region do not keep records of their farm transactions. This will make it difficult to quantify some of the variables.

Secondly, studies on the policy environment in which agricultural contracting in South Africa takes place have to be assessed. This might be the partial answer to why some of the contractors engage in contractual arrangements with smallholder farmers. Is it because they want to be AgriBEE compliant? What is the real motive behind contracting smallholder farmers instead of large-scale commercial farmers? These questions have to be answered with regard to the policy environment in which contracting takes place.

Lastly, further research should be dedicated to urban food supply chains, particularly for the low income urban consumers, and to exploring how smallholder farmers can participate in these chains. Such chains are characterised by cultural diversity and low income consumers, while on the other hand smallholder farmers have heterogeneous products which might be well suited to the cultural and income needs of these consumers. Exploration of these chains would undoubtedly offer alternative markets for smallholder farmers which will be fairly easy to enter and participate in effectively.