Staff Paper

Small Farmer Organizations and Transformed Markets in Southern Africa

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Table of contents

Part 1: South Africa: Synthesis and Four Case Studies

Small Farmer Organizations and Transformed Markets in South Africa: Executive Summary and Policy Brief

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1. Nature of the Problem

South Africa's agricultural producers face a rapidly changing environment. A highly consolidated supermarket sector (the two lead chains represent 80% of sales) now accounts for nearly 60% of the formal food retail market, one of the highest shares of any developing country. The government's economic development policy is amongst the most radical in the world. Its land reform policy aims to ensure a grant-based transfer of 30% of all agricultural land from white farmers to black South Africans over a 15-year period (2001-2016). The 2004 Broad-Based Black Economic Empowerment (BBBEE) Act scores firms and farms on the degree to which they are owned by or source from those disadvantaged under apartheid. The latter are, according to current government guidelines, expected to represent 50% of supplies for all firms by 2007.

This new environment has created new market opportunities in the form of potentially more profitable and reliable long term contracts. It also created new challenges. Supermarkets for example use the same high standards for food quality and safety as those used in Europe. The increase in scale and cut-throat price competition at the retail end stimulates consolidation and industrialization in the processing sector. Supermarkets, food service firms and processors alike have to continuously increase the efficiency of their procurement system. Limited in their resources and representing high transaction cost options for these buyers, the rural poor are in a weak position to overcome these challenges, thus making their inclusion in these new market opportunities less likely.

Given this new market reality, our strategic research question here is: *what business models can assist South Africa's rural poor (smallholder farmers, farm workers) in successfully accessing and competing in dynamic food markets?* A detailed understanding of these successful business models will provide powerful guidance to development programs aimed at replicating the success stories on a larger scale.

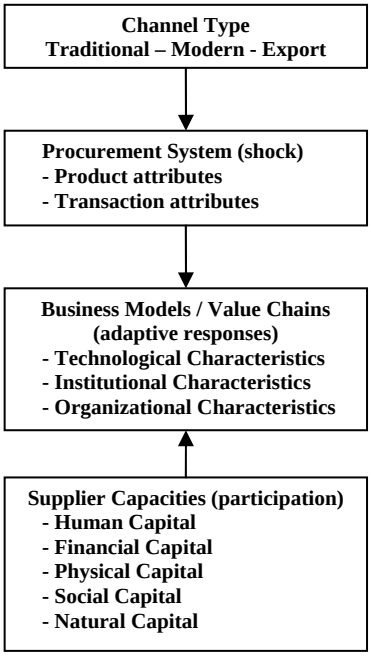
2. Conceptual Approach

The integration of the rural poor in modern food supply chains can be analyzed from a static and a dynamic perspective.

The static perspective looks at the initial access (Figure 1). From a static perspective, the nature of the business model (supply chain architecture) is the result of the product and transaction attributes of the specific channel in question (modern vs. traditional) on the one hand, and the capacities of the agricultural producers on the other hand. Within a given business model, we distinguished three key dimensions: technology, institution, organization.

A dynamic perspective implies models with positive or negative feedback loops. The sustainability of business models, and beyond that, the upgrading of business models, is here modeled as the outcome of a positive feedback loop from performance (customer value creation) to governance structure (contract) to profits to upgrading (profit reinvestment) and back to performance.

Figure 1



3. Methodology and Data

The methodological approach chosen is multiple explanatory case-study analysis. Critical for the internal validation of the findings is to have multiple sources of evidence (triangulation) and hence partially overlapping, semi-structured question sets were used to interview a wide set of key informants (farmers, community leaders, NGOs, government officials, researchers, retailers, processors, and so on). In order to capture the dynamics of the business model we included questions that allowed an analysis of the model's structural change over time.

The analysis is based on four detailed case-studies of farmer groups who have been successful (to a varying degree) in linking up with supermarkets and other food industry firms in South Africa. These four cases reflect *three basic organizational formats* in which the rural poor are integrated in modern food supply chains: (1) farmer groups, where each farmer has his/her own

land; (2) community land farming, where the farm land is fully owned by a community; and (3) equity share schemes, where farm workers without land have become shareholders in commercial farms.

Type 1: Farmer Groups

Fort Hare Farmers Group
The Fort Hare Farmers Group is an informal group of about 40 smallholder commercial farmers in the former Ciskei homeland (today part of the Eastern Cape Province). These farmers have relatively good access to fertile, irrigated land (owned and rented). Assisted by a development project (the Partnerships for Food Industry Development project), the farmers have been marketing fresh produce (butternut, pumpkin, squash) to Pick 'n Pay supermarkets, South Africa's second largest supermarket chain, since 2003.

Type 2: Community Land Farming

Haarlem and Ericaville Honeybush Growers
The Haarlem and Ericaville honeybush growers are two distinct groups producing green honeybush under contract for local processors. Honeybush is a tea-like herb with great domestic and export market potential. Both grower groups are located in the eastern part of the Western Cape Province, started their honeybush production in 2001 and are supported by the same NGO (ASNAPP). The Haarlem group is a trust which consists of 40 individual members, half of which are individually managing 1ha of honeybush on community-owned land. The Ericaville group is a trust with 85 families as beneficiaries which bought 40ha of farm land with government grants to establish a community-owned and -managed commercial honeybush plantation.

Type 3: Equity Share Schemes

Lutouw Estate Ltd
Lutouw Estate is a 300ha wine-grape farm established on virgin land in 2000 in which 22 farm workers, through a trust, have a 40% share. Experienced white commercial farmers own most of the remaining shares. The farm initially produced vegetables to have cash inflow during the first three years when grape vines were getting established. Over the last two years, the farm focused solely on grape production. The grapes, now produced under long-term contracts, proved to be of top quality and were sold at premium prices to various wine cellars in the Western Cape.

Bouwland Landgoed Ltd
Bouwland is a 56ha vineyard in which a trust with 60 members, mostly farm workers, has a 74% equity share. The remaining share is owned by an internationally renowned vineyard. Bouwland was established in 2002 when an existing vineyard was bought. The sale included land and labels and hence Bouwland captures a major part of the value chain, selling wine under its own label via agents to supermarket chains in South Africa and Europe.

4. Key Findings

Social vs. Economic Development
Social and economic development does not always go hand-in-hand. The Lutouw case for example is a remarkable economic success as measured by a 200% increase in the market value of the farm in just five years (through continued investments). At the same time however, the rural workers have only in a limited fashion increased their educational level or job responsibility and their housing provisions are sub-standard. However, as the strength of the farm's cash flow grows it will increasingly pay dividends to the worker trust which can then be invested in social development. Had the farm invested more heavily in social development, it might have failed financially and gone out of business.

Knowledge Integration
Knowledge integration and transfer has been a key determinant for the success (or lack thereof) of the business models in the four case-studies. In the Lutouw case, the role of a large-scale commercial farmer (with extensive experience in both production economics and marketing negotiation) as the mentor is the single most critical element for its economic success. In the Bouwland case, focused as it is on more value-adding, a larger and more varied group of mentors was instrumental in its successful start. In the Fort Hare case, the lack of an experienced and well-performing farm manager was the single most critical element in its failure to achieve its otherwise great marketing potential. The case-studies show that efficient and effective knowledge transfer requires careful partner selection. Given South Africa's current policy environment, which creates strong incentives for existing businesses to align with resource poor farmers, such outside mentorship can more readily be found.

Imperative of Concurrencies
Failed business models come in many forms, while successful business models have the common trait that they have addressed all critical issues simultaneously. The Fort Hare case for example illustrates how a string of failures (e.g., unreliable access to seedlings, tractors, transportation) has stood in the way of the development of an effective market link between a group of capable farmers and a supermarket willing to buy everything these farmers produced (as long as standards are met). Each of these failures is critical and only a simultaneous addressing of all can lead to success.

Specialized Business Units
Some of the more remarkable successes in the case-studies are related to the creation of small business units within the overall business model. These business units not only provide key services within the project, they are successful businesses in their own right. In the honeybush case, a seedling nursery that was set up as a separate business has a higher turnover than the honeybush plantations themselves. The Lutouw case's cost centre approach, whereby the farm is broken down into units as small as a single tractor, not only led to more efficient resource use and hence profitability, it also created opportunities for the rural poor to build their managerial capacities.

Relationship Management
Beyond the contract (the "sale"), relationship management is key in modern, dynamic supply chains. The four case studies in this study indicated that finding markets (demand) is not the main challenge. In the Lutouw, honeybush and Fort Hare cases, buyers were willing to buy all that producers can supply, indicating no upper limit. The critical element is it the continuous nurturing of the relationship with the buyer once established (long-term dynamic process). In the Fort Hare case, lack of communication by farm managers and little demonstration of tackling supply problems head-on stood in the way of developing a strong relationship with the supermarket chain. In the case of Lutouw, the mentoring presence of an experienced marketing manager was a key determinant of the long-term contracts obtained by the farm.

Degrees of Collective Action
As in other case-studies, the four cases here indicate that group formation is a necessary but not a sufficient condition. Usually the additional conditions refer to the various capacities required of the group of farmers. Another important aspect is the nature of the group structure itself. More specifically the degree to which the group acts as a collective unit has an impact on performance. This is well illustrated in the honeybush case. At one extreme, the Haarlem honeybusch growers are each responsible for 1ha and act very individually with clear lines of responsibility and incentive but with little group effort in either production or marketing, partially annihilating the group effect. At the other extreme, the Ericaville honeybush growers conduct every aspect of the farm management as a group. This has the advantage that they act as one larger supplier but the important disadvantage that there is little entrepreneurial drive.

Upgrading Dynamics
Upgrading dynamics appeared to be generally linked to good financial, operational and strategic management and continuous investment. With respect to investment in upgrading technology there are no half-way solutions. In the Lutouw case the farm immediately made investments whenever needed (e.g., land development, tractors, cold storage). In contrast, the Fort Hare farmers did not make sufficient investments resulting in a dependency on others for key physical capital such as tractors, pack sheds and vehicles. As a result, reliable supply chains between farmer and supermarkets did not develop.

5. Implications

The general implication is that the rise of modern food supply chains with demanding quality and safety standards fuels the need for the development of new standards for development programs ('Good Intervention Practices'). The following five implications for development intervention strategies follow from the above findings.

Take a Value Chain Level Approach
The success of an economic organization depends not only on the quality of the final product and the production process, but also depends critically on how it is embedded in its supply chain. The logical conclusion is that the complete supply chain has to be designed simultaneously. Every element of the value chain (and hence each key success factor) has to be addressed: funding, knowledge, communication, transport, and so on. This implies that a project must start from a

detailed understanding of the product and transaction requirements of the buyer (market) being targeted. Each and every resource shortage of the farmer group must be addressed right from the start which implies the need to bring each required but missing piece of expertise into the business model through a multiple-party partnership (public, private and NGO organizations). A related and equally critical aspect here is to provide complete funding so that threshold investment levels can be reached. Partial funding not only represents a waste of funds and failure of the project, it will also discourage farmers trying to link up with dynamic markets through other projects at a later stage.

Take the Long Term, Dynamic View

In a dynamic environment, adaptability is the ultimate core capability. Essential in this is to make knowledge a focus point as it is needed for the upgrading dynamic (shift in mindset to that of an entrepreneur). Since all the critical elements must be in place from the start, and the farmers do not have (all) the knowledge from the start, knowledge must in the first phase be brought in. Then a mechanism must be designed to transfer this knowledge from the contracted source to the resource poor farmer. With the transfer of knowledge comes a shift in mindset to where the smallholder farmers group will actively look for ways to upgrade their operations from within, gaining new knowledge (learning).

Focus on the Cash Flow Foundation

A business model aimed at assisting a small farmer organization to link up with dynamic markets has to carefully walk the tightrope between economic and social development. Profit generation and re-investment in the business model should get priority as the project's sustainability (through constant upgrading) is threatened otherwise. However, from the start and increasingly over time, there should also be a focus on the social aspects of the project (expendable income, education, job level, housing, health services) because in the absence of such improvements the project's beneficiaries will get discouraged and loose interest. The competing cash needs of poor rural households as a consumptive unit (living cost) and a productive unit (working capital) implies the need for a careful cash flow analysis from the very start of the project.

Use a Modular Design

Market development projects aimed at poor rural household should be designed as a set of cost centers in a coordinated structure. Such a modular design has at least two important advantages. First, because these modules create specialized lower-level management positions with clear incentive structures they stimulate highly efficient resource use and lead to faster income growth and learning. Second, the relatively independent and specialized nature of strategic business units stimulates cluster formation. For example, a tractor set up as a separate business unit seeking to maximize its capacity use will provide a resource not just for the initial project in whose context it was established, it will also create an important resource for other farming activities in the area.

Develop a Business Plan

All the above should be part of a detailed business plan, the development of which is a condition sine qua non for the success of a new business. First, the development of a business plan forces the project designer to take a holistic view. Second, it puts down a benchmark for future

performance analysis. Regular performance analysis (at least quarterly) is an important quality control and course correction tool. Third, the business plan should from the start indicate how donor assistance will be phased out over time without eroding the upgrading dynamic for which it was the catalyst. Fourth, the business plan and subsequent performance reports provide the documentation needed to develop a detailed understanding of successful business models. Donor-funded development programs should see the latter not as a specific solution to an individual problem, but rather as a public good aimed at model replication (up-scaling).

Small Farmer Organizations and Transformed Markets in South Africa: Synthesis Paper

October 2005

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1. Introduction

There are many interesting illustrations of the strong economic impact of commercial farmers in Southern Africa. For example, over just the last five years, tobacco production in Zimbabwe dropped dramatically from 240 to 60 million while at the same time in Zambia, Malawi and Mozambique tobacco production increased to record highs and spurred the development of tobacco processing infrastructure (The Economist 2004). The main driving force behind this change are the hundreds of (white) commercial farmers who lost their farms due to Zimbabwe's radical land policy but found facilitating governments in neighboring countries. Using the case of South Africa, this paper addresses the question of how commercial farmers, as a key economic resource, can play a key role in new business models aimed at allowing the rural poor to become benefiting participants in modern marketing channels. More specifically, our research question here is: are business models driven by commercial farmers more successful than business models driven by NGOs in terms of integrating the rural poor in modern dynamic food supply chains? South Africa represents an interesting case to study the impact of commercial farmers on the rural poor because of its unique policy environment. This policy environment hast two key components which are influencing, in opposing ways, the involvement of the rural poor in South Africa's agri-food system.

The first policy strategy is one of trade and market liberalization. This policy, in combination with urbanization and rising income trends, led to a concentration in the food retail sector in which supermarket chains have become the supply channel captains (Weatherspoon and Reardon 2003, D'Haese and Van Huylenbroeck 2005). As they grew, supermarket chains developed and implemented increasingly controlled procurement systems. The focus on control implied that upstream firms and farms in the agri-food system also needed control over their activities. The ability to control quality and quantity of output is directly related to the capacities of the farmers. Experienced and resource-rich white commercial farmers are likely to thrive, while emerging, resource-poor black farmers or farm workers are unlikely to enter and/or remain as shareholders in these new dynamic markets.

The second policy strategy is one of market restriction and selective resource support. Two key policies in this context are a land reform policy and an economic empowerment policy. South Africa's land reform policy aims to ensure a grant-based transfer of 30% of all agricultural land from white farmers to black South Africans (Previously Disadvantaged Groups or PDGs) over a

15-year period (2001-2016). The 2004 Broad-Based Black Economic Empowerment (BBBEE) Act scores firms and farms on the degree to which they are owned by or source from those disadvantaged under apartheid. The latter are, according to current government guidelines, expected to represent 50% of supplies for all firms by 2007.

In this radical new policy environment, two response strategies have emerged regarding the integration of the rural poor in dynamic modern supply chains. In commercial agriculture areas, new business models emerged in which commercial white farmers hold a significant equity stake. In smallholder production zones, new business models emerged which are mainly driven by NGO-type of assistance programs that do not involve commercial farmers.

Socially successful models with commercial farmer involvement are not self-evident. De Lange et al. (2004) pointed to the critical role of social dynamics, more specifically the behavior and capacity of PDGs needed to overcome mistrust of commercial farmers in mentorship (skills transfer) by the latter in equity schemes. The study indicated that social capital may even be more important than access to financial capital and physical assets. Weatherspoon et al. (1997) furthermore indicated that the entry of PDGs after the end of Apartheid in one of South Africa's main commercial farmer sub-sectors, the rapidly expanding wine industry, has been an uphill battle from the start.

This paper is structured as follows. In the next section we briefly discuss the conceptual approach we used. Section three briefly presents the four cases on which our analysis is based. Section four analyzes the relationship between the presence of commercial farmers and the structure of the business model. Section five analyzes the relationship between the presence of commercial farmers and the economic and social performance of the business model. Finally, section six concludes and presents some implications for development programs.

2. Conceptual Framework

Our analysis of business models which integrate the rural poor in modern food supply chains is here guided by the analytical frameworks presented in figure 1 (static perspective) and figure 2 (dynamic perspective).

The static perspective looks at the initial access. From a static perspective, the nature of the business model (supply chain architecture) is the result of the product and transaction attributes of the specific channel in question (modern vs. traditional) on the one hand, and the capacities of the agricultural producers on the other hand. Within a given business model, we distinguished three key dimensions: technology, institution, organization.

The dynamic perspective implies models with positive or negative feedback loops. The sustainability of business models, and beyond that, the upgrading of business models, is here modeled as the outcome of a positive feedback loop from performance (customer value creation) to governance structure (contract) to profits to upgrading (profit reinvestment) and back to performance.

Combining the static and dynamic perspectives, the hypothesis we explore here has two components. First, the involvement of commercial farmers is hypothesized to greatly improve access to human, financial, physical and social capital for smallholder farmers and farm workers and thus lead to business models with different technological, institutional and organizational characteristics. Second, models with a higher degree of commercial farmer involvement are hypothesized to display a stronger upgrading dynamic.

Figure 1: Static Perspective on Business Model Emergence

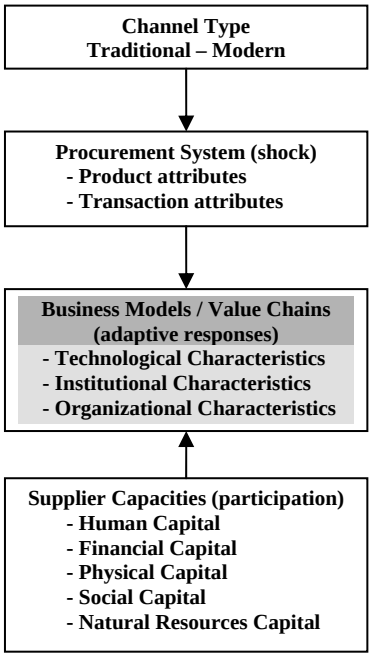
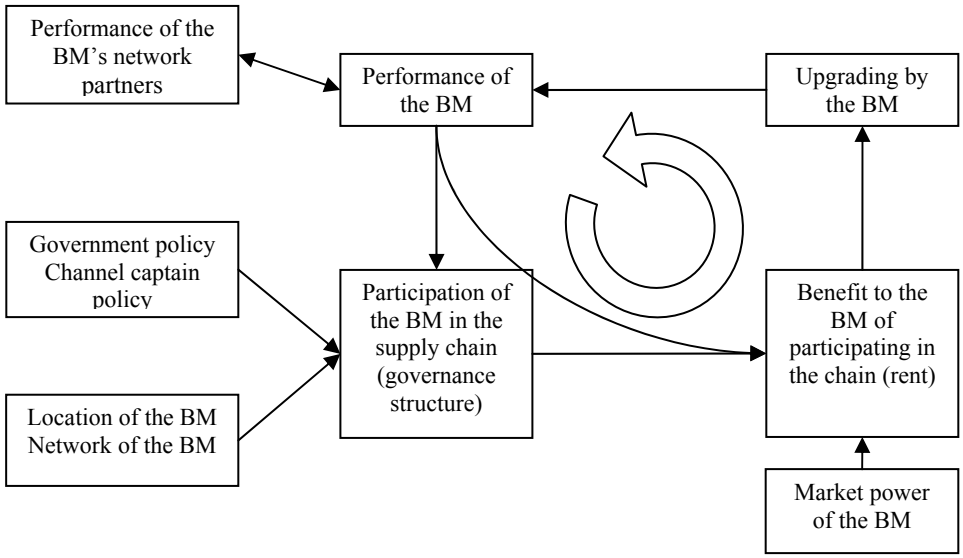


Figure 2: Dynamic Perspective on Business Model Emergence (BM=Business Model)



3. Case Study Approach

The methodological approach chosen is multiple explanatory case-study analysis. The case-studies present data bearing on cause-effect relationships, namely, they explain how groups of rural poor (smallholder farmers, farm workers) with a varying degree of commercial farmer assistance succeeded to a varying degree in becoming an integral part of a modern market channel. The case study is the method of choice when the phenomenon under study is not readily distinguishable from its environment (Yin, 2003). Here the phenomenon under study is the emergence of particular business models involving the rural poor and the environment is the market environment they operate in.

Critical for the internal validation of the findings is to have multiple sources of evidence (triangulation) and hence partially overlapping, semi-structured question sets were used to interview a wide set of key informants for each case (farmers, community leaders, NGOs, government officials, researchers, retailers, processors, and so on). In order to capture the dynamics of the business model we included questions that allowed an analysis of the model's structural change over time.

The analysis is based on four detailed case-studies of farmer groups who have been successful (to a varying degree) in linking up with supermarkets and other food industry firms in South

Africa (Neven et al. 2005a, b, c, d). These four cases reflect *three basic organizational formats* in which the rural poor are integrated in modern food supply chains: (1) farmer groups, where each farmer has his/her own land; (2) community land farming, where the farm land is fully owned by a community or farmer group; and (3) equity share schemes, where farm workers without land have become shareholders in commercial farms. Table 1 provides an overview and comparison of the four cases.

Table 1: Overview of the four case-studies

Case	Year Started	Type	Products	Markets	Commercial Farmer Participation
1. Fort Hare Farmers group	2003	Farmer Group	Fresh vegetables	Pick-'n Pay Supermarkets	None
2. Haarlem and Ericaville Honeybush growers	2001	Community-based Farming	Wet honeybush tea	Local processor	Indirect
3. Bouwland	2003	Equity Share Scheme	Labeled wine	Local, national and export market distributors	Direct (24% share)
4. Lutouw Estate	2000	Equity Share Scheme	Wine grapes	Top wine makers in Western Cape	Direct (50% share)

Source: authors' interviews.

Type 1: Farmer Groups

Fort Hare Farmers Group
The Fort Hare Farmers Group is an informal group of about 40 commercial smallholder farmers in the former Ciskei homeland (today part of the Eastern Cape Province). These farmers have relatively good access to fertile, irrigated land (owned and rented) and irrigation water. Assisted by a development project, the farmers have been marketing fresh produce (butternut, pumpkin, squash) to Pick 'n Pay supermarkets, South Africa's second largest supermarket chain, since 2003. No commercial farmers are involved.

Type 2: Community Land Farming

Haarlem and Ericaville Honeybush Growers
The Haarlem and Ericaville honeybush growers are two distinct groups producing wet honeybush for local processors. Honeybush is a tea-like herb with great domestic and export

market potential. Both grower groups are located in the eastern part of the Western Cape Province, started their honeybush production in 2001 and are supported by the same NGO. The Haarlem group is a trust which consists of 40 individual members, half of which are individually managing 1ha of honeybush on community-owned land. The Ericaville group is a trust with 85 families as beneficiaries which bought 40ha of farm land with government grants to establish a community-owned and -managed commercial honeybush plantation. Commercial farmers are indirectly involved as they manage the processing facility on which both farmer groups depend.

Type 3: Equity Share Schemes

Bouwland Landgoed Ltd
Bouwland is a 56ha vineyard in which a trust with 60 members, mostly farm workers, has a 74% equity share. The remaining share is owned by an internationally renowned vineyard. Bouwland was established in 2003 when an existing vineyard was bought. The sale included land and labels and hence Bouwland captures a major part of the value chain, selling wine under its own label via agents to supermarket chains in South Africa and Europe.

Lutouw Estate Ltd
Lutouw Estate is a 300ha wine-grape farm established on virgin land in 2000 in which 22 farm workers, through a trust, have a 40% share. Experienced white commercial farmers own 50% of the shares. The farm initially produced vegetables for cash inflow during the first three years when grape vines were getting established. Over the last two years, the farm focused solely on grape production. The grapes, now produced under long-term contracts, proved to be of top quality and were sold at premium prices to various wine cellars in the Western Cape.

When we look across these four cases, it becomes apparent that our comparative analysis does not control for product (perishability, value-adding) or location (soil, climate, agri-food sector, markets, history). While this represents an important limitation, the cases provide nevertheless an excellent set to compare the impact of the presence of commercial farmers. The four cases are similar in that for each of the four cases, the business model is focused (1) on products for which the location holds good potential to produce at a quality level desired in the modern market channel and (2) a modern market channel is readily available as long as product and transaction requirements are met. At the same time the four cases differ widely in terms of commercial farmer involvement from none to majority shareholding.

4. Commercial Farmers and Business Model Structure

4.1 Complementary Skill Sets across Agents

We distinguish four key agents in the business model: (1) downstream buyers, (2) commercial farmers, (3) development assistance providers (public, private and non-governmental), and (4) the rural poor. Each of these four agents brings unique capacities to the model, but none bring all the capacities needed to integrate the rural poor successfully into modern dynamic market channels.

What Downstream Buyers Bring to the Model
Downstream buyers (e.g., supermarkets) will usually provide only limited direct assistance to a new business venture. The critical contribution of buyers in the business model is that they provide detailed information on the market opportunities that exist. In the case of the Fort Hare Farmer group for example, technical and commercial procurement managers of Pick 'n Pay supermarkets performed a gap analysis between the farmers' current agricultural practices and those required for compliance with standards. They then communicated these gaps and the recommended remedies to the farmer groups. The supermarket will however not get directly involved (either financially or managerially) in the business model's production and post-harvest activities and expects suppliers to take care of the supply chain up to their receiving bay.

What Commercial Farmers Bring to the Model
Commercial farmers bring (1) business management skills, (2) entrepreneurship (risk-taking behavior), (3) reputation and social capital in the agri-food industry (access to inputs, capital and markets), (4) market knowledge and (5) technical expertise in production and post-harvest handling. However commercial farmers are business persons, not social development professionals.

What Development Assistance Providers and the Rural Poor Bring to the Model
NGOs and other development programs and organizations bring social development program management skills and, to a varying degree, specific technical, managerial and/or market knowledge. The rural poor bring with them their BEE qualification (ceteris paribus implying enhanced access to government grants and markets) and limited technical knowledge. So while development assistance providers are skilled trainers and consultants aimed at capacity building, analysis and information dissemination, they are not business managers.

4.2 Differences in Business Model Structure

The four cases differ in terms of commercial farmer involvement. The resulting difference in capacities have led to business models which differ starkly in terms of their organization, market-related governance structure and technology use.

Organizational Differences

Relying on their extensive business skills, commercial farmers developed business models characterized by an effective operational management structure, a division of labor, an effective financial management structure and a holistic value chain approach.

(1) The business models with commercial farmer involvement have a management structure with clear lines of responsibility and performance-based payments to managers. Bouwland for example is led by a team of managers which are each responsible for a specific organizational function (e.g., finance, operations, training, etc.). In the case of Lutouw Estate, managers are responsible for specific units (e.g., grape production) and their salaries consist entirely out of a percentage of the profits of the unit. In the business models where there is no commercial farmer involvement, decision making is a far more cumbersome process. The honeybush case illustrates

how the nature of the collective action can result in one of two ineffective extremes. At one extreme, the Haarlem honeybush growers are each responsible for one ha and act very individually with clear lines of responsibility and incentive but with little group effort in either production or marketing, partially annihilating the group effect. At the other extreme, the Ericaville honeybush growers conduct every aspect of the farm management as a group and are guided in their decision making more by social objectives than economical ones. This has the advantage that they act as one larger supplier but the important disadvantages that there is little entrepreneurial drive and that decision making is slow. For both farmer groups a strong reliance on NGO-support remained important in managerial decision making. Managerial leadership was very limited in the Fort Hare Farmers business model as farmers relied heavily on outside assistance from a development project which did not have the resources to take on all management responsibilities.

(2) Commercial farmer involvement also leads to business models which are broken down into smaller, specialized strategic business units (SBUs) within the overall business model. This modular design has several important advantages and has led to some of the more remarkable successes in the case-studies. These business units not only provide key services within the project, they are successful businesses in their own right. In the honeybush case, a seedling nursery that was set up as a separate business has a higher turnover than the honeybush plantations themselves. The Lutouw case's cost centre approach, whereby the farm is broken down into units as small as a single tractor, not only led to more efficient resource use and hence profitability, it also created specialized lower-level management positions which provided important opportunities for the rural poor to build their managerial capacities. Furthermore, these specialized management positions are associated with clear incentive structures, stimulate a highly efficient resource use and lead to faster income growth and learning.

(3) Good financial management practices are critical for any business but are especially important for business models involving the rural poor. Poor, cash-strapped households are very constrained in their working capital capacities and fast and sufficient cash inflows from sales are required. For example, in the case of the Fort Hare Farmers group, payments could take up to six weeks before reaching farmers. This was in part due to administrative bottlenecks at the level of the development assistance provider and in part due to the fact that some farmers did not have bank accounts. This delay caused some farmers to switch away from the FHF project as their working capital capacity is very limited (farmers need the money for the next production cycle right away). Financial management in the two cases with commercial farmer involvement is outsourced to an experienced administrative unit.

(4) With commercial farmers involved, the development of the business model takes on a far more holistic (value-chain) approach. Failed business models come in many forms, while successful business models have the common trait that they have addressed all critical issues simultaneously. The Fort Hare case illustrates how a string of failures (e.g., unreliable access to seedlings, tractors, transportation) has stood in the way of the development of an effective market link between a group of capable farmers and a supermarket willing to buy everything these farmers produced (as long as standards are met). Each of these failures is critical and only a simultaneous addressing of all can lead to success.

Modern markets expect that suppliers have control over their activities. A loss of control can take place at many places in the business model and hence a holistic approach to project design, akin to Total Quality Management in manufacturing, is implemented once skilled commercial farmers are involved[1]. In the "old" static market environment, one could improve one part of the supply chain (say improved seeds) and it would have a positive overall effect. Given that the new challenge not to improve an existing supply chain structure but to move to a new dynamic market supply chain, such singularly focused approaches, traditionally the nature of development interventions, are no longer suitable. The following are some examples of one particular part of a project becoming meaningless because of a missing other part in the case of the FHF: (i) provision of high price - high quality seeds but no good agricultural practices leading to weeds annihilating the seed's potential; (ii) production being ready and harvested on time but no transportation available; (iii) improving a pack house but having no access to it because it is used by other farmers for other purposes; (iv) developing a supply program but not having the farm management capacity to implement it.

Differences in Farm-to-Market Governance Structures

Modern markets as those faced by the producers in our four cases are characterized by higher and more detailed product standards, process standards and transaction requirements. For example, South African supermarkets' produce procurement is characterized by production and post-harvest process standards based on export market standards (such as EurepGAP). The wine industry in South Africa has voluntary standards (such at WIETA) but non-compliance increasingly implies market exclusion. The honeybush sector is still in a formative stage and quality standards are currently being developed.

The process nature of process standards, i.e., the never-ending quest to improve upon them, is a central concept in accessing modern, dynamic markets that is easier implemented when commercial farmers are involved. Buyers understand that production cannot be controlled to same degree in the agricultural sector as in the manufacturing sector for example, but they want producers to have processes in place that minimize quality and quantity related risks. The involvement of commercial farmers who are very familiar with the process standards and have already gone through a learning curve implies faster implementation of these standards. The Fort Hare farmers for example have not been able to meet the process standards demanded by their buyer and only an exceptional leniency of the latter has kept the farmer group in the market. On the other hand, ventures like Bouwland and especially Lutouw have benefited from commercial farmers transplanting their market-demanded management practices from their other agricultural businesses.

Beyond the contract (the "sale"), relationship management is key in modern, dynamic supply chains. The four case studies in this study indicated that finding markets (demand) is not the main challenge. In the Lutouw, honeybush and Fort Hare cases, buyers were willing to buy all that producers can supply, indicating no upper limit. The critical element is the continuous nurturing of the relationship with the buyer once established (long-term dynamic process). In the

[1] TQM is a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, production, customer service, etc.) to focus on meeting customer needs and organizational objectives. A good introduction to TQM is provided by Ishikawa (1985).

Fort Hare case, lack of communication by farm managers and little demonstration of tackling supply problems head-on stood in the way of developing a strong relationship with the supermarket chain. In the case of Lutouw, the mentoring presence of an experienced marketing manager was a key determinant of the long-term contracts obtained by the farm.

Whereas all four business models (in the four case-studies) involve the rural poor and hence access to government loans and grants, those models with commercial farmer involvement not only had better access to those loans and grants (because the presence of commercial farmers instilled confidence in the grant providers) but also had additional sources of financial capital through unique factor-market linkages. For example, LE has a contract for sauvignon blanc grape production with Distell, South Africa's largest processor of grapes. The latter's need for and the current lack of supply of high-quality sauvignon blanc grapes led it to not only offer a high price and long-term contract (15 years) but also provided a credit facility to LE. The contract provided LE with access to a loan at below market interest rates that would allow it to develop 37 ha under sauvignon blanc. The loan is paid back from future harvests. The Distell contract thus not only provides an innovative financing tool, it also secures a market for LE for 15 years.

Differences in Technology Use

Upgrading dynamics appeared to be generally linked to good financial, operational and strategic management and continuous investment. With respect to investment in upgrading technology there are no half-way solutions. The business models with a higher degree of commercial farmer involvement have made far more substantial and diverse investments in technology in order to comply with market standards relating the good agricultural practices. For example, the Fort Hare Farmers group (no commercial farmer involvement) has struggled to get its fresh produce pack-house to meet the standard set by Pick 'n Pay supermarkets and has no ownership over any other technology (e.g., tractors, irrigation, transportation) while its external access to these technologies is unreliable at best. On the other hand, Lutouw Estate (strong commercial farmer involvement) has invested in cold chain and irrigation infrastructure from the get-go and either owns or has reliable access to other technologies such as tractors and transportation vehicles.

The difference in investment in more capital intensive technologies between business models with higher and lower commercial farmer involvement are the outcome not only of differences in management strategy and capacity but also of differences in access to financial capital. This relates to the initial investment capital as well as to investments at a later stage in the development of the business. The initial investment capital was higher for business models with commercial farmer involvement because of the equity capital brought in by these farmers as well as by the enhanced access to grants from government departments who see the presence of commercial farmers as a factor positively influencing the venture's likelihood of success. Later stage investment capital could be more readily accessed in business models with higher commercial farmer involvement because of the difference in governance structure as indicated above.

5. Commercial Farmers and Business Model Performance

5.1 Economic performance differences: growth and upgrading of the business

The economic impact of a project has at least three dimensions: income effects on the participating rural poor, wealth effects on the rural poor and spill-over effects on the wider economy.

While all four cases and the business models they represent hold the potential to starkly increase the income of the rural poor (ranging from two to six times current income levels), none of the business models has resulted in a significant rise in income. In the case of the business models not involving commercial farmers, incomes have increased with only about 15-40%, mainly because progress in terms of volumes sold is slow. For the models with commercial farmer involvement incomes have not increased significantly because job responsibilities have hardly changed and because no dividends have been paid out (projects are still paying off the original investment loans).

In terms of wealth effects, however, business models with commercial farmer involvement have build up significant farm values and due to the fact that they are shareholders in the farm, the rural poor have (at least on paper) increased their wealth dramatically. In the case of LE for example, the stake held by each of the project beneficiaries represents a monetary value equal to their life-time earnings. Furthermore, through the cost center approach, one of the rural poor (who managed a tractor as a cost center) has been able to increase his net worth with a value equal to seven times his annual income in just four years. While commercial farmer based business models have launched on a strong growth path displaying the dynamics depicted in figure 2 above, farmers without such commercial farmer involvement have been slow in terms of investing in technology, have not shown much dynamic and have consequently hardly build up any farm value.

Positively correlated with the growth of the farm, economic spill-over effects on the local economy are far greater in the projects involving commercial farmers. This has been mostly due to the increased economic activity of the farm itself (inputs, services, seasonal and permanent jobs, etc.) but will in the future (once dividends are paid out to farm workers) have significant further multiplier effects as farm workers are likely to spend more on goods and services provided locally.

5.2 Social performance differences: capacity building and welfare

Social and economic development does not always go hand-in-hand. The Lutouw case for example is a remarkable economic success as measured by a 200% increase in the net market value of the farm in just five years (through continued investments). At the same time however, rural workers have only in a limited fashion increased their educational level or job responsibility and their housing provisions are sub-standard. However, as the strength of the farm's cash flow grows it will increasingly pay dividends to the worker trust which can then be invested in social

development. Had the farm invested more heavily in social development, it might have failed financially and gone out of business.

6. Summary, Conclusion and Implications for Development Programs

Main Findings

Based on four case-studies of new business models with a varying degree of commercial farmer involvement in the Western and Eastern Cape provinces of South Africa, this paper provides two key findings.

First, the analysis provides support for the hypothesis that the degree of commercial farmer involvement is positively correlated with the economic success of the model. When experienced commercial farmers hold an equity stake they have an incentive to bring their human and social capital into the model. Commercial farmers provide critical entrepreneurship and managerial leadership. Their reputation and network contacts provide access to capital as well as markets. Ventures that rely solely on the indirect support of NGOs, suppliers or buyers have to build up the above human and social capital almost from scratch. Demanding and competitive buyers such as supermarket chains do not have the time to wait for business models to develop these skills and hence prefer to source from new ventures that meet BEE criteria *and* have the capacity to meet demanding standards consistently.

Second, the case-studies reveal that economic success does not automatically imply social success. A farm may be economically successful in that its value, sales and profitability increase and in that it constantly upgrades its capacities but at the same time have little or no impact on the living conditions of the rural poor that are involved in the project. Whereas the net worth of the rural poor increases when the farm is economically successful (as their share in the venture increases in value), they may not be building the business capacities that would allow them take on greater managerial responsibility or use their newly acquired financial resources successfully in new business ventures or upgrading strategies. If their equity stake is locked-up in the business and no dividends are paid out, the rural poor may still be living under very similar conditions as they were before they accessed the modern supply chain. In the absence of any improvement in their living conditions the rural poor may decide to opt out, thus leading to a social failure of the venture.

Implications for Development Programs and Policies

These two primary findings lead to the conclusion that the success of a business model from a development perspective (i.e., one with economic and social dimensions) requires at least three elements.

First, the business model requires a *partnership approach* between experienced commercial farmers (who are directly and significantly involved in the model), NGOs (who provide the capacity building support) and the rural poor (who are selected on their managerial capacities, their level of motivation and their needs). If no commercial farmers can be involved, the business

model has to look at alternative sources that would bring instant managerial capacity to the model (e.g., retirees from industry) or the model should be abandoned given its undermined economical viability and limited development resources.

Second, the organizational and governance structures of the business model must *balance business and development goals,* i.e. keeping a focus on keeping the farm financially healthy on the one hand and providing sufficient capacity building job opportunities and monetary incentives for the rural poor on the other hand. In other words, a business model aimed at assisting a small farmer organization to link up with dynamic markets has to carefully walk the tightrope between economic and social development. Profit generation and re-investment in the business model should get priority as the project's sustainability (through constant upgrading) is threatened otherwise. However, from the start and increasingly over time, there should also be a focus on the social aspects of the project (expendable income, education, job level, housing, health services) because in the absence of such improvements the project's beneficiaries will get discouraged and loose interest. The competing cash needs of poor rural households as a consumptive unit (living cost) and a productive unit (working capital) implies the need for a careful cash flow analysis from the very start of the project.

Third, business models aimed at integrating the rural poor in modern food supply chains imply a process and as such require *a more holistic, long term approach with a strong focus on knowledge transfer*. Long-term, knowledge integration is a key component of successful business models aimed at integrating the rural poor in modern marketing channels.

In a dynamic environment, adaptability is the ultimate core capability. Essential in this is to make knowledge a focus point as it is needed for the upgrading dynamic (shift in mindset to that of an entrepreneur). Since all the critical elements must be in place from the start, and the farmers do not have (all) the knowledge from the start, knowledge must in the first phase be brought in. Then a mechanism must be designed to transfer this knowledge from the contracted source to the resource poor farmer. With the transfer of knowledge comes a shift in mindset to where the smallholder farmers group will actively look for ways to upgrade their operations from within, gaining new knowledge (learning).

Knowledge integration and transfer has been a key determinant for the success (or lack thereof) of the business models in the four case-studies. In the Lutouw case, the role of a large-scale commercial farmer (with extensive experience in both production economics and marketing negotiation) as the mentor is the single most critical element for its economic success. In the Bouwland case, focused as it is on more value-adding, a larger and more varied group of mentors was instrumental in its successful start. In the Fort Hare case, the lack of an experienced and well-performing farm manager was the single most critical element in its failure to achieve its otherwise great marketing potential. The case-studies show that efficient and effective knowledge transfer requires careful partner selection. Given South Africa's current policy environment, which creates strong incentives for existing businesses to align with resource poor farmers, such outside mentorship can more readily be found.

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Case Studies of Farmer Organizations Linking to Dynamic Markets in Southern Africa:

Case Study 1: The Fort Hare Farmers Group, South Africa

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1. Introduction

This report presents a case-study that documents and analyzes how an informal group of emerging farmers (smallholder commercial farmers) in the Nkonkonbe municipal area of the Eastern Cape Province of South Africa succeeded in becoming a fresh produce supplier to a major domestic supermarket chain.

Prior to selling to the supermarket, the farmers in the area were limited to selling a small set of produce items (cabbage, butternut, green maize, pumpkin, spinach) to irregular buyers such as small groups of local hawkers who rent a pick-up to collect the produce from the farmers and sell it to street hawkers and small retail outlets in nearby towns. For the farmers, this local market is very unreliable. For less perishable items such as butternut, farmers can usually get most of their harvest sold, *if* they can take it to the local markets themselves *and* are willing to accept at times very low prices. For other items such as cabbage, which when ready must be sold immediately, it is not uncommon that only 40% of production can be marketed, the other half left to rot in the fields. With around 90% of their income coming from the sales of fresh fruits and vegetables, the farmers were looking for markets that can buy all of their produce at profitable prices[2].

Starting in 2002, at the initiative and with the assistance of a USAID funded development program, an informal sub-group of the farmers in Nkonkonbe developed and implemented a strategy to enter the rapidly growing and far more reliable supermarket sector. The program, which is part of the Partnerships for Food Industry Development – Fruits & Vegetables (PFID-F&V) project administered by Michigan State University, brought together scientists from the latter and the University of Fort Hare, as well as procurement managers of Pick 'n Pay supermarkets, South Africa's second largest supermarket chain. Because of the central role played by the University of Fort Hare (located in Alice at about 30km from the farms discussed here), the informal group of farmers is referred to as the Fort Hare Farmers (FHF) group. The produce items supplied by the FHF to Pick 'n Pay supermarkets focus on the farmers' summer crops and involve both items the farmers are used to grow (butternut, white pumpkin, blue-grey pumpkin) as well as some items that are new to them (gem squash, Hubbard squash, watermelon).

This report is structured as follows. In the next section we briefly discuss the methodology used. Section 3 discusses how the FHF group evolved from its conceptualization in 2002 to the state of affairs in March 2005 when the fieldwork took place. Section 4 then presents the various markets the FHF group sells to, focusing mainly on the nature of the procurement systems. Section 5 then presents the business model that emerged and analyzes how the capacities of the farmers played a critical role in this. Section 6 analyzes the income effect. Section 7 provides implications for development programs aimed at assisting smallholder farmer groups to access dynamic markets.

[2] The 90% of income derived from fresh fruits and vegetables sales is an estimation provided by Patrick Masika, Director of the Agricultural and Rural Development Research Institute (ARDRI) at the University of Fort Hare.

2. Methodology and Analytical Framework

This is report represents a single explanatory case study (intended to feed into a multiple explanatory case-study analysis). The case-study presents data bearing on cause-effect relationships, namely, it explains how a farmer group succeeded in entering a modern market channel for fresh fruits and vegetables. The case study is the method of choice when the phenomenon under study is not readily distinguishable from its environment (Yin, 2003) which in this case are the emergence of smallholder farmer organization (SFO) and the market environment it operates in.

Theory is central in explanatory case-studies (i.e., these case studies have a research objective rather than a teaching or dissemination objective). Theory helps in the selection of the case(s) and in the selection of the variables. In this case we are guided by the analytical framework presented in figure 1 (static perspective) and figure 2 (dynamic perspective).

Figure 1: Static Perspective on Value Chain Analysis

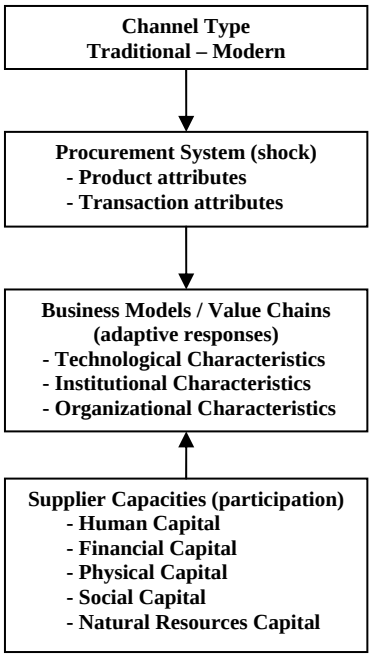
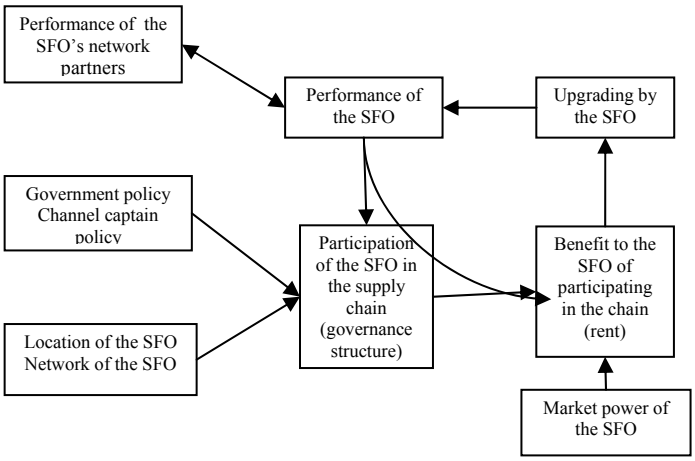


Figure 2: Dynamic Perspective on Value Chain Analysis
(SFO=Smallholder Farmer Organization)



Case-studies that look at contextual variables add rich detail to the analysis. However, for internal validation of the findings, multiple sources of evidence are required (triangulation of data). The analysis presented in this report is based on secondary information, field observations and (mostly) on key informant interviews.

The following people participated in semi-structured interviews using partially overlapping question sets:

- Helene Keyser, Food Technologist, Pick ‘n Pay supermarkets;
- Andile Siyengo, Program Coordinator, PFID-F&V South Africa;
- Flash Bediako, PFID-F&V South Africa, faculty member of ARDRI;
- Patrick Masika, Director ARDRI, University of Fort Hare;
- Philip van den Berg, Chief, East London Produce Market;
- Roger Hutchinson, Principle Sales Representative, Starke Ayres (seed company);
- Bernie Roux, Farm Manager PFID-F&V South Africa;
- Justice Mbane, Extension Officer, Burnshill area;
- Zola Manona, Extension Officer, Lenye area;
- Mfundo Kalawe, Farmer, Member Burnshill Farmer Coop;
- Nombulelo Majiza, Farmer, Treasurer Burnshill Farmer Coop;
- Joe Simbeku, Farmer, Vice-Chairman Burnshill Farmer Coop;
- Tony Hoeller, Wholesale Agent East London Produce Market;
- Nelson Booi, Farmer, Member, Lenye Farmer Association.

3. Background and Context

3.1 The context in which the Fort Hare Farmers Group Emerged (2001-2003)

Conception

The emergence of the FHF group was the direct outcome of a project conceptualized in 2001 in the context of the Partnerships for Food Industry Development program (PFID). PFID is a USAID-funded university/food industry joint technical assistance program that supports the strengthening of food industries and promotes competitive participation in the global trading system. For the fruits and vegetables sub-program (PFID-F&V) under which the FHF project falls, Michigan State University is the lead university[3].

In 2001, the PFID-F&V project via one of its South African partner organizations, the Agricultural and Rural Development Research Institute (ARDRI) at the University of Fort Hare in Alice (Eastern Cape Province), was assessing the opportunities for linking emerging farmers in South Africa as fresh produce suppliers to Pick ‘n Pay Supermarkets. Pick ‘n Pay Supermarkets has been an important network partner in the PFID-F&V project in South Africa. With 2002 sales of R18.8 billion, Pick ‘n Pay Supermarkets is the second largest food retailer in South Africa (after Shoprite Supermarkets). The chain has grown very rapidly, nearly tripling its turnover and number of stores since the end of Apartheid in 1994, and is expanding vigorously into emerging markets such as the former homelands, the rural areas and the townships (Weatherspoon and Reardon 2003). Part of these emerging markets is the poor, but economically rapidly growing Eastern Cape Province[4].

[3] More information on this program can be found at www.pfid.msu.edu.

[4] The Eastern Cape’s economic growth is mainly due to a strong growth of the manufacturing sector, most notably in the car industry.

Pick 'n Pay's interest in the PFID program's activities in the Eastern Cape follows from various reasons. First, the FHF have the potential to improve the chain's produce procurement system in the Eastern Cape by: (1) expanding the procurement window for certain crops (e.g., watermelon in November) or (2) substituting more expensive supplies from the chain's Johannesburg distribution center for locally grown produce (e.g., potatoes). Second, procuring from previously disadvantaged groups, such at the FHF, fits well in its corporate social responsibility mission and the chain's commitment to the project comes from the very top of the management structure. Corporate social responsibility has become especially important (almost gained legal connotations) for all private sector players in the context of Broad-Based Black Economic Empowerment (BBBEE)[5].

BBBEE Policy

The BBBEE Act of 2003[6] (in effect since January 2004) established a legal framework to assist South Africa's socio-economic transformation from one characterized by "vast racial and gender inequalities in the distribution of, and access to opportunities, wealth, income, skills and employment" to one where historically disadvantaged South Africans are economically empowered through changes in ownership and management structures, skills development, facilitated market access and selective investment strategies. The Act empowered the Minister of Trade and Industry to issue specific codes of good practice (CoGP) as related to BBBEE's objectives (these were released in December 2004[7]) and established a BEE Advisory Council.

In July 2004, the South African Department of Agriculture released a draft BBBEE framework for Agriculture (AgriBEE[8]). The AgriBEE translates the general principles of the BBBEE Act to the agri-food sector. It provides specific guidelines (not laws at this point in time) for all companies in the food supply chain ("from farm field to consumer plate"). Two elements in this AgriBEE, namely human resource development and preferential procurement, are of particular importance in the context of the FHF case study.

With regard to the capacity building of previously disadvantaged farming communities, the food retail sector is expected to work with other stakeholders in the agricultural sector to establish training programs for farm and enterprise workers in appropriate technical and management skills by July 2005.

With regard to the procurement systems of the retail sector, the AgriBEE stipulates that: (1) 50% of the total value of all procurement should come from BEE companies[9] by 2010 (and 70% by

[5] The original name (BEE) was changed to Broad-Based BEE to reflect the danger that a transfer of vast amounts of wealth from a small white elite to an even smaller black elite may actually suffice to meet quantitative BEE targets regarding ownership of economic resources. Such a transfer would clearly be in contradiction to the spirit of BEE. The extent to which BEE is broad-based remains of point of debate.
[6] More information can be found at www.info.gov.za/gazette/acts/2003/a53-03.pdf.
[7] More information can be found at www.dti.gov.za/bee/CODESOFGOODPRACTICE.htm. The industry's position on these CoGP can be found on the website of the South African Chamber of Business (www.sacob.co.za).
[8] More information can be found at www.nda.agric.za/docs/agribee/agriBEE_26July2004.pdf.
[9] A BEE enterprises is an enterprise with representative levels of participation, ownership, management or control by black, colored or Indian South Africans (as a group referred to with the generic term black people). Depending on

2014); (2) preferred supplier status should be granted to 50% of BEE companies by 2010; and (3) contractual payments for work rendered by BEE companies should be immediate (i.e., monthly). From the 2005 financial year, retailers such as Pick 'n Pay are expected to report on BEE procurement and agricultural support service initiatives in their annual report. The CoGP framework released by the Ministry of Trade and Industry provides for annual third-party audits that will attach a BBBEE score to the firms' performance. This score will allow for a classification of the firms from a limited to an excellent contributor to BBBEE (four classifications). The classification will then determine a firm's access to government contracts, business licenses, concessions to manage assets on behalf of the state, assets or state-owned enterprises sold by the state, public-private sector partnerships, or any other economic activity.

Selected farmer communities

After a careful search, two farming communities were selected for the project in 2002. These communities were selected because their easy access to main roads, the presence of an overhead irrigation system and abundantly available land with fertile soils increased the probability of success for this new-ground braking project. Furthermore, complying with specific requirements of Pick 'n Pay supermarkets, no animal traction is used by the farmers, nor is there a sewage processing plant nearby (as was the case for other farming communities initially considered for selection) thus reducing the likelihood of E. Coli. contamination. In a final selection step, some of the farmers' produce was sent to Pick 'n Pay as a sample to evaluate its quality and food safety characteristics (in lab testing). The produce was found to meet the supermarket's product standards and the project got the green light.

The selected communities are the Burnshill and Lenye villages, two of the five villages that comprise the Nkonkonbe Municipality (Amathole District, Eastern Cape Province). The villages are located at 120km from the East London fresh produce market and at 250km from Pick 'n Pay's nearest fresh produce distribution center in Port Elizabeth. In each of the five villages there is either a farmer association or a farmer cooperative (grown out of a farmer association). Burnshill has a farmer cooperative with 25 members while Lenye has a farmer association with 55 members. The Lenye farmers association is in transition to becoming a cooperative (likely to be realized in 2005). Almost all farmers in each village are a member of the cooperative or association (especially those growing vegetables for the market; farmers mainly focused on cattle may not have become members).

After initial meetings with the farmers to explain the project's goal of linking them to Pick 'n Pay supermarkets, about 50 emerging farmers joined the project. Around 80-90% of the farmers are men, relatively young and of an average social status in the community. These farmers became the informal group called the FHF. The existing association and cooperative structures do not play a direct role in the FHF group, although they provide a legal entity that could transact with Pick 'n Pay supermarkets in the future. Alternatively, the farmers, with the assistance of government extension officers, are considering the formation of a new central cooperative (a cooperative of cooperatives) that would be focused on the fresh produce marketing activities of the farmers in the Nkonkonbe municipality.

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the equity structure, five different BEE enterprises are distinguished: (1) black enterprise; (2) black empowered enterprise; (3) black-influenced enterprise; (4) Black engendered enterprise; (5) community enterprise.

Implications of the location in the former homeland of Ciskei

In order to understand the current structure of the agricultural production system in the project area, it is important to know its history. The Burnshill and Lenye villages were established after the second world war on an old German-owned farm the land of which was broken down into a group of small farms by allocating 2 to 2.5ha to each of the households (Bediako, 2003). The farmers that emerged in this time period are the current aging landlords. Over the years, households retrenched from non-agricultural sectors such as mining moved into the area leading to mixture of old established families and new younger ones (currently new entrants are not allowed in the area). Some of the later entrants were allocated land, but less so than in the 1940s land allocation. From the 1940s to the 1970s, economic activity in the area consisted mostly out of livestock/dairy combined with some subsistence agriculture.

In 1961, the villages became part of the former homeland of Ciskei. Homelands were pseudo-independent territories set aside by the Apartheid-era South African parliament for blacks to allegedly allow them self-government and cultural preservation. Ciskei, designated for Xhosa-speaking people, became a separate administrative territory in 1972 and an independent country in 1981, albeit not recognized by the international community[10]. Like all homelands it remained heavily dependent on South Africa.

In the early 1980s, Ciskei president Lennox Sebe started various large scale agricultural projects to create employment and produce food. These projects included tractor schemes and irrigation schemes and clusters of small farms were operated and managed as state farms by a parastatal organization, the Ciskei Agricultural Corporation (Ulimocor). Ulimocor controlled all activities from the provision of inputs over production planning to marketing, de facto turning local farmers into farm workers on their own farms. The project villages of Burnshill and Lenye are part of one of these schemes, the Zanyokwe Irrigation Scheme. The latter was set up with Israeli assistance and is a 471ha scheme fed by the Sandile dam on the Keiskamma river. The dam is currently owned by the Department for Water Affairs and Forestry (DWAF). During most of the 1980s the scheme produced various crops and was highly productive. However, due to mismanagement by Ulimocor, the Zanyokwe irrigation scheme (as well as a related tractor scheme) collapsed in the early 1990s.

In 1994, after the end of Apartheid, the homeland of Ciskei ceased to exist as the area became part of the new Eastern Cape Province. Ulimocor and its assets (including the Zanyokwe irrigation scheme) were liquidated in 1997. Support from the Provincial Department of Agriculture in the project area was limited to some maintenance of the main irrigation lines and the presence of extension officers. In the absence of a clear government policy, farmers were left to their own devices and given the farmers' prior dependence on Ulimocor for farm management, few farmers (maybe only 5%) had the experience and drive to remain active in agriculture and become emerging farmers. The majority of the population survived on a combination of welfare payments and subsistence agriculture. As a result, the second half of the 1990s became one of relative inactivity.

[10] From www.encyclopedia.com.

From 2001 onward, the municipalities became more hands-on in rural development. Various new projects were initiated and the Zanyokwe irrigation scheme was revitalized, with renewed support from the Provincial Departments of Agriculture and Public Works: the irrigation system was rebuilt, the availability of tractors was increased and other infrastructural improvements were made (e.g., fences to control livestock). In 2001, the Zanyokwe Agricultural Development Trust was established to manage the irrigation infrastructure, the ownership of which remains with the provincial government. The trust is a legal entity which represents an estimated 120 farmers from six farmer groups (including the Burnshill cooperative and the Lenye farmers association). Each of these six groups elects two farmers, one owning land and one leasing land, to reside in the trust (12 trustees).

As an integral part of this support program, a revolving loan fund for the farmers was established. The revolving fund managed by the Land Bank provided farmers with loans of R10,000 per farmer and was intended to fund agricultural production (e.g., the growing of cabbages). It concerns soft loans with an interest rate around 10%. Only an estimated 30% of these loans have been repaid. This is linked to the fact that few of the households in the area are serious and skilled farmers. The other 70% of the loan-receiving farmers either did not use the loan for agriculture (but for setting up a shop or other small business or for consumption goods like TVs) or they used it for agriculture, but not being experienced farmers, they did not get a good return.

The current structure of the farmer community is thus one of heterogeneity. An older generation of less-active land-owning farmers (in their 70s and 80s) leases land to a younger generation of farmers (below 50 years old) who believe they can make a living for themselves in agriculture. Independent farmers who develop various initiatives to increase the profitability of their farms live next to more passive farmers who wait for outside assistance (e.g., from the government, NGO projects) to guide them.

Project Start-Up

In 2002, the PFID program assisted by government extension officers invited the farmers in the Burnshill and Lenye villages to join the project. Around 50 farmers joined the project and organized themselves as the FHF group. A set of training and workshop sessions were organized to explain the project in greater detail and to prepare farmers in the areas of production technology, record keeping, and so on. In that same year, the FHF started producing butternut and gem squash for Pick ‘n Pay and the first supplies arrived at the supermarket’s distribution center in 2003.

In terms of the selected produce items, the program envisioned three phases. In the current first phase the focus is on relatively easy to store items which do not require cold chain technology such as squashes and pumpkins. In the next phase, the farmers will shift to potatoes which are still relatively easy to store (no refrigeration is needed), but which require more resources to produce, especially for the large and regular volumes Pick ‘n Pay wants in order to keep its transaction costs down. High demand and access to a washing & sorting machine, make potatoes a high potential winter crop for the FHF farmer. In the third phase the farmers will shift to more demanding produce items, such as carrots and onions, for which a well equipped pack shed

becomes a requirement. For example, onions require two weeks of curing while carrots require a chlorine wash and controlled atmosphere storage. Still more demanding crops, such as tomatoes for which greenhouse technology is required by Pick 'n Pay, are not yet considered.

This three-phase approach is intended to give the farmers the time to build up expertise and financial capital to progressively upgrade their farms. In this first phase, Pick 'n Pay has made things easier for the farmers into two additional ways: (1) less demanding packaging requirements and (2) extra time to get ready for a quality/safety process audit. For example, FHF can supply butternut in 10kg bulk bags (as opposed to the smaller, bar-coded and labeled pre-packs). The FHF are also given additional time to upgrade their production and post-harvest system to the level that is needed to meet Pick 'n Pay's process standards (since 2005, new produce suppliers must by audited and certified before they can start supplying the supermarket).

3.2. Setback (January 2004 – March 2005)

After a promising start in 2003, the project encountered a slew of problems. Some of these problems were due to uncontrollable factors. For example, in January 2004, a tornado hit the Zanyokwe area destroying 300ha of vegetables and other crops. Of more enduring influence are a series of new development projects that have emerged in the project area, each competing with the FHF project for resources (e.g., water, tractors) and the attention of the farmer.

At least three additional projects have come into the area. First, there is a smaller cotton project (12ha) which is linked to a private textile company (Da Gamma). Second, there is a paprika project (currently at 25ha, planned to expand to 90ha) which is initiated by the Siyakholwa Development Corporation (an NGO) and supported by the South African government. This project provides free inputs to the farmers in the area and organizes them to produce dried paprika for a processor in Durban who exports the bulk commodity. Third, the Massive Food Program, a grain project (150ha) came into the area in 2004. This 5-year, US$60-million project, initiated in 2003 aims to address poverty and hunger, low skills and the grain (mostly maize) trade-deficit (70% of the Eastern Cape Province's food was imported in 2001) by increasing annual grain production from 50,000 to 500,000 MT. Inputs (seed, fertilizer) are given at heavily subsidized prices, tractors were bought within the context of this project and skills training is provided by the Department of Labor[11].

Farmers are very responsive to these new projects. For example, one of the interviewed farmers had increased the percentage of her 3.5ha of farm land under maize from 10% to 70% under the influence of the Massive Food project. This response furthermore appears to be divided along village borders, hinting at some inter-village rivalry which may affect the FHF group: the paprika and cotton projects have foremost been adopted in Lenye, the massive food project and FHF project in Burnshill.

However, more fundamental problems, related to the management of the program, most notably the farm management, underlay the major setback in 2004. In January 2004, the operational management of the project had shifted from researchers at the University of Fort Hare to two farm managers hired successively and specifically for the project. These farm managers failed to

[11] More information on this project can be found on the website of Absa bank (www.absa.co.za).

perform. In part this was due to the fact that the farm managers were hired for only one day per week In part, the weak performance of the farm managers was due to lack of commitment and/or skill.

This weak performance had various dimensions. First, on the production side, the farm managers brought seedlings too late to farmers, were not readily available to farmers in case of problems and did not appear qualified to provide agronomic advice for the farmers. Second, on the marketing side, farm managers failed to organize timely transportation on the days the farmers harvested the produce according to production plan. At times, farm managers showed up maybe 4-5 days after harvest, at which time the produce's quality had deteriorated to the point were it no longer met the requirements of Pick 'n Pay. Farm managers also did not communicate regularly with Pick 'n Pay, a very important activity for the supermarket's procurement manager. Third, due administrative problems at various stages in the program, the normal time between when the produce arrives at the distribution center of the supermarket and when the farmer is paid increased from two to up to six weeks.

In part a response to these discouraging experiences, in part due to the temptation or the need to sell for direct cash payments, various farmers stopped honoring the verbal agreements and sold produce initially intended for Pick 'n Pay to local traders or to local consumers on market days (day of the month that welfare payments are made). Because of this "breach of contract", some of the FHF were dropped from the program. Various stakeholders in the project, including the farmers themselves, indicated that with written contracts, farmers would be far less likely to sell to others. In fact farmers indicated to be strongly in favor of contracts, making them a requirement for their further involvement.

As a result of these various problems, the number of farmers involved in the project dropped over time from 50 (at start-up in 2002) to 30 (in March 2005). Furthermore, of those 30 farmers only four (all in Burnshill) had planted for Pick 'n Pay supermarkets (a combined 10ha). And even then, the plantings of these four farmers were at the initiative of the farmers themselves, not based on the project's production plan. These four farmers were producing approximately 4MT per week, mostly marketed to the fresh produce market in East London rather than to Pick 'n Pay. The other 26 farmers had not planted but were still interested in the project, waiting on the side-lines to see if the project's problems can be resolved.

Reductions in supplied volumes were equally stark, with only two MT (down from 6MT in 2003) supplied to Pick 'n Pay for the whole of 2004 (about one MT each of butternut and gem squash). For example, whereas the supply plan for the FHF foresaw supplies of 400 pockets of butternut per week for December 2004 alone, only 100 pockets (10kg bags) of butternut were supplied in the whole year. To put this further in perspective, of the 77,000 pockets of butternut which were handled by Pick 'n Pay's produce distribution center in Port Elizabeth in 2004, only 100 (0.1%) came from the FHF.

3.3. Re-focus (2005 and beyond)

Even with the setback in 2004, the various stakeholders are still very committed to the project and the project still holds great potential. The project management is convinced that current

problems can be addressed and expects volumes will increase both through an increase in the number of farmers in the project and through an increase in the acreage each participating farmer will allocate for Pick ‘n Pay. The farm manager indicated that the 26 farmers sitting on the side-lines are still eager to participate in the project, as they realize that they need access to reliable markets such as Pick ‘n Pay where they can sell most of their production and get a regular income. At the other end of the supply chain, not withstanding the discouraging small and irregular supplies it received from the FHF, Pick ‘n Pay is keen to see this project succeed, indicating that they can and will buy all the produce the FHF can supply, providing its quality and food safety requirements are met.

In April of 2005, a meeting involving the various stakeholders was organized to get the project back on track. The current plan aims for 30 farmers who each devote 2ha to the project and as a group will supply 20-40MT of produce per week to the various markets. Additional key elements are: (1) the hiring of a qualified, full time farm manager who will work in part on a profit sharing basis and will manage everything from production planning to marketing, (2) the provision of contracts for the individual farmers based on the production program, and (3) the hiring of a third-party company to provide reliable transport. The issues of equipment availability, re-organization of the packing shed, the development of a traceability system, training modules for the farmers and the payment mechanism are yet to be worked out in detail. The new organizational structure will be set up by June and the first seeds can go the nursery on 1 July 2005 with supplies to Pick ‘n Pay starting by mid-November.

Provided a proper business plan is developed, Pick ‘n Pay may provide funding for the farm manager’s salary, the further upgrading of the pack shed facility and the provision of production equipment. This would be in the form of a loan which the farmers would pay back from sales revenues as these grow over time. Farmers will have to purchase seed and the necessary fertilizers and chemicals themselves. The product focus remains the same as before (i.e., blue pumpkin, Gem squash, white pumpkin, watermelon, butternut, Hubbard Squash).

4. Various Markets and their Procurement Systems

The FHF farmers sell their produce via three distinct market channels: Pick ‘n Pay (the primary market), the East London Market (secondary market) and local markets. Due to the project, the FHF shifted from supplying approximately 85% of their produce to local and 15% to the secondary market before 2003 to supplying 13% to the primary market, 80% to the secondary market and 7% to local markets in 2003.

Target Market: Pick ‘n Pay Supermarkets

The project’s main objective is to develop a vegetables supply program for Pick ‘n Pay’s distribution centre (DC) in Port Elizabeth (one of the chain’s four produce DC’s in South Africa), which serves 24 stores across a wide area (from Mussel Bay to Umtata). Most of the produce is procured from farmers in the Eastern Cape province, except to address seasonality and in the case of tropical and subtropical crops (e.g., bananas) when produce is procured from the Johannesburg DC. The Port Elizabeth DC also provides the other DCs with produce from the Eastern Cape. The produce supplied by the FHF is for the Eastern Cape stores only (no national distribution).

Pick ‘n Pay’s Eastern Cape DC has 33 produce suppliers (plus the DC in Johannesburg). Some of these are individual farms, some are coops. Some supply just one item while others supply a wider range of produce items. For butternut, one of the key products for the FHF, there is one large supplier in the Eastern Cape who supplies all the DC needs (FHF supplies can easily be added to this supply), except in winter (June-August) when they get the item from the Johannesburg DC. Over time, these suppliers have become an established group with a lot of trust and mutual support between these suppliers and Pick ‘n Pay. De-listing of a supplier is rare (only one produce supplier was delisted in 2004).

Although there is a supply program indicating volumes, actual deliveries to the DC involve a constant communication between the supermarket’s procurement manager (on what volumes are needed) and the farmer (on what volumes are getting ready or failing to get ready for delivery). The ordering mechanism differs by product type. For bulk (easy to store) items, orders are supplied for the upcoming six-day week. Orders from each of the individual branches are collected at the DC and send out to the various suppliers once a week. For highly perishable produce items (such as leafy vegetables or tomatoes), orders are send out daily by 10am for supply the next day between 5am and 2pm (depending on the produce item). This is done over the phone, with a fax for written confirmation send out once a week.

With regard to the retail price, Pick ‘n Pay checks prices at competing stores and uses this information to set their own prices at a desired relative level. For example, Shoprite’s prices are usually about 5% lower for produce while SPAR store prices are usually about 14% higher. Prices at fresh produce markets are generally not taken into account because quality differences (lower in the fresh market) make such a comparison not meaningful. Spot market prices are checked, but only as background data or when prices reach extremes at that market[12].

The produce buyer at Pick ‘n Pay decides on the margins (between purchase and retail price) and these margins differ across produce items and are at maximum 30%. There is an additional fixed 8% mark-up for the outsourced distribution logistics (transportation from DC to individual branch). The produce buyers are expected to get a certain overall return in the produce category hence they have some price-setting flexibility over the various products and over time.

With regard to the price paid to the supplier, there is an on-going price but price changes can be suggested by either buyer or supplier. For example, Pick ‘n Pay may ask for a price reduction if they see that their prices are getting too much higher than their competitors’ prices. Farmers may ask for lower prices in order to move larger volumes or for higher prices because they can sell at higher prices in the wholesale market. Price agreements are always reached because both parties depend on each other over the long term.

Three sets of standards are applicable to suppliers of fresh produce items to Pick ‘n Pay supermarkets. The first is a process-standard which describes a set of good agricultural practices which the farmers must follow. Based entirely on the EurepGAP standard developed by EU supermarkets in 1997, this standard covers how farmers should address a broad set of activities, including: traceability, record keeping, input choice, site management, soil management, input

[12] This could for example happen for tomatoes.

selection, use and storage, irrigation, harvesting, produce handling, waste management, worker health, safety and welfare and environmental issues[13].

A second process standard is Pick 'n Pay's pack house standard. This 11-page document specifies the physical and operational nature of the pack shed across 12 aspects: (1) food safety policy and records, (2) personal hygiene, (3) protective clothing, (4) facility and environment, (5) pest control, (6) equipment, (7) facility layout and production control, (8) receiving, stock rotation and food storage, (9) housekeeping, cleaning and sanitation, (10) process control, (11) lab and product analysis, (12) dispatch and transport.
For example, the standard indicates that there can be no animals in the vicinity of the pack house, that the construction must be closed, that food grade water must be used, that pest control measures must be implemented, that there must be toilets for the personnel, and so on.

Finally, there are product standards for each of the produce items. For butternut for example, this standard describes (over 8 pages) that amongst others, it should: (1) be washed, sorted for size consistency and packaged in 10kg orange netted bags, (2) be labeled indicating the expiration date and a traceability code, (3) be of uniform rich cream color, (4) weigh between 0.6-1.2kg per butternut, (5) have less than 10% skin markings, (6) have no insect damage, disease or physiological defects. The product standard also covers the product-specific post harvest handling process which includes a traceability and a auditing system (12 steps from harvest to dispatch). Given this demanding product standard, producers can only supply their highest quality grade to the supermarket.

Secondary Market: East London Produce Market

The FHF sell their second quality grade produce at the East London produce market. This market operates with five buying agents who do not take ownership of the produce but rather sell on commission for the supplier. There are some differences with the supermarket channel. First, all quality levels are acceptable (except when it would be classified as unfit for human consumption by government inspectors) because the market attracts a wide and varied set of buyers who buy from the highest to the lowest quality level. Second, prices fluctuate daily following demand and supply conditions as well as price changes in other produce markets, most notably the Johannesburg market. This results in prices ranging from roughly half to twice the price paid by Pick 'n Pay (not taking transportation cost differences into account). Third, volumes of all sizes are accepted, even small volumes. Fourth, farmers do not have to pay contributions for promotions and breakages (which are deducted from the payment in the supermarket channel), but instead a similar percentage is deducted for the agent's commission (5 to 7.5%) and for market fees (5%).

Given this flexibility in quality, price and volume, farmers can be fairly certain to get their produce sold in the produce market. Nevertheless, like supermarkets, the market's agents prefer their suppliers to be reliable suppliers of sufficient volumes of a certain quality of produce (does not have to be the highest quality, but has to be sorted on quality) as this is the only way they can build up a good customer base over time.

[13] More information on the EurepGAP standard can be found at www.eurep.org. The critical document is titled *Control Points and Compliance Criteria - Fruits and Vegetables.*

Other Markets

As the supply to primary and secondary markets keeps stuttering for the FHF, they continue to rely on the local market (cabbage, butternut, potatoes, maize) and project-based markets (paprika, cotton, maize).

5. Farmer Capacities and the Emerging Business Model

We distinguish three key components to the business model used by the farmers to link up with the supermarket: organization, governance, and technology. This section will discuss each of these components in detail, explaining the various choices that were made and the problems that were encountered.

5.1 Organization

Farmer Associations/Cooperatives

While the presence of a legal entity such as a cooperative creates an opportunity for the farmers to procure and to market as one group, it has not occurred yet. Farmers buy inputs (e.g., seedlings) and sell their output as individuals or as small groups of two or three farmers. The farmer associations and later the farmer cooperatives were established primarily because access to funding (e.g., through projects) is not feasible at the level of individual farmers. Furthermore, the group formation is set up along administrative lines (villages) rather than along economic lines (markets), because it is easier to manage a group within a given community than across communities. The coop structure is thus not used to sell produce to Pick ‘n Pay at this point. The FHF are an informal group on their own, with two equally informal sub-groups based on the two farmer communities.

All the participating farmers are emerging farmers. Commercial farmers, who through their experience could serve as mentors or through their scale could serve as contractors in an outgrower scheme, are not included since there are no such farmers close to the project area. This is one reason why Pick ‘n Pay is interested in the FHF group: how, through which business models, can groups of emerging farmers get involved in their supply chain?

Extension officers who assist the farmers in their group formation efforts, indicated that the farmers plan to establish a central cooperative (cooperative of cooperatives) once all the villages have a “primary” cooperative. This central cooperative (planned for 2005) will then become a strategic business unit (the main marketing and procurement body) and be the focal partner for buyers such as Pick ‘n Pay. There already exists such a primary/central coop structure for the dairy sector in the area.

Farm Management

Farm management is probably the single most important piece in the business model. Farm management (production and post-harvest) covers a wide set of responsibilities, including: (1)

establishing a supply program, (2) translating the supply program into a planting plan for the whole producers group, (3) financing and providing the right resources at the right times (most notably seedlings and tractors), (4) managing pests, (5) communicating with markets, (6) organizing harvesting, washing, sorting and packaging, (7) organizing transportation of the produce to the market, (8) organizing payments, and finally (9) deciding on reinvestments in upgrading the resource base. Farm management has to be both effective and efficient in performing all these tasks.

In 2003, social scientists at the University of Fort Hare (UFH), assisted by government extension officers on the agronomic side, took care of farm management. This went well, but proofed to be more involving for the scientists than was feasible in the long term. A farm manager was hired at a fixed and competitive salary for one day per week. This manager started his activities in January 2004. He was introduced to the farmers and the UFH scientists pulled themselves back from the day-to-day operations. After six months, this farm manager resigned, indicating late salary payments and a work overload, and a new farm manager was hired, again for one day per week, starting in July 2004. This second farm manager performed poorly in almost all aspects and was fired in February 2005. The watermelon example illustrates the importance of good farm management (see Box 1 below).

Box 1: The watermelon example

The watermelon example illustrates the challenges of establishing a supply chain and the many ways in which bad farm management can lead to failure.

1. The original plan was to plant seedlings in late August 2004 so that the FHF could supply watermelon at premium prices in the November-December window when there were no local supplies. An unusually cold August and September did not allow this and only by mid-October could the farmers plant the watermelon seedlings.

2. Complying with supermarket requirements, the project arranged for the purchase of quality seeds from a leading seed supplier (Starke Ayres) and outsourced seedling production to an established nursery. The farm manager failed to collect the seedlings at the right time and when the seedlings arrived many were in poor condition. The farm manager promised farmers to get the seedlings replaced by the supplier, but this never happened and hence a substantial number of bad seedlings were planted.

3. Watermelon is a product the FHF know little about. There was no knowledge available on how to grow it nor other farmers to learn from. The farmers did not know if the crop was growing well, as it should or not, since they had not grown it before. They did not know how to use fertilizer on watermelon (e.g., one farmer used urea but this seemed to make the plants dry up). Farmers started using pesticides too late (i.e., at the time the pest appeared as opposed to in a preventive manner) or they did not use pesticides at all. The farm manager told farmers not to use the pesticides they were used to, but never indicated to them what the alternative pesticides were. *(continued on next page)*

4. The farm manager was hired for only one day a week (already too little) and farmers indicated that the farm manager was not even there for those eight hours per week. Farmers were for thus the greater part left to their own devices.

5. The watermelon suffered their next setback when heavy rains made them grow too fast and made the skin of the watermelons crack. This made that many of the watermelons no longer met Pick 'n Pay standards.

6. The small percentage of watermelons that made the grade, were harvested but got spoiled because transportation was not arranged in time. Only very few watermelons were marketed to the secondary market.

7. Farmers never received payment for the few watermelons that were sold because the revenue did not even cover the cost of transportation.

8. The farm manager had collected money from the farmers for the production of the seedlings, but not for the seed. In order not to add insult to injury, farmers were not asked to repay the seed cost, a loss that was mostly swallowed by the project.

Supply Program

Supply programs are set in a negotiation between the FHF group and Pick 'n Pay. These supply programs indicate the volumes and the frequency of delivery. Most of Pick 'n Pay's produce suppliers supply on a daily basis. A weekly supply schedule as was arranged for the FHF is a less common arrangement but one that better matched the supply capacity of the FHF. Planting plans are derived from the supply programs. Given the continuous supply requirement, farmers need to engage in staggered production, i.e., planting in weekly or monthly intervals to allow for weekly or monthly harvesting. Most of the FHF farmers have problems with growing just a few rows of a vegetable at a time as they were instructed to do by the farm manager because it seemed too little to them. One of the farmers stated he would prefer to work in plots of at least 0.5ha and then get the staged production by having the various farmers start at various stages. This may work as long as the farmers can overcome their tendency to all start planting at the same time they know from experience is the best time to plant (i.e., when climatic conditions make growing them easiest).

Financial Management

Pick 'n Pay pays its produce suppliers after seven to fourteen days. These payments are made directly into the supplier's bank account. Since there was no common bank account for the FHF, payments were made to the project team at ARDRI at the University of Fort Hare which managed the overall administration for the FHF project. ARDRI then paid out the farmers individually into their accounts. In part because of administrative bottlenecks at ARDRI and in part because some farmers did not have bank accounts, payments could take up to six weeks before reaching the farmer. This delay caused some farmers to switch away from the FHF project as their working capital capacity is very limited (farmers need the money for the next production cycle right away). Farmers also indicated that they never got any details on the sales, they were

just told to "go and check your account". There is now a joint account for the Burnshill Farmers Cooperative which would allow direct payments from Pick 'n Pay to at least the Burnshill FHF members and hopefully resolve this critical issue for the smallholder farmer. A factoring model whereby a finance intermediary pays farmers cash-on-delivery for a fee does not exist at the moment, but is being considered as a further potential solution.

5.2 Governance

Contract

In terms of the institutional structures that govern the transaction, it is the standards and not the contract that is the critical element. There is no detailed supply contract, but rather an agreed upon supply program that provides a guideline and sets out the trading terms in general terms (the contract is revised annually). For example, the program may call for a weekly supply of 200 pockets (10kg bags) of butternuts, but in practice it can be more or less (200 bags would be the anticipated average volume). The contract furthermore discusses the payment terms and the rebate structure. The contract thus indicates that there is a rebate which represents a 7.5% deduction from the agreed upon price (to cover breakages and promotions) and farmers are told to take this into account when negotiating the price. For the FHF there is no formal written document in Pick 'n Pay's supplier administration because of (1) the small volumes that are being supplied and (2) the verbal agreement that (given the small volumes at this time) Pick 'n Pay will buy all the volumes the FHF can supply, providing standards are met.

Standards

The transactions between Pick 'n Pay and its produce suppliers are guided by three sets of standards (product, pack shed, good agricultural practices). The strict implementation of the standards is not only demanded by the supermarket, but also by established preferred suppliers, who do not like it when Pick 'n Pay buys from other farmers who do not comply with standards.

Since 2005, Pick 'n Pay introduced a new rule that states that new suppliers must be audited on their implementation of good agricultural practices right from the start. Since the FHF were listed as Pick 'n Pay suppliers in 2002 they do not fall under this rule and so they are given additional time by Pick 'n Pay to upgrade. The audits are done by a third party once Pick 'n Pay's food technologist tells the suppliers they are ready. The audit has two components: pack shed standard and GAP standard compliance. The GAP standard is the EurepGAP standard in all but the name so that farmers do not have to get registered for EurepGAP which would be an unnecessary cost (if they are not exporting to Europe). The supplier pays for this audit which costs R3,000 to R5,000 for a small supplier. A small supplier is one whose turnover is less than R40,000 per month (the FHF fall in this category).

The supermarket understands (and accepts) that problems such as pests happen even for the best of suppliers, but wants to see that the effort is there on the farmer's side to minimize the occurrence of pests or other problems (hence the process nature of GAP). If there is a problem at the farm every other month, it would indicate a systematic problem and the farmer may get delisted. Pick 'n Pay's food scientist visited the FHF, inspected their pack shed and concluded

that the FHF are not ready for an audit. The FHF are not yet producing according to the codes of good practices (it is an ongoing process).

Sanctions for not meeting standards are not built into the contract between supermarket and supplier, but farmers can loose a product line or get delisted altogether when things go wrong too often and there is no sign of effort on the part of the farmer to avoid things going wrong. This is for example the case when the strike rate (i.e., the percentage of the planned supply volume that was actually delivered to Pick 'n Pay) was too low too often (e.g., less than 50%). Sanctions will also emerge when violations of food safety–related issues occur (too often). Since 2005 they have moved to a "three strikes and you are out rule". For example sanctions will be used if during three farm visits (by the supermarket) violations were found and warnings were ignored. On the other hand, if a farmer is doing everything right, they will get a bigger share of the required supplies (total order) or they get a better price than other suppliers (hence prices paid to individual suppliers are confidential).

The internal governance mechanism of the farmer groups has not really played into the above supply chain governance mechanism. Because the group structure is not yet used for marketing purposes, there are no penalties (within the group) for failing to stick to a marketing arrangement. In the case of a written marketing contract between the coop and Pick 'n Pay, an internal set of rules would be developed. For example, in order to keep the farmers in line, contracts will be signed between the individual farmers and the coop. If it appears that a farmer looks unable to live up to the supply contract for Pick 'n Pay as the coop intended him or her to (and he agreed to), the coop would expect that the farmer would find a solution. Farmers may fall short of contract stipulations because for example, they sell Pick 'n Pay earmarked produce to local traders, they do not have the planned volume ready in time, or the output does not meet quality standards. The contract between the farmer and the coop would then stipulate that the farmer would have to find a way to resolve the shortfall (even if they have to buy in the market) or be subject to sanctions. The sanctions would take on the form of fines or, if the offense would not be resolved after for example three months, exclusion from the coop. The farmers indicated however that if there would be a contract with Pick 'n Pay, it would be unlikely for farmers to fail to supply the planned volumes (other than because of act of God).

5.3 Technology

Land

Land access is not a constraint for the FHF. In the area 1,000 ha of arable land are available for crop farming (Bediako 2003). Small producers have left the region in droves to find better fortunes in the distant cities resulting in only 1/3 of the land in the area being utilized for agriculture. The relatively good availability of land facilitated the project as most of the FHF rent land (at R400/ha, year). The quality requirement of the primary market also requires that additional land is brought under production: if 1ha was needed to produce the volume required by Pick 'n Pay, then 1.5 ha was planted (in principle) under the assumption that two thirds of the output would be of a quality that is acceptable to Pick 'n Pay.

Seeds

Seeds are a critical input and Pick ‘n Pay requires their suppliers to use the best quality of seed. To guarantee the latter, seeds were at first bought by the project directly from the leading seed producer and farmers were supposed to pay back the costs of the seed which represents a substantial production cost. Problems with this payment mechanism have led to farmers now buying the seed themselves.

Irrigation

For farmers to meet the year-round supply requirement of the supermarkets, having irrigation is a condition sine qua non. The FHF benefit from the presence of an old irrigation system. The main irrigation lines run underground from the Sandile river-dam to the fields where a system of moveable overhead sprinklers linked to the standing pipes of the main line water the plants. The sprinkler system is owned by the farmer associations and cooperatives and is rented out to the farmers for as long as they are using it. Pumps are not required as the water pressure is derived from gravitation. The farmer-run Zanyokwe Irrigation Trust manages the irrigation infrastructure which is owned by the government. The trust is the custodian of the infrastructure and they also try to receive government funding to maintain or expand the main infrastructure.

There are various problems with the irrigation system. A first problem is how to deal with repair of damage. Such damage (e.g., leakage) must be repaired quickly to avoid negative impacts on production. However, various factors slow down response time. For example, when the damage is on a main line in the field of a farmer who is not using his land and so does not repair the main line, other farmers are not keen to pay for the repairs on another farmer’s land. Access to these other farm may not even be allowed. A related issue arises when repair needs to be done on the main line by the government, but it is not sure which department is responsible for the repair (the Department of Agriculture of the province or the Amathole municipality). A second problem is that the irrigation system does not always provide enough water. The irrigation system which is still not completely renovated is used not only on the farms but also feeds into to the municipal drinking water supply system.

Tractors

Timely access to tractors is a problem for the FHF group. There are three tractors in the area. The Zanyokwe Irrigation Trust received a tractor from the Ministry of Agriculture but it was not clear who was supposed to manage its use, leading to ineffective utilization. The Farmers General Services Association (FGSA), set up as a private company by a group of farmers in the area including one of the FHF farmers, has two tractors and rents them out to the farmers. The first tractor was bought with a commercial loan. The second tractor was given to FGSA in October 2004 in the context of the Massive Food Project, which therefore gets first access to this tractor. In part, FHF did not plant for Pick ‘n Pay because the FGSA tractors were also used in the Massive Food Project and so fields set aside for Pick ‘n Pay could not be ploughed or disked in time. So even with three tractors there is still a shortage as most farmers want to use tractors around the same time (September-December).

Transportation

Reliable transport is another critical issue. ARDRI provided university vehicles in 2003, but in the 2004, with a farm manager taken over the day-to-day operation from the university scientists, the system became unreliable. For example, on one occasion the harvest was ready to be taken to the market at a time when the University of Fort Hare was closed and nobody could be reached, so there was no transport. The impact of transport is large. If transport would be systematically on time farmers could probably sell 80% of their production (as opposed to in some instances 0% now).

Packing Shed

Another important technology in the FHF case is the packing shed. Essentially a construction from the homeland days, the pack shed used by the FHF has been renovated (ongoing) and currently has one storage hangar and several offices, some of which could be turned in to cold-storage, and bathrooms. Although currently not used, there is also a semi-open construction with a non-functional but repairable potato sorting machine which may hold some potential for integration in future upgrading strategies. However, these facilities are also used for storing seedlings and inputs (fertilizer) so that when inputs are there, there is no room for the sorting and packing and vice versa. The packing shed is also available to all the farmers in the area so that when the FHF upgrade the shed for their Pick 'n Pay supplies, other farmers will start using it for other activities as well. The pack shed and access to purified (food grade) water for washing the produce are two technologies specifically induced by the FHF project to meet the requirements of Pick 'n Pay.

6. Income Effect

According to a study completed by the University of Fort Hare in 2003, the average net income from farming in the Nkonkonbe area is approximately $800 to $1,200 per year[14]. The sale of vegetables represents approximately 90% of this income. We can therefore expect the FHF's access to new markets, if profitable, to have a strong, positive effect on their income.

In 2003, 48MT of produce were supplied to the various markets. About 6MT of this production (100% butternut), valued at approximately US$1,000, was supplied to Pick'n Pay. Most of the remaining 42MT of produce was sold in the secondary market (East London Fresh Market), and valued here at approximately $8,400. Given that this production came from the 30 FHF group members who were supplying at the time, they each derived an additional income of about $150 on average (assuming that costs represent 50% of revenues).

Even though income increases in the initial phases of the project have been small (e.g., 10-15% in 2003), the potential positive income impact of a well-functioning supply chain structure on the

[14] Welfare payments of various kinds are an equally important source of income for the rural households. These welfare payments are in the same order of magnitude as farming incomes (around $1,000-$1,500 per year). Over the years the rural households have build up a dependency on these welfare payments which undermines their willingness to invest and engage in farming.

FHF farmers can be dramatic. If the new supply program for the 2005 Summer season goes as planned, farmers could increase their gross farming income with $6,000 per year or roughly a six-fold increase[15]. It is this large income-growth potential which has kept farmers and supporting organizations interested in the project.

Furthermore, if the FHF can become the sole suppliers of watermelons to Pick 'n Pay for the November-December window, they will get premium prices. Farmer incomes can increase even further once they can shift to the more profitable phase II crops (potatoes) and phase III crops (onions, carrots) for the target market. As farmers reinvest part of their earnings into the upgrading and expanding of their operations and become fully compliant with Pick 'n Pay's various process standards, they can further expand to other domestic supermarkets as well as to the export market.

It should further be pointed out that when we compare the local produce market with the Pick 'n Pay produce market, the key incentive for the farmer is not a high price but the stable and reliable market. For example, butternut prices in local and secondary markets vary from R8 to R20 per 10kg-bag during the year (R0.8-2.0/kg), whereas the price at Pick and Pay is relatively stable at around R9 per 7kg-bag (R1.3/kg).

7. Development Program Implications

The case-study shows how even if one has a group of farmers who can produce quality produce at the upstream end of the supply chain and a supermarket chain who is willing to buy everything the farmer group can produce of that quality at the downstream end of the supply chain, it is far from evident that a supply chain will automatically emerge in between. Various supply chain elements, each of them vital, need to be in place to get products to move from the farm to the supermarket. While bringing all the required supply chain elements together in one business model is a challenging objective, the potential income-growth impact of a working business model that links smallholder farmers to dynamic modern markets is large.

The FHF case-study illustrates the need for a new approach to development projects at each of five successive project development stages: selection – research – design – implementation – monitoring.

First, in terms of project selection, the FHF case illustrates that smallholder farmers can access dynamic markets (supermarkets, processors, exporters) and that these markets offer important advantages for producers. Although the FHF have supplied only small volumes to supermarkets, its entry into this channel is a significant success in its own right. For the FHF, selling to Pick 'n Pay implies stable prices, stable year-round demand and lower transaction costs. These are the

[15] Assumptions: farmers with each 2ha producing various phase 1 crops (butternut, squash, pumpkin); average yields of 20MT/ha (across products); 2 Summer cycles per year; average sales price of R1/kg (across products and markets); costs representing 50% of revenues. Gross profit in US$ per farmer can then be calculated as: 2ha x 20MT/ha,cycle x 2 cycles x 1,000kg/MT x R1/kg x 0.5 x $0.15/R = $6,000 . Overhead costs (e.g., farm manager's salary, transportation costs, loan repayments) need to be deducted from gross income to obtain net income. Given a scale of operations of 30 farmers – 60ha, these costs amount to roughly 50% of gross income.

market conditions that allow farmers to plan and invest in upgrading their farms. The secondary market (the East London Fresh Produce Market) offers similar advantages over local markets which are characterized by erratic demand and volatile prices. The multiple market approach of the FHF group (i.e., first grade to supermarkets, second grade to the fresh market) has the potential to increase the farmer gross-income six-fold. The realization of this potential is determined not by the market (which is guaranteed in this case), but by the ability of the business model to supply the market.

Second, the FHF case illustrates that if smallholder farmer organizations want to remain in and grow in the supermarket channel, they must first understand the requirements of this market in fine detail. In order to understand the requirements (and the willingness to buy!) of an identified market, market intelligence must be gathered and the requirements of the market must be compared to the capabilities of the farmers. The ideal situation in terms of understanding the market arises when buyers like supermarkets are included in the development project right from the start (as was the case for the FHF). The buyer's requirements can be classified into product and transaction requirements.

Product requirements imply that the producers can supply a product that meets the various specifications as laid out in the supermarkets' product standards. With regard to the physical product itself, these standards are relatively straightforward. The FHF had no difficulty in demonstrating via samples that they are capable of producing the required quality and learned quickly from rejected supplies exactly what the boundaries of these quality specifications are. Even food safety standards do not pose major challenges at the product level. The product standard indicates that maximum chemical residue levels have to be in line with South African legislation but prescribes that only one sample per product line has to be tested each year. This lab-testing is not very meaningful given that farmers themselves are responsible for selecting the samples and for having them tested by independent laboratories. Although the product standard indicates random testing of samples by the supermarket, these tests are rarely done. Food safety is addressed mostly through process standards which we here classify under transaction standards.

The more challenging requirements are those related to the transaction. Transaction is here used in a broad sense referring to all the production, post-harvest and marketing activities farmers have to commit to in order to be able to transact with supermarkets. Supermarkets want consistency not only in quality and safety, but also in volume. Farmers must supply according to predetermined supply programs. In order to assure farmers are capable of doing so supermarkets demand compliance with various process standards. In the case of the FHF these process standards include (1) the good agricultural practices as laid out in the EurepGAP standard and (2) a set of practices laid out in a pack house standard. Compliance with these standards is strict, monitored through various audits and enforced through sanctions such as delisting. Beyond these production and post-harvest standards, and in the case of the FHF the most difficult to meet, are the requirements with regard to the management skills of the farmers. For example, staggered production plans, reliable transportation, constant communication with the buyer, clear traceability identification on packaging and smooth cash flow management are critical when selling to supermarkets but these proofed hard to reach objectives for the FHF.

Third, the case shows that in order to comply with the various requirements of supermarkets, projects must be designed so that farmers have full control over their production, post-harvest and marketing activities. This need for control follows from the combined effect of two key factors that make modern retail markets dynamic: competition and firm size. Fiercely competing food retailers, whose incentive is to maintain margins and profitability for their shareholders, need to constantly improve both customer value and the cost-efficiency of delivering it. And as supermarket chains grow, they increasingly have the capacity (through size economies and market power) to introduce various new technologies and management practices that give them control over the effectiveness and the efficiency of their customer value delivery. The need for control at the retail level trickles down along the supply chain to their suppliers (and the suppliers of their suppliers) in the form of the various standards listed above. For the FHF group, control over the supply chain was limited thus hampering compliance with the supermarket's procurement requirements and reducing product flows and revenues.

Fourth, loss of control can take place at many places in the business model and hence a holistic approach to project design, akin to Total Quality Management in manufacturing, is required[16]. In the "old" static market environment, one could improve one part of the supply chain (say improved seeds) and it would have a positive overall effect. Given that the new challenge not to improve an existing supply chain structure but to move to a new dynamic market supply chain, such singularly focused approaches are no longer suitable. The following are some examples of one particular part of a project becoming meaningless because of a missing other part in the case of the FHF: (i) provision of high price - high quality seeds but no good agricultural practices leading to weeds annihilating the seed's potential; (ii) production being ready and harvested on time but no transportation available; (iii) improving a pack house but having no access to it because it is used by other farmers for other purposes; (iv) developing a supply program but not having the farm management capacity to implement it.

In practical terms, a holistic approach means project designers need to map out the complete value chain in great detail from input provision to consumption patterns. Once all the required parts of the value chain are laid out, a gap analysis (to identify missing resources), a resource deployment plan (to identify provider and cost of missing resources) and a benchmark study (to allow progress monitoring) are required. In order to assure their commitment, farmers must be intimidly involved in each of these stages.

Fifth, the FHF case-study clearly demonstrates that the success of a business model is to a large extent determined by its ability to adapt through cumulative learning. Learning requires a systematic tracking of what has happened over time in terms of production, post-harvest activities and marketing. In the case of the FHF no such systematic collection of data occurred making it difficult, time-consuming or at times even impossible to analyze how the project is evolving. Given that development projects such as the one analyzed here involve groups of farmers, "keeping track" can quickly become a complex exercise and computer based solutions may be appropriate. The development of farm management software that can easily be adapted for use by various types of smallholder farmer groups may have a high-return on investment for

[16] TQM is a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, production, customer service, etc.) to focus on meeting customer needs and organizational objectives. A good introduction to TQM is provided by Ishikawa (1985).

a donor. When designed for maximum efficiency and information extraction, such a software package would not only facilitate planning and budgeting but could also provide a wealth of information for detailed project monitoring and evaluation. This is especially important for pilot projects.

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Case Studies of Farmer Organizations Linking to Dynamic Markets in Southern Africa:

Case Study 2: Lutouw Estate Ltd, South Africa

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1. Introduction

This report presents a case-study that documents and analyzes how the rural poor can be integrated in South Africa's wine industry. The entry of previously disadvantaged groups (PDG) in South Africa's rapidly expanding wine industry after the end of Apartheid has been an uphill battle from the start (Weatherspoon et al. 1997). Many empowerment projects have been implemented since the general elections of April 1994 with varying degrees of success. The thrust of these projects has been under land reform and driven by policies designed by the Department of Land Affairs.

A recent study indicated the critical role of social dynamics, more specifically the behavior and capacity of PDGs needed to overcome mistrust of commercial farmers in mentorship (skills transfer) by the latter in equity schemes. This indicates that social capital is even more important than access to financial capital and physical assets (de Lange et al. 2004). The case of Lutouw Estate (LE), presented here, illustrates the economic and social dimensions of a successful empowerment scheme. LE is a wine grape farm located alongside Olifants River near Lutzville in the Western Cape Province.

The project was conceptualized within the framework of a profoundly transformed South African wine industry which saw a shift from a single market organization (KWV monopoly) to a liberalized, competitive market and an opening up of export markets after 1994. Land reform in the wine industry has, to a large extent, been driven by the cost of land. It is and will possibly be impossible to set up a project like LE in renowned wine areas such as Stellenbosch or Constantia. The price of land in these areas is driven by lifestyle rather than economics. Therefore the model aimed for here was one that looked for soil and water at an affordable price as well as a climate that is conducive to growing premium quality grapes.

The Lutzville area is such a high potential (but underdeveloped) production area for fruits and vegetables due to the presence of (1) relatively cheap land and water, (2) varied micro-climates that facilitate extended production periods (counter-seasonal to Northern hemisphere markets), and (3) experienced farmers who can act as mentors (2004).

This report is structured as follows. In the next section we briefly discuss the analytical approach taken. Section 3 describes the establishment and evolution of LE over the period 2000-2005. Section 4 presents some background on the markets supplied by LE with a special emphasis on the procurement systems in these markets. Section 5 describes the business model that has emerged. Section 6 looks at the economic and social impact of LE on the involved farm workers. Section 7 presents the main implications for development programs that can be derived from the LE case study.

2. Methodology and Analytical Framework

This report represents a single explanatory case study (intended to feed into multiple explanatory case-study research). The case-study presents data bearing on cause-effect relationships, namely, it explains how a group of farm workers succeeded in becoming partners in a modern market channel. The case study is the method of choice when the phenomenon under study is not readily

distinguishable from its environment (Yin, 2003) which in this case are the emergence of a group or farm workers and the market environment it operates in.

Theory is central in explanatory case-studies (the objective of these case studies is research and not teaching or dissemination). Theory helps in the selection of the case(s) and in the selection of the variables. In this case we are guided by the analytical frameworks presented in figure 1 (static perspective) and figure 2 (dynamic perspective). From a static perspective, the nature of the business model (supply chain architecture) is the result of the product and transaction attributes of the specific channel in question (modern vs. traditional) on the one hand, and the capacities of the agricultural producers on the other hand. Within a given business model, we distinguished three key dimensions: technology, institution, organization. A dynamic perspective implies models with positive or negative feedback loops. The sustainability of business models, and beyond that, the upgrading of business models, is here modeled as the outcome of a positive feedback loop from performance (customer value creation) to governance structure (contract) to profits to upgrading (profit reinvestment) and back to performance.

Figure 1: Static Perspective

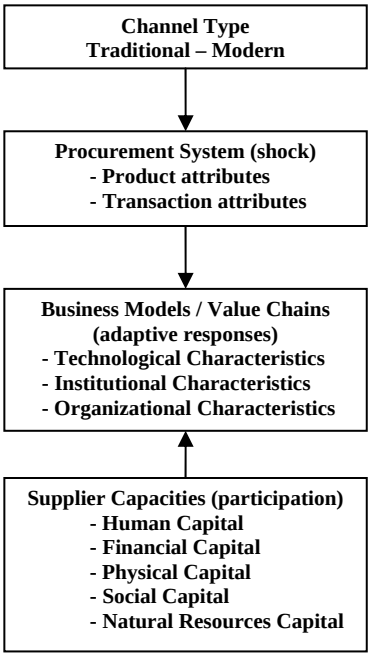
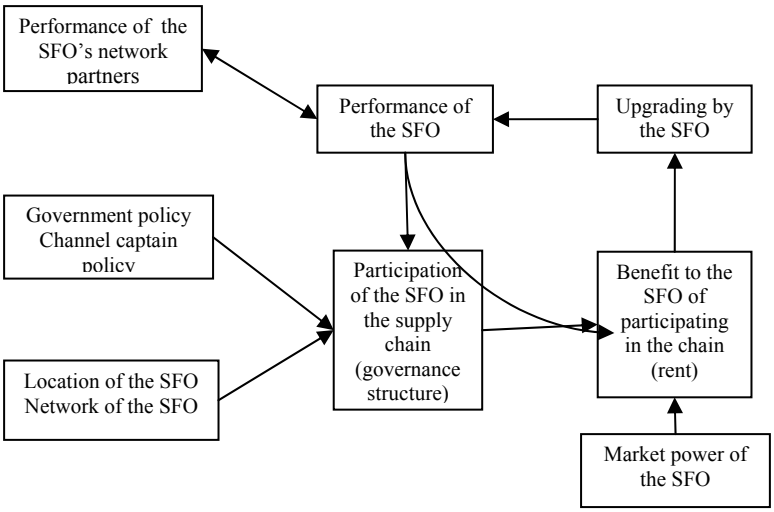


Figure 2: Dynamic Perspective



Case-studies that look at contextual variables add rich detail to the analysis. However, for internal validation of the findings, multiple sources of evidence are required (triangulation of data). The analysis presented in this report is based on secondary information, field observations and (mostly) on key informant interviews. The following people participated in semi-structured interviews using partially overlapping question sets:

- Suzan Richards, pack shed manager, Chair of Umaza
- Samuel Saxon, farm worker, Umaza member
- Truter Lutz, Managing Director of Lutouw Estate
- Johnson Matika, farm worker, Umaza member
- Lydia, farm worker, Trustee of Umaza
- Joos Maritz, shareholder in Lutouw Estate
- Marthinus Saundersen, formerly with SAWIT
- Marlies Coetzee, Administrative Officer Lutouw Estate
- Rydal Jeftha, General Manager, Thandi Wines
- Abdullah Parker, Catchment Manager DWAF, Director of Lutouw Estate
- Ernst Le Roux, Group Manager Grape & Wine Supply, Distell
- Gus Pickard, consultant working with Umaza
- C.D. van Zyl, Loan Officer, Standard Bank Vredendal

3. Background and Context

3.1 Conceptualization: An Entrepreneur's Vision

Lutouw Estate Ltd (LE) was conceptualized in 1999, a period when commercial white farmers in the Western Cape were beginning to get challenged from many angles: experiencing severe droughts, feeling pressured to sell part of their land under the government's post-apartheid land redistribution policy, markets preferring to buy from BEE suppliers[17], and so on. As the Broad

[17] The Broad-Based Black Economic Empowerment (BBBEE) Act of 2003 established a legal framework to assist South Africa's socio-economic transformation from one characterized by "vast racial and gender inequalities in the

Based Black Economic Empowerment (BBBEE) legislation was still debated and not yet in place in 1999, the project was driven mostly by business reality and principles as well as by a desire to overcome problems experienced by land reform projects since 1994. The shareholders agreement, which is quite often neglected by commercial enterprises, is unique. Some of the commercial farmers suffered, others used these developments to their advantage.

Truter Lutz and Jan Louw, the key driving forces behind LE, certainly belong to the latter category. Both are entrepreneurial farmers in the Lutzville area where LE was established (300km north of Cape Town). Noticing the availability of cheap land (dry land or 'veldt' used for extensive agriculture such as livestock grazing) and surplus winter water (from winter rains) from the Olifants river flowing in the Atlantic Ocean near Lutzville, the two farmers had the idea to establish a farm for intensive agriculture (wine, vegetables) by building a large dam along the riverbanks. The first step was to buy the land. Through Le Monde Boerdery Trust, a 50/50 joint partnership, Lutz and Louw gained access to 420ha of land along the river near Koekenaap, about 5km from the Atlantic coast (300ha through ownership, 120ha through a rental agreement).

The next challenge for the two farmers was to secure the water rights. Water management in South Africa is the mandate of the Department of Water Affairs and Forestry (DWAF). Almost all farmers in the northern part of the Western Cape get their water through an extensive canal system that is fed from the Clan William dam on the Olifants river (90 km from Lutzville). Farmers buy the right to use a certain volume of the dam's water on their farms and this volume is inspected by DWAF. Although the canal system did not reach the farm land bought for LE, water use rights still needed to be accorded by DWAF[18]. DWAF was willing to provide the water rights, but only if the project benefited previously disadvantaged group (PDG) in line with the legal environment[19]. The initial proposal of DWAF to include PDG as a cluster of small farms was discarded in favor of an equity share structure for one large farm because the latter was considered to be more viable from an economic perspective.

In order to facilitate the participation of a PDG, another organization, the South African Wine Industry Trust (SAWIT), was brought in. SAWIT is an organization established in 1999 by the South African government to advance transformation of the wine industry and promote South African wine and spirit exports[20]. More specifically, SAWIT's mandate is to promote

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distribution of, and access to opportunities, wealth, income, skills and employment" to one where historically disadvantaged South Africans are economically empowered through changes in ownership and management structures, skills development, facilitated market access and selective investment strategies. BEE became BBBEE only later to correct the bias toward well-to do blacks. A BEE enterprise is an enterprise with representative levels of participation at, ownership, management or control by black, colored or Indian South Africans. The notion of linking farm workers as shareholder in farms where they can work with experienced commercial farmers as mentors fitted perfectly in the human resource development aspects of BEE. BEE policy furthermore stipulates that 50% of the total value of all procurement by firms should come from BEE companies by 2010 (70% by 2014) creating great market opportunities for a company like LE.

[18] However, since LE does not use the government operated canal system, it did not have to pay the tax levied on water use and used to fund the canal system's maintenance.

[19] 1998 National Water Act, no.36, section 27b: "In issuing a license the responsible authority [DWAF] must take into account all relevant factors, including the need to redress the results of past racial and gender discrimination"

[20] SAWIT was created with an initial funding of R363 million ($50 million) received from KWV. Established in 1917, KWV was an agricultural co-operative society with a government assigned role of wine industry regulator. In

empowerment, assist in the settlement of new farmers, support the upliftment of farm workers and farm worker communities, help new entrants to the industry to market their wines and ensure they have access to the extension services available to them.

The selected PDG consisted of the farm workers at Up-to-Date Tomatoes (mostly) and Jan Louw farms in the area. The former is a commercial farm with its own packing shed which represents Truter Lutz's main business interest. Farm workers were first asked if they had an interest in joining the project. Eligibility criteria included being in the 25-55 years age bracket, having a good conduct record (no criminal record), having had at least several years of experience on the farm and the number of dependents in the household. At first the farm workers showed little interest in joining the project, as they did not trust the proposal, thinking that in the end they would not benefit from it (*"It will never happen!"*). Their on average low level of education and management experience implied that it was difficult for the farm workers to fully understand the nature of the opportunity and the risks. Especially the notion of being shareholders and taking a long term perspective (reinvesting in the farm first and receiving dividends after five years at the earliest) was difficult to understand and accept for the farm workers. An independent consultant, Gus Pickard, was brought in by DWAF to explain the nature of the project to the farm workers, to assist them more generally with the social aspects of the project and to represent the farm workers' interest in various meetings. After several months of discussion, 27 farm workers were found willing to take the chance. Assisted by SAWIT and Pickard, these 27 farm workers created Omaza, a workers' trust, in December of 1999.

The three parties (Le Monde Boerdery Trust, DWAF, SAWIT/Omaza) then negotiated the terms under which Lutouw Estate was to be created as a commercial farm. Each party brought its own contribution: Le Monde Boerdery Trust brought land and knowledge, DWAF brought water rights and SAWIT, representing Omaza, brought its expertise in integrating PDG in the wine industry. The valuation of the land and water rights resources were key points of discussion in the negotiations. Since apart from the land and the water, there was a need for financial capital to develop the farm (mainly consisting of the construction of a large dam and land preparation), all three parties brought financial capital to the table. Due to a cash flow problem at the start-up, a fourth party, Oliphant's Beleggingsgroep (OB), was brought in as an investor. OB is a small investors' club with close ties to farmer Lutz. Their interest in LE is purely as investors.

The organizational structure that emerged for LE was that of a limited liability company[21] with three shareholders: Le Monde Boerdery Trust with 50%, Laritza Investments No. 102 with 40% and OB with 10% (figure 1). Laritza is a shell company established by SAWIT through its investment arm DEVCO, to warehouse the future interest (share) of Omaza. The latter was not given a direct share in LE due to (1) the fact that it was not a grant but an investment interest to be bought out over time by Omaza and (2) their assumed inability to protect their own interest in this unfamiliar setting. A letter of understanding between SAWIT/Laritza and Omaza was developed, detailing how future dividend payments against Laritza's 40% share were to be paid

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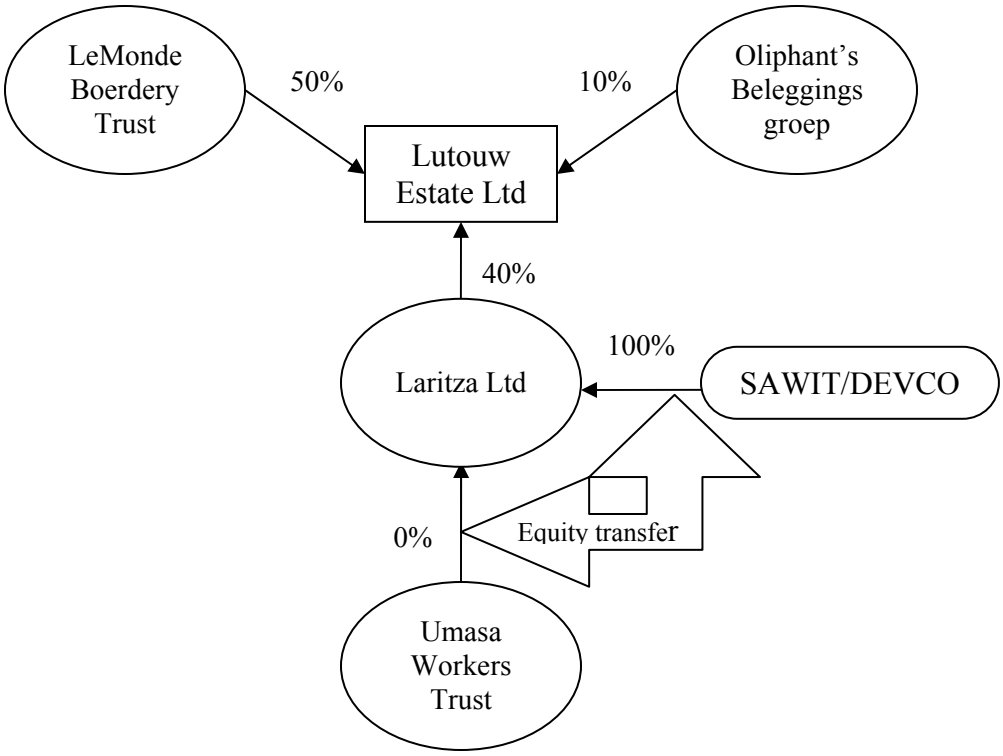
1997 it was converted into a regular company and had to repay the government subsidies it had received over the years. Part of this repayment was used to fund SAWIT (Arellano Vaca 2003, Weatherspoon and Alade, 1997). More information on SAWIT can be found at www.sawit.co.za.

[21] Lutouw Estate Ltd was incorporated on November 29, 1999. Its first year of operations (book year) ran from March 1, 2000 to February 28, 2001.

to Omaza. The latter would then use part of these dividends to pay-off the cash part in SAWIT's investment in LE (R2.2 million).

Figure 1: Lutouw Estate's Equity Structure



The start-up capital for LE amounted to R7.5 million ($1.2 million). Each shareholder made a contribution relative to their share. In the case of OB this contribution was entirely financial (R750k). SAWIT/Lartiza's contribution consisted of R2.2 million in cash and the water rights (valued at R800k). Le Monde Boerdery Trust's contribution consisted out of a land contribution and the construction cost for the dam funded by Truter Lutz and Jan Louw while negotiations were taking place (land and dam were valued at R3.7 million). For accounting reasons, these contributions were not in the form of equity, but rather as unsecured loans to LE (leading to a negative equity in the balance). In order to protect part of its investment, SAWIT had build in a security measure (a rule stating the commercial farmers would buy out their share for R1 million) to get at least R1m back in case the farm goes bankrupt.

DWAF gave water rights to LE for 300ha over 40 years with the possibility for renewal[22]. With the land, these water rights are now a key capital asset of LE. DWAF also provided a grant of R1.2 million. This grant was initially intended as a part of the R2.2m cash joined contribution by

[22] The amount of water that can be used by LE was set at 2.7 million cubic meters per year (which is the water needed for 300ha). Unlike in the standard canal system, DWAF does not check the amount used since there are no users (farms) at this time between the point where LE takes its water from the river and where the river runs into the sea.

SAWIT/Laritza and DWAF, but because it arrived too late, SAWIT made an extra contribution (for R2.2 million total contribution). The DWAF grant was then deposited directly into Omaza's account and used mainly for a short term loan of R600k to LE in 2001 to address critical cash flow issues.

The described setup benefited all the parties. The commercial farmers: (1) got access to the water, increasing the value of the land they had purchased, (2) could realize their idea at a low finance cost while still keeping control over 60% of the shares (50% directly and 10% via the OB share which consists of investors related to the commercial farmers), (3) got a motivated workforce, and (4) increased their market opportunities because of the inclusion of a PDG. The thinking behind the design and benefit for SAWIT was to have a model with commercial farmers with a vested interest. One of the problems with land reform over the 1994-99 period had been a lack of interest from commercial farmers for land reform projects in which they hold only a small interest. The shareholders agreement made provision for the PDG to get first right of refusal when anyone would like to sell shares. Therefore the put option and the protection of PDG rights as well as commercial rights, as mentioned, made the project unique in 1999 and will most probably score higher that most projects conceptualized with all the current BBBEE legislation in place. Through LE, the farm workers became shareholders and got more management responsibilities. DWAF could make a great contribution toward its objective to help PDG at a limited cost (partially consisting of granting use-rights to water that was flowing out to the sea otherwise). SAWIT also had a great opportunity to apply its resources towards its objective of helping a PDG in the wine industry.

3.2 Growth

The initial R7.5 million in shareholder contributions was complemented by commercial bank loans (R1.5 million) and short term financing such supplier credit and bank overdrafts (R1.5 million) in order to finance the development of the land and the purchase of farm equipment. The 80ha dam was built in 2000 at a cost of R3.2 million. R1.7 million was used (over the period 2000-2005) to begin bringing 100ha of land under drip irrigation for the vines. The commercial bank loans were secured by the land (now LE's asset) and additional collateral provided by the commercial farmers, Lutz and Louw. The farm's R10 million non-current asset value was (in year 1) divided roughly evenly over land and land improvements. The latter focused on the establishment of a vineyard (the farm's main focus) and consisted mainly out of the construction of the dam and the planting of the first vines (in 2000).

Product-wise, LE initially (2000-2003) focused on the production of vegetables in order to have a cash inflow while planting vines of noble grape varieties at an average rate of three to four blocks of 5ha per year. As the vineyards got into production over the years[23], however, the production of the riskier vegetable production gave way to the more stable incomes from selling wine grapes and renting out land.

[23] Vines start to produce in year 3, get to full production in year 5 and can be harvested for periods of 25-40 years before they need to be uprooted. This is also why commercial loans, like those obtained by LE, usually also have a moratorium of three years on the principal.

People-wise, the collaboration of between the various stakeholders has not been without friction. At the beginning there was mistrust between the white commercial farmers on the one hand and the black farm workers and SAWIT representatives on the other hand[24]. This was mainly due to the fact that under apartheid these groups lived in their own worlds, with only limited interaction or even interest, and with each group having stereo-typical ideas about the other group. However, over time the parties got to know each other better. Understanding, respect and even admiration grew on both sides.

For the stakeholders of focal interest in this study, the resource poor farm workers, the project has been very challenging. The notion of being shareholders was hard to grasp for farm workers with little formal education and even less experience in business matters. From a social point of view, it is hard for them to understand how they can be treated as ordinary workers on a farm which they, in part, own. It is even harder for them to understand how a farm which has sold so much produce cannot pay them any dividends, leaving them with their pre-shareholder status wages. Many beneficiaries saw in this a confirmation of their initial mistrust in the deal. Some lost interest and due to various related reasons (e.g., getting fired from LE for arriving drunk at work, being thrown in jail for stabbing another person with a knife), the number of beneficiaries dropped from 27 at the start in 2000 to 22 in May 2005 (17 of which are men, 5 are women). More farm workers were at the brink of quitting Omaza, especially given the absence of any material benefits over the five year period they have been involved in LE. That they did not do so is mainly due to the key support of Gus Pickard, the independent consultant assisting and encouraging the farm workers. Gus Pickard is a son of farm workers himself and so has a personal understanding of the challenges at hand.

3.3 Current Situation and Future Outlook

Current Situation

With land access to 420ha (300 owned, 120 rented with an option to buy) and with 70 permanent farm workers (22 of which are Umaza members) and 130 additional seasonal workers, LE is a big farm by local standards. Of these 420ha, 300ha can be irrigated in a good rainy season. This large size creates many opportunities and allows LE to go further than most other farms. By May 2005, 83ha were planted under wine grapes (although only 58 were in full production) and 15 more ha are expected to be planted with vines before the end of 2005. The remaining land is either idle or rented out for vegetables (LE's large land-holding allowing for crop rotation in the renting scheme).

The main constraint in developing the farm to its full potential faster is access to investment capital. First, banks will not lend more than a certain amount relative to the current value of a legal entity (in the case of LE, this maximum amount is currently R7-8 million), even if it is clear that the return on investment would be higher than the interest on the loan (in the case of LE, roughly 15% vs 10%). Consequently, old loans must be paid off before new loans can be obtained. Second, any additional equity investments have (per agreement) to come in according to the current equity distribution. Given its limited resources, Omaza would not be able to contribute its share (40%) of new equity and hence using equity to fund a faster expansion of LE

[24] "Black" is here used in the BEE meaning of black, colored or Indian South African citizens.

is not an option. Especially given this last limitation, LE had no money to make mistakes and so opted for a safety-first strategy during its first five years (i.e., focus on reliable income streams from grapes and land rental).

Although currently struggling with some cash flow problems (not unusual for vineyard in its first years), LE appears to be one of the most successful BEE projects in the Western Cape or even the country, at least in financial terms. Its revenue base grew from R443k in 2001 to R6.5 million in 2004 while the value of the farm has increased from R10 million in 2001 to R16 million in 2005. Dividends have not yet been paid to shareholders as all earnings were used to pay-off loans and reinvest in the farm. Dividends are expected somewhere between year seven and year ten. Normally a wine farm breaks even in year seven when most of the loans are paid off. Once dividends are paid out, Laritza's dividends will become available to Omaza Trust.

The economic success of LE is reflected in the position taken up by the different shareholders. OB, initially involved with a short term investment focus, has no plans to sell its interest in LE now that they see that the value of the farm is increasing rapidly and the project has survived the stormy start-up years and has now entered calmer waters. SAWIT's loan security measure will not be used since the farm has increased in value and is now really taking off. The loan administrator of the commercial bank that provide the loans to LE considers LE a good project and has confidence in its creditworthiness.

A key reason for its success is the unique composition of the stakeholders: farm workers with knowledge of wine production, business-savvy commercial farmers, an organization (SAWIT) with managerial skill and network of contacts in the wine, and the presence of experienced consultant who has assisted the farm workers' trust throughout the first five years of its existence.

Future Outlook

In 2005, an important point of discussion amongst the stakeholders concerned a redistribution of LE shares suggested by SAWIT which would get the farm workers' trust a 50% stake in the company. This would make LE a BEE firm according to current government policy. Gus Pickard, the consultant hired to assist the farm workers, is against this proposal, feeling that it would take the incentive away from the commercial farmers to remain seriously involved in LE. Loosing the expertise of its mentors would be detrimental for the farm (loss of the dynamic force and at the same time the anchor, behind LE).

A second alternative that has been considered, is to use part (25ha) of LE for Omaza to set up their own farm. Here again, the consultant felt this would not be feasible as Omaza does not have the working capital funds nor the human capacity to make it work.

Hence, a third alternative is being worked out whereby 25ha of established vineyard are rented out for 15 years at an up-front payment of R2.7 million to an outside group, allowing LE and thus Omaza get additional cash inflows. This outside group would be 100% black owned, but the identified blacks would be far more educated (relative to the farm workers), including a teacher,

a former mayor of a nearby town (Vredendal). After 15 years LE can still use the vineyard for 25 more years.

4. Various Markets and their Procurement Systems

Product Strategy Choice

In general, as long as buyer requirements are met, finding a market to sell to is not the problem. This is especially the case for a BEE company like LE. One of the interviewees summarized the new economic reality of South Africa succinctly as "the black guys get the contracts". LE's market options mainly depend on its production and marketing capacities and its product strategy choices. Although the farm has a main focus on the production of noble grape varieties (for wine production), vegetable production was undertaken during the first four years in order to generate a cash inflow stream. As the grape vines came into production, LE shifted away from the riskier production of vegetables to grape production in combination with renting out land for vegetable production, two relatively stable income streams[25].

Vegetable Markets

Vegetables produced by LE (over the period 2000-2003) included tomato, cabbage, cauliflower, pumpkin, butternut, gem squash, sweet potato and Irish potato. Some of these products (e.g., sweet potato) were exported to Europe, but this became unprofitable due to the appreciation of the Rand. Tomatoes (for the local market) are the main product (the Lutzville region is a key tomato growing area). These tomatoes were of a processing variety and the first grade quality was supplied to a canning processor in Durban. When LE shifted from own production to renting out land to Up-to-Date Tomatoes (farmer Lutz's main business) for expansion of their vegetable production, the variety shifted to a fresh market tomato. The first grade quality of the latter is supplied to the Cape Town distribution center of Shoprite, South Africa's largest supermarket chain. Secondary quality is sold to local supermarkets, the fresh market in Cape Town or (if prices are right) to South Africa's largest fresh market in Johannesburg (Up-to-Date has its own, large cooled trucks to take the produce). Over-ripe, "throw-away" quality is sold to a local processing plant (All Gold brand) for tomato paste production.

With little change in the operational aspects, the shift from own production of vegetables to renting out land for vegetable production implied a shift in market risk from LE to Up-to-Date Tomatoes Farm. Profitability in tomato production critically hinges on being able to capture price peaks during supply shortages. This implies that tomato production is a risky and not really profitable business if the farmer has insufficient resources to assure continuous, year-round supply for several years and so may not be "in the market" during price spikes. In the case of LE, tomato (vegetable) production was considered too risky from a cash flow point of view, given that 40% of its shareholders (i.e., the farm workers) do not have the deep (financial) pocket to bring in the required cash flow (and hence would not be able to match the commercial farmers' contribution).

[25] However, the fact that currently the land is rented out almost exclusively to one firm, Up-to-Date tomatoes (Lutz's main business), implies the risk of a strong dependency.

Wine Grape Markets

Grape production and marketing is far more predictable than the production and marketing of vegetables, both in terms of yields and prices. The first grapes were planted in 2000 and the first (small) harvest took place in 2003. In 2004 the first blocks came under full production (2004 production was 405MT). By 2005, 58ha of vines are under full production (2005 production was 686MT). Sauvignon blanc is LE's main variety, but the farm also produces smaller quantities of cabernet sauvignon, pinotage, shiraz and cabernet franc. By 2008, when LE will have the aimed for 100ha of wine grapes in full production, it will have a relatively reliable cash inflow of about R5 million from grape sales alone, a comfortable base to service loans from[26].

Furthermore, LE's grape production mainly consists of a variety (sauvignon blanc) and quality level (A+, the highest level) for which there is a readily available market (demand exceeds supply)[27]. As a direct result, LE has been able to get good contracts with top wine cellars such as Vergelegen which pay top prices (R6,000/mt in 2005) for LE's sauvignon blanc. Other grape varieties and production of lesser quality are sold at a far lower prices (down to R1,000/mt) to West Corp International, a local cooperative which markets various wine labels in export markets. The lower price is partially off-set by the lower transportation costs (West Corp is located at about 40km from the farm, whereas most of the other buyers are located closer to Cape Town, 325 km from the farm). Two buyers, Distell and Thandi, are discussed in greater detail here because of their more intricate relationship to LE.

Distell (Interlinked Contract)

Distell is an alcoholic beverages company with three product lines (shelf-ready wines, brandies, ready-to-drink (RTD) products). The company is headquartered in Stellenbosch and has 18 processing sites across South Africa. A public company listed on the Johannesburg Stock Exchange, its board is controlled by KWV and SABMiller. Although they are fully vertically integrated (from grape to glass) for one of their product lines (Nederburg wines), Distell is mainly a processing company, adding value to grapes and wines supplied by its 120 suppliers. Ninety percent of Distell's grapes are bought as wine, not as grapes. Grapes are only bought for the top quality wines, not for the cheaper wine, brandy or RTD products.

Distell buys (in grapes or wine) 40% of South Africa's grapes (it's the market leader by volume) and had a 2004 turnover of R5.7 billion. The company is mostly focused on the domestic market (e.g., 85% of its wines are sold locally). However, with its domestic markets shrinking rapidly under heavy competition, the company expanded its wine export sales. Wines sales outside Africa grew with 34% in 2004, while sales in the African region grew 54% in 2004 (Distell Annual Report 2004).

[26] Currently LE has 97ha under grapes of which xxha under full production. Turnover calculated as followed: 100ha x 10mt/ha x R5,000/mt = R5 million. Yields and prices will vary to some extend based on climate, grape variety and market conditions. An average price of R5,000/mt is high but justified based on the high quality level of LE's sauvignon blanc grapes.

[27] Unlike for noble red varieties such as Cabernet Sauvignon, prices for Sauvignon Blanc have been increasing steadily since 2001. In 2004, the average price per MT was 42% above the 2001 price (www.sawis.co.za).

Under the current government policy, BBBEE score cards are becoming key to South Africa's agri-food businesses. These score cards amongst others measure what percentage of supplies comes from BEE companies. With most of Distell's purchase cost coming from packaging materials etc. (not grapes/wine), Distell does not necessarily have to buy 50% of its grapes or wines from BEE companies to score well. Nevertheless, the company strives to procure from BEE wherever possible (i.e., wherever its requirements can be met at competitive prices). It is important to note that Distell is not interested in buying from subsidized projects, as these are perceived by Distell as having a doubtable long-term viability.

Basically Distell looks at three different BEE supply models. The first model is one where Distell is directly involved in the project. The best example here is a huge 1,500ha project Distell is developing for volume wine grape production (40mt/ha, for brandy production) combined with table grape production (for diversification) in the Norhtern Cape. The second model is one where Distell owns a share in the company, but is otherwise not involved. An example here is the Tukulu brand. Established in 1997, Tukulu (51% in the hands of a BEE group, 49% in the hands of Distell) is a 300ha vineyard in Darling. Tukulu is the sole exception to Distell's strategy of producing only under its own brand names. Tukulu has its own brand and "single estate" grape sourcing although the wine is made by Distell. The third model is one where Distell facilitates the financing but does not have share in the supplying farm. LE falls in this third category.

LE has a contract for 37ha of sauvignon blanc with Distell. The latter's need for and the current lack of supply of high-quality sauvignon blanc grapes led it to not only offer a high price but also provide a credit facility to LE. Taste and chemical analysis of LE's sauvignon blanc showed the grapes were of A+ quality. Distell blends LE's grapes with grapes from two other vineyards in the production of their top-of-the-line Fleur du Cap Unfiltered brand[28].

The contract provided LE with a R3 million loan to develop 37 ha under sauvignon blanc (at R80,000/ha). The actual funding came in the form of a commercial bank loan to LE, assured by Distell which implies (due to Distell's market power) a lower interest rate of 85% of the prime rate (the latter was about 10,5% in May 2005). From year three (when the grapes will get into production), this credit will be paid back to Distell in grapes which, given their quality, will be valued at R5-6,000/mt (i.e., at the high end of Distell's price range of R2,400/mt to R5,500/mt in 2005)[29]. Contractually, the entire harvest from four specific 5ha blocks is to be supplied to Distell from year 3 to year 15 (the contract period). Of these supplies (estimated at 10mt/ha), 50% will be used to pay back the loan while the other 50% will be paid for in cash by Distell[30]. The cash payment from Distell and the sale of the harvest from the remaining 17ha (to other buyers) assures positive cash inflow for LE. This credit facility is a further strong sign that LE is on the right track (if LE goes under, Distell would loose on this deal as well). The Distell contract thus not only provides an innovative financing tool, it also secures a market for LE for 15 years.

[28] "Unfiltered" is the marketing term used by Distell for a wine for which the best quality of grapes is used and for which the quantity of bottles produced is limited intentionally. The wine is processed just like any other wine.
[29] As long as LE succeeds in getting its vines in production, the loan is easily serviceable: the principal of the credit (R740,000) is comparable to the annual gross margin value of the harvest at full production (0.4 x 37ha x 10mt/ha x R5,500/mt = R814,000, assuming variable production and marketing costs equal to 60% of the sales value).
[30] Distell indicated it would buy all of LE's sauvignon blanc grapes if LE would let them, but LE did not want to be dependent on just one buyer.

Thandi (Value Adding)

Thandi is a 200ha commercial farm started in 1995 in the Grabouw area (50km south-east of Cape Town) as a partnership that involved a commercial firm[31], a community of farm and forest workers (the Lebanon Fruit Farmers Trust, LFFT), a parastatal (SAFCOL, which is focused on forest management), and a commercial farmer (Paul Cluver). The initiative was intended to provide an economic alternative for farm workers on Paul Cluver's vineyard and especially for forest workers who were loosing their job as SAFCO was closing down its activities next to the Cluver vineyard. Paul Cluver donated 14ha of already productive wine so that there would be a cash in-flow from the start.

Over time, Thandi diversified into a firm with three strategic business units: fruit production (apple, pears, etc.), grape production (both wines and fruits are marketed under six different Thandi labels with the assistance of the commercial partners Capespan and Omnia) and a restaurant (the farm, located 90km South of Cape Town not far from a coast line offering whale watching, has tourism potential). With regard to its wines, the focus is on high quality wines produced and marketed as fair-trade labeled products to supermarkets in the UK (Tesco)[32]. Thandi's wine are made from its own grapes (30ha) as well as from grapes from selected other high-quality vineyards (including, since 2004, LE). The wine is made and marketed by Omnia (Thandi's General Manager is on Omnia's payroll).

Initially, LFFT, Vinifruco (now Omnia) and SAFCO, each had an equal 33% shareholding (Paul Cluver was not a direct shareholder). In october 2004, SAFCO sold its share to LFFT, who now owns 66% of Thandi. In order to assure supply, LFFT plans to sell its newly acquired 33% to five new shareholders[33]. One of these five is LE, which would buy 7% of Thandi. The similarities in origin, organizational structure and market focus (the high-end of the market) and the existence of a sales relationship are the basis for a natural fit between the two companies. For LE, the participation in the Thandi brand not only further secures the market but also allows the farm to move into value-adding.

There are however two differences between LE and Thandi and two related sets of criteria need to be addressed to make to make the LE-Thandi partnership feasible. First, to address BEE criteria, a new company needs to be set up in which Omaza has a 51% share (the other LE shareholders would have 49%) as only black-owned companies can become shareholders in Thandi (LE has only 40% black ownership). Second, LE needs to address Fair Trade criteria. LE

[31] This commercial company was Vinifruco at first. Vinifruco joined in 50/50 partnership with another company to form Omnia Wines. Cape Span, which owned 50% of Vinifruco and now owns 25% of Omnia Wines, is a key partner in the Thandi project on the marketing side.

[32] There are basically 4-5 big buyers of wine in the UK and all the cellars are competing for those same buyers. Thandi's marketing volumes are still small (e.g, 50 6-bottle crates per week to Tesco) and supermarkets want bigger volumes (they do not want to deal with 30 suppliers from SA; hence move to consolidation in SA). Thandi is currently moving into step three of its three-step strategy: (1) get quality right; (2) use quality to win medals and build a reputation; (3) build volume.

[33] For example, Thandi has already been supplied for two years by LE (25mt in 2004, 20mt in 2005). They would like to get 50mt or more from LE, but the latter had ongoing marketing deals with other buyers that stood in the way.

has been inspected on its Fair Trade criteria (in the Thandi deal context) and some (minor) changes still need to be made. Once LE is Fair Trade certified, they will receive an extra fair trade bonus (0.05 Euro/kg).

5. Farmer Capacities and the Emerging Business Model

We distinguish three key components to the business model used by the farmers to link up with the supermarket: organization, governance, and technology. This section will discuss each of these components in detail, explaining the various choices that were made and the problems that were encountered.

5.1 Organization

Omaza: The Farm Workers' Trust

Omaza's members meet on a monthly basis to discuss options and problems. Some of the issues discussed include participation in the Thandi label, the absence of dividend payments, the nature of their internal rules, their rights as farm workers (e.g., what constitutes an acceptable leave from work), and so on. These issues are first discussed amongst the five trustees who lead the organization and then in the wider Omaza group. On key decisions, voting is done by use of paper notes. There are some frictions between members which is a reason why some stakeholders in the project feel that small groups of beneficiaries may work better (friction assumed to be positively correlated with group size). Omaza also sends representatives to pan-regional meetings of farm workers focused on BEE issues.

Lutouw Estate: A Cost Center Approach

LE is organized as a group of cost centers. Each of these cost centers is managed as a separate business unit with its own independent account. The manager of a cost center has complete managerial freedom but is responsible for all the costs incurred by the cost center and his or her pay depends 100% on the financial performance of the cost center, i.e., the manager's entire pay consists of a certain % of profits (e.g., 15% in the case of grape production, 20% in the case of the riskier vegetable production). Each cost center manager decides on the amount of services hired from another cost center (implying a shift from overhead to variable costs) vs. services brought in-house (buy-or-make decision).

An accounting cost centre plays a pivotal role. Purchases and accounts for specific "production-oriented" cost centers are managed by the accounting cost center, not by the production cost center. The production cost center manager does not handle any money. This structure assures that good financial records will be kept for two reasons. First, the accounting is done by an independent and specialized administration unit. Second, the opposed interests of the accounting cost center manager (all costs must be accounted for) and the production cost center manager (no incorrect costs may be included) implies that costs will be scrutinized thoroughly. As a further safeguard, LE's Managing Director (MD), who based on years of experience has a detailed understanding of the various production costs, co-signs the final accounting statements together

with the accounting and production cost center managers. The cost center system thus leads to an efficient and controlled use of resources.

Initially there were five cost centers at LE: (1) Lutouw Wingerde (vineyard), (2) Hightide Products (tomatoes for fresh markets, squash, sweet potatoes), (3) Yam Yam (tomatoes for processing, onions, carrots), (4) Lutouw Kapitaal (farm equipment, most notably tractors) and (5) Lutouw Administratie (accounts management). After the shift from own production of vegetables to renting out land for vegetable production, LE now has only three cost centers (Wingerde, Kapitaal, Administratie). Hightide was abolished altogether while Yam Yam is now a cost center under Up-to-Date Tomatoes farm. Lutouw Administratie handles only a small part of LE's book keeping and will stop its activities altogether in the near future. Most of LE's administration is already done by an independent administrative services firm which manages the accounts for the cost centers at all of Truter Lutz's firms. In the near future. LE's administration will soon be 100% outsourced to this external administration firm.

Lutouw Kapitaal is basically the mechanization cost center which consisted at some stage of three tractors with three drivers who were each responsible for managing a tractor as a mini cost center. For example, Lutouw Wingerde "rents" a specific tractor from Lutouw Kapitaal and pays the driver R50/hr of which R45 is used for variable costs and loan repayments and R5 is paid to the driver. Given that remuneration is usually linked to performance in a cost center approach, the drivers were not merely made responsible for the management of the tractor, they were also given the opportunity to build up equity in the tractor as it was being paid off. While one driver failed to perform (related to alcoholism problems) and was fired, another driver managed his cost center well and saw his personal equity increase with R70,000 ($12,000)[34]. To assure the money is spend wisely it was not given to the driver directly, but rather set aside in a separate account and earmarked for this driver until a suitable investment opportunity emerges. LE's manager (Lutz) is currently working with the driver to find such a business investment opportunity.

To further illustrate the nature of the cost center approach, it is useful to point out that Lutouw Wingerde's manager is under no obligation to rent a tractor from Lutouw Kapitaal. A basic principle underlaying the cost center approach is managerial independence. Therefore as Lutouw Wingerde's activities increased (vines coming into full production) its manager decided that it was better to have its own tractor rather than rent one in. In turn, since the manager's pay depends on the financial performance of the cost center, the manager will rent out the procured tractor when not in use. In this context Lutouw Kapitaal may at some point merge with Lutouw Wingerde to form one cost center. In similar vein, the Wingerde cost center manager will "rent out" his permanent workforce (which includes most Omaza members) to other cost centers or firms (mainly Up-to-Date Tomatoes vegetables grown on land rented out by LE) when there is no work in the vineyard.

Open accounting books used throughout LE and its various cost centers further create transparency and reduce friction between Omaza members and LE's top management. The main

[34] The R70,000 represents roughly seven times a farm worker's annual income calculated at the legal minimum wage of R814/month). It represents the net income from the sale of the tractor after deducting the loan repayment. The specific tractor was sold after LE shifted its production focus from vegetables to grapes which requires smaller tractors.

outline of the cash flows is presented to Omaza members who consequentially have a better understanding of the cost structure. For example, they now understand how the sales of all those grapes were used to pay-off loans and so why there are no profits and no dividends.

Managerial Structure at Lutouw Estate and Omaza

LE is governed by a board of five (unpaid) directors which includes a government official (from DWAF) and a representative of Omaza. The latter two see to it that the interest of the farm workers is taken into account by LE's management. Strategic management decisions, especially with regard to marketing, are taken by its MD Truter Lutz. Omaza has little to no involvement in this decision making although Truter Lutz invites the farm workers over at his house to present and explain the overall strategic picture to them.

Day-to-day management of LE is the responsibility of the cost centre managers. Given Omaza's current structure, there is basically only the Wingerd cost center (which has a manager and an assistant manager) and the Lutouw Kapitaal cost center (which has a manager for each of its three tractors, essentially three sub cost-centers). All of these managers, with the exception of the Wingerd cost centre manager, are members of Omaza. The quality of these managers is a critical determinant of firm success and their selection is an important process. The current manager of the tomato cost centre (now no longer part of LE directly as it switched from own production to renting out land) is doing a good job but LE had to work through eighth other managers in that position in three years before finding him.

Omaza is managed on behalf of its members by a board of five elected trustees, the chair of which is also a director of LE. Trustees can be beneficiaries themselves, but this is not necessary (in case of Omaza they are). The five trustees are elected for an indefinite time period with new members being elected only when an existing trustee can no longer remain on the board (e.g., dies, retires, breaks one of the rules such as not attending meetings).
In its activities and decisions, Omaza has been assisted by an independent consultant. While this consultant has no executive power within Omaza, his advise carries great weight in the trust's management. As a key confidant which has worked with them since its inception, Omaza members trust and rely heavily on input from their advisor.

Supply Chain

LE has to take care of every aspect of the supply chain up to the point of delivery to the buyer. Amongst others, this implies that LE is responsible for organizing and financing transport of the grapes from the farm to the point of delivery (all prices paid to LE are "at point of delivery"). In its operations, LE benefits greatly from the knowledge and infrastructure of other farms and firms owned and managed at the strategic level by LE's MD. LE's post-harvest activities are most notably closely linked to Up-to-Date Tomatoes. The latter is mainly a tomato and wine-grapes farm producing long-shelf life tomatoes for the fresh market, fully equipped with a pack shed (washing, sorting, cardboard packaging, cold storage) and trucks.

The Equity Transfer from Laritza to Omaza

The transfer of equity in Laritza from SAWIT to Omaza is stipulated in a Memorandum of Understanding (MoU) between the two organizations. It is based on SAWIT's loan being repaid with LE dividends from Laritza's 40% share.

5.2 Governance

Rules Governing the People: The Rights and Obligations of Omaza's Members

Omaza is a trust and as such falls under trust law[35]. The trust format is popular in South Africa because it is a flexible legal entity (company laws do not apply). Given the trust structure, Omaza members are not shareholders, but rather beneficiaries. Each of Omaza's members has the expectation (not the right) to receive an equal share of the trust's income. This expectation was made conditional on the members meeting certain criteria. These conditions, as set forth in the trust deed of which each member received a copy, include that the member has to participate in Omaza's meetings and training activities and has to work for LE for a continued period of five years.

Based on trust law per se, there is no necessity for trust beneficiaries to work for the trust. In the case of Omaza however, if for example the farm worker, during the stipulated first five year period, does not comply with labor laws (e.g., does not show up for work or shows up drunk) and is fired from his job at LE, she or he will also automatically loose her or his right as a beneficiary of Omaza. The main reason for making trust membership conditional on member behavior is that it forces the farm workers to make a long-term commitment that will allow them to gradually build the capacity to benefit from being a shareholder in a farm.
The firing of a farm worker cannot be done at the whim of the general manager but has to comply with the amendment for farm workers of the Basic Conditions of Employment Act No. 75 of 1997. The latter indicates a rigorous process that protects the rights of the worker accused of bad performance. This process is conducted jointly by LE's management (MD and cost centre manager) and Omaza's trustees.

After five years (i.e., by December 2005), the rights of the farm workers (and/or their families[36]) as members of Omaza are assured This implies that they cannot loose their equity stake in LE even if they would be fired as worker at LE at a later stage. During this initial five year period there is a moratorium with regard to the right of beneficiaries to sell their stake in Omaza. Somewhere between 2010 and 2013, Omaza is expected to fully own Laritza and thus hold a 40% share in LE. At that time trust members can get in or out of the trust (sell or buy part or all of their share). If the member decides to stay in Omaza, he or she still faces the obligation to remain involved in the meetings and other activities of Omaza (either directly or through a representative), a condition put in place to avoid free-rider problems.

Rules Governing the Products and Processes: Standards

[35] Trust law is detailed in the Trust Property Control Act No. 57 of 1988. The trust format has a long history in South Africa dating back to the 17th century.
[36] All Omaza members have a will indicating who will inherit their share in Omaza/LE.

Vegetables: EurepGAP Standard

LE is not EurepGAP certified and hence cannot sell its produce to leading domestic or UK supermarket chains who demand compliance with this standard from all of their fresh produce suppliers. Hence it has sold its produce to less demanding buyers such as processors or European importers outside of the supermarket sector. If LE at some point would focus on markets that require EurepGAP compliance, it is in a good starting position as it will be able to benefit from the fact that its MD (Truter Lutz) already has a farm (Up-to-Date Tomatoes) which is EurepGAP certified (in fact Up-to-Date Tomatoes currently produces vegetables for these markets on land rented from LE).

Grapes: IPW and WIETA Standards

As a supplier of grapes to the wine industry, LE has to take three sets of private standards into account, namely the product quality standard, the Integrated Production of Wines (IPW) standard and the Wine Industry Ethical Trade Association (WIETA) standard. Since its key buyers (Distell, Vergelegen, Thandi) demand IPW compliance, LE has to (and does) comply with this standard. LE does not yet comply with WIETA (the standard is only recently introduced and only six firms were accredited WIETA members in May 2005).

Product Quality Standards

For farms in the wine industry, measurable product quality standards relate mainly to the acidity and the sugar content of the grapes as delivered to the buyer. Specific values with regard to these quality measurements are specified in the contract between farm and processor. Quality measurement starts in the field with specific blocks (usually of 5ha) linked through contracts to specific buyers[37].

At regular intervals (varies from farm to farm, but could be every three months initially), inspectors (viniculturalists) from buyers such as Distell and Thandi come to carefully inspect their blocks with regard to (1) the canopy cover and (2) the acidity and the sugar content in the grapes[38]. Inspection frequency increases near harvest time (February) because sugar content can change quickly at that point and harvest timing becomes critical for quality[39]. Apart from the physical inspections, regular communication between the farm and the processor is a important part of the business relationship. Contracts usually also specify that grapes must leave the farm at 2am so that transport takes place during the coolest time of the night (preserving quality). Finally grapes are inspected upon arrival at the processing facility.

[37] Within a given farm quality differs between blocks and buyers want to lock in the best located blocks. For example, Thandi wants the grapes from higher blocks because the lower blocks are in a soil that is too salty (the farm is only 5km away from the Atlantic Ocean coast). In order to gain access to the more desired sauvignon blanc grapes, Thandi agreed to also buy the less demanded red grapes from LE.

[38] Canopy cover refers to the number of grape bunches on the vines. Quality is negatively correlated with the number of grape bunches, limiting the yield for good quality wine to 6-10MT per ha.

[39] For example, two days of heavy sun close to harvesting can increase sugar levels and reduce quality suddenly.

Based on objective norms (e.g., sugar content) and subjective norms (e.g., taste), grapes are classified into five quality grades: A+, A, B, C and D. Only A+, A and B are used in wine production. C and D grades are used in brandy processing. LE's sauvignon blanc grapes (its main focus) were tested and found to be of A+ quality. This is the result of the quality of the location (cooler coastal climate) and the management (experienced wine grape producer). The final quality assessment takes place after fermentation (May) when the wine can be tasted. At this point a certain quality level is associated with a certain block and used to determine the price paid for the next harvest in February of the following year. In the absence of dramatic changes such as climatic disasters or a loss of farm management capacity, a block (and the grapes produced from it) usually stays in the same quality class over time.

GAP standards: IPW and WIETA

The scheme for the Integrated Production of Wines (IPW), which covers the whole wine supply chain, was published on 6 November 1998 under the Act on Liquor Products[40]. Although compliance is voluntary, non-compliance implies exclusion from most marketing channels (the standard is a threshold to market access) and consequentially 80% of cellars and processors representing 95% of grapes harvested had joined the scheme by 2004. IPW standards cover a wide set of variables around three broad themes: (1) product quality, (2) environmental protection, (3) food safety. Regional and national departments of agriculture are key parties in the continuous development of the IPW standard. For farms like LE, the IPW standard focuses mostly on good agricultural practices and includes the following 15 sets of specifications:

(1) IPW training (at least one person on the farm should have received it)
(2) Farm and vineyard environment (minimize disturbance of the natural environment)
(3) Soil and terrain (good soil management practices)
(4) Cultivars (only certified planting materials can be used)
(5) Rootstocks (only certified planting materials can be used)
(6) Vineyard layout (good vineyard layout practices, avoidance of soil erosion)
(7) Cultivation practices (good cultivation practices, minimize chemical use)
(8) Nutrition (test soil samples on chemicals, minimize chemical use)
(9) Irrigation (good irrigation practices)
(10) Pruning, training and trellising (good pruning, training and trellising practices)
(11) Crop and canopy management (good crop and canopy management practices)
(12) Growth regulators (use only permitted in exceptional circumstances)
(13) Integrated pest management IPM (good pest monitoring and control practices)
(14) Handling of chemicals (good chemical handling practices)
(15) Record keeping (detailed records on analytical tests, irrigation and chemical use)

The voluntary IPW standard differs from the related but legally binding standards in two major ways. First, the specifications in the IPW standards are stricter and more comprehensive as they start from the wide set of applicable government standards and then merges and adds to them. Second, in terms of the auditing of farms and firms in the industry, IPW is more effective. In principle, the government inspects farms but this does not happen in a comprehensive fashion or on a systematic basis (only when problems emerge). Auditing in the IPW scheme combines self-

[40] More information on IPW can be found at www.ipw.co.za.

evaluation reports with annual third party inspections by ARC Infruitec-Nietvoorbij, a leading research institute in Stellenbosch[41].

Established in November 2002 and with its first audit conducted in 2004/2005, the WIETA standard is a recent industry-based initiative that focuses on an element not part of IPW, namely the working conditions for employees in the wine industry[42]. More specifically the standard is based on the following 10 labor principles: (1) no child labor, (2) freely chosen employment, (3) a healthy and safe working environment, (4) freedom of association, (5) a living wage, (6) non-excessive working hours, (7) no harsh or inhumane treatment, (8) no unfair discrimination, (9) provision of regular employment, (10) respect for the workers' housing and tenure security rights. The WIETA standard is based on the Ethical Trade Initiative (ETI), a similar certification system in the UK[43], and on government standards. Its main point of difference with the latter is that WIETA focuses more on compliance monitoring. Monitoring has not been a strongpoint of the government and hence standards never gained much practical importance. In order to be WIETA certified farms and firms must pass an annual inspection by independent WIETA trained social auditors who have a good understanding of the wine sector and the applicable legislation. Compliance will lead to accredited membership in WIETA. Non-compliance will require the development of an improvement plan which sets out the steps that will be taken towards becoming compliant within reasonable time frames agreed with the association.

By May 2005, WIETA was not yet compulsory and the first audits had only just started. However, given that leading processors like Distell (one of LE's key buyers) are co-founders of WIETA, farms will soon have to comply with this standard if they want to remain in the supply chain. Like with the IPW standard, non-accreditation in WIETA will lead to market channel exclusion.

For farms, the direct costs related to the IPW and WIETA standards are small. The annual registration fees, which cover the costs for the ARC-Infruitec audits, are R122/year for IPW and R500/year for WIETA ($20 and $80 respectively). The management costs related to assure compliance are more substantial but difficult to estimate as they depend on what is part of the farms normal management practices.

5.3 Technology

The consistent, yet careful investment in technology whenever needed to secure the long-term profitability of the farm is one of the key drivers behind the economic success of the project. Without these investments LE would not have been possible. However, it should be pointed out

[41] ARC Infruitec-Nietvoorbij inspects 36 farms, 110 cellars and 2,500 wine samples randomly on an annual basis in the context of IPW. For reference, there are 4,435 wine farms in South Africa, roughly half of which produce more than 100MT of grapes per year (www.sawis.co.za). The probability that a farm is selected for an audit in a given year is thus less than 2%. More information on this research institute can be found at www.arc.agric.za/institutes/infruit/.

[42] More information on WIETA can be found at www.wieta.org.za.

[43] For example Tesco, Co-op and Marks & Spencer, leading UK supermarket chains, require ETI certification from their suppliers. For more information: www.ethicaltrade.org. All three are also members of WIETA. South African supermarket chains were not members of WIETA in April 2005. WIETA may become an authorized accreditor for ETI in the future.

that it is not so much the physical technology itself which is of interest here (these technologies are readily available in the market place), but the capacity of management to realize what technologies are needed and management's inventive ways of financing technology investment.

Irrigation

LE exists because of a heavy investment in irrigation. The most important part is the large dam from which the fields are irrigated using pumps and drip irrigation. The investment in the dam unlocked the hidden value of the (undeveloped) land and the (surplus) water[44]. The dam has a surface of 80ha and a capacity of 4.2 million cubic meters. The dam is filled from the river only during the winter season to the extent that there is sufficient rainfall in the Olifants river catchment area. Another important irrigation system investment, further indicating the foresight of the commercial farmers leading LE, is a desalinizing plant. This plant was intended as an insurance against droughts causing the salt level of the water to increase. When the water levels in the dam, which is located at sea level and at 5 km from the sea along the river, get sufficiently low during dry times it will become salty. With the 2004 winter in the Western Cape being the driest in the last hundred years and the water level in the dam slinking down to the 8% level, the desalinization plant (which removes salt and any unwanted minerals) proved critical in ensuring water access for irrigation to the vineyard and thus securing this heavy capital investment on which LE fortunes are currently riding[45]. Investments in two boreholes further secure the critical access to water at LE.

Other Physical Capital Investments

LE has made all the necessary investments in farm equipment and infrastructure to facilitate smooth production and post-harvest activities. LE's 2004 Annual Report for example list amongst others the following equipment: seedbed preparation machine, harvest machines, water pumps, sprayers, loaders, forklifts, potato cropper, vegetable planter, centre pivots, carrot washer, trailers, tomato washer. Four tractors were bought and mainly used in land clearing for establishing the vineyard and in land preparation in vegetable production. With LE moving out of vegetable production, the number of tractors was reduced to one. In terms of post-harvest technology, an investment was made in a cold storage facility on the farm, mainly aimed at vegetable marketing. Most other post-harvest technologies (packing shed, transportation vehicles) are outsourced to Up-to-Date tomatoes, which given the close link of the latter to LE, is a reliable partnership.

[44] LE is one of only two farms in the Northern part of the Western Cape that are not linked to the main government operated irrigation system of canals linked to a dam in Clan William. The other one is Goedehoop, located in the vicinity of LE. When the Clan William dam on Olifant's river reaches its maximum level (during the winter months of June-July), it overflows in the canal system from which farmers then tap off water to fill their farm dam (certain volume rights apply). Farmers then use this water till next winter's filling. A substantial amount of water, overflowing from Clan William dam as well as water from the wider catchment area of Olifant's river and its tributaries, flows into the sea. LE's dam is filled using this water just before it would otherwise flow into the sea.

[45] Normally desalinization plants are used for drinking water and are uneconomical with regard to use in irrigation systems. However because the waste water from the desalinization plant is still cleaner than the river water, LE can pump it into the river. The resulting savings in terms of waste water management make the use of a desalinization plant for irrigation sufficiently economical to address emergency situations at LE (if, e.g., the permanent vines would otherwise die off).

6. Welfare Impact

6.1 Economic Impact

Value of the Farm Worker's Share

When LE was established in 1999, shareholders brought in R7.5 million ($1.2 million). Continuous development and improvement of the land have increased the value of the farm over the years. The value of LE in 2005 can be broken into various components. First, there are the water rights which by one measure can be valued at R6 million and by another measure at R18 million[46]. Second, since LE relies solely on its own irrigation system and so does not use the government's canal system, it does not have to pay the canal maintenance tax of R1,400 per ha, which over a 50 year life span represents a value of R20 million[47]. Third, the value of the dam is set at about R7 million. Fourth, the value of the improved land is about R50,000 per ha for land under vine cultivation (value varies by age of vines), which with nearly 100ha under vines represents roughly R5 million. Adding these various assets together using high-end valuations, the value of the farm can be put at R50 million. At the low-end, LE's main commercial lender valued the farm conservatively at R16 million in 2005.

To obtain the value of the equity in LE we must correct for loans. There are two types of loans on LE's books: secured commercial loans and unsecured loans from the shareholders representing their initial investment in LE. In our analysis here we shall treat these unsecured shareholder loans as equity investments and hence not deduct them from the farm value when calculating the equity value. With current assets equaling out current liabilities excluding bank overdrafts, secured loans and bank overdrafts amounted to R8 million (2004). Given farm value estimates ranging from R16 million to R50 million LE's equity value is thus somewhere between R8million and R42 million. A realistic intermediate value of the shareholder equity in LE is R20 million. This represents a near tripling of the original shareholder contribution of R7.5 million in 1999.

Under the current MoU between SAWIT and Omaza, the latter will receive 40% of LE in return for a repayment of the R2.2 million investment made by SAWIT in 1999 (principal plus inflation). In part to avoid taxes on the interest, SAWIT may however forego the repayment of the loan (becomes a grant). The fact that in November 2004, SAWIT had written the loan off its

[46] Water rights are actively traded between farmers who are linked to the canal system managed by the government. In 2005, these water rights were valued at R60,000 per ha. Given that LE has the water rights for 300ha, we can value them at R60k/ha x 300ha = R18 million. However, since LE is not connected to the canal system, it cannot sell its water rights to farmers in the canal system (all farmers but two are in the canal system). The water rights can thus only be traded with the farm as a whole. Futhermore, canal water is more reliable, more evenly spread throughout the year and of better quality (cleaned) relative to the river water (of which there can be sufficient quantity but of insufficient quality, because the river carries too many sediments). LE's water rights are thus difficult to value. During the negotiations leading to the establishment of LE, DWAF negotiated a value of R20k/ha for the water rights (or R6 million). This was considered an inflated value by DWAF but a counter strategy for the equally inflated land value argued by the commercial farmers. However, the fact that LE is now developing into a profitable farm has a positive impact on the value of the water rights. In isolation, neither the water rights nor the land has great value, in combination however their value is much higher.

[47] R1,400/ha x 300ha = R420,000 per year over 50 years equals R 20 million.

books is a strong indication in this direction. SAWIT may decide to opt for intermediate strategies, such as turning only part of the loan into a grant or, given that the farm value has increased, sell a 20% interest in LE for R2.2 million and give the other 20% to Omaza for free. There are now thus two extreme scenarios: full and no loan repayment. Under the full loan repayment scenario, Omaza's 40% can be valued broadly between R1 million and R15 million. If loans are forgiven, Omaza's share in LE can be valued between R3 million and R17 million in 2005.

Each of Omasa's 22 members has an equal share in the trust. Given the two loan scenarios and the range of equity values, the share of each worker in Omaza can be valued somewhere between R50,000 and R800,000. Under the most likely scenario (i.e., an LE equity value of R20 million and no repayment of the SAWIT loan), the trust members share has a value of R350,000 ($60,000). To put this in perspective, the farm workers' legal minimum wage is R10,000 per year ($1,700). This makes the 2005 value of their share in LE of the same order of magnitude as their life-time earnings. As the farm is further developed, this value will increase further still.

It is however important to point out that the farm workers are trust beneficiaries, not shareholders. This has two implications. First, it means that cashing in their membership is not so easy as the selling of normal stock (less tradeable, less liquid). Although it would be possible, the trust deed makes it difficult to do so (through various conditions) because (1) opting out would go against the social development objectives of LE and (2) most Omaza beneficiaries are not considered to be ready to use their share productively by various stakeholders in the project. If a beneficiary, not withstanding the imposed challenges, stills decides to sell his interest in Omaza he or she has, based on the trust deed, the obligation to offer the shares first to Omaza. Second, even though after five years (December 2005), beneficiaries no longer have the obligation to work on LE, they can still loose their status as beneficiary if they or their representatives do not participate in the trust's meetings.

Income Effects

The members of Omaza, for the greater part, are still regular farm workers, doing the same work as non-trust member farm workers, and hence they get paid the same salary[48]. For the three Omaza members who have been able to get into lower management positions, incomes have increased commensurate with their increased responsibilities. Regular farm workers are paid a salary that cannot be lower than the legal minimum wage for that area. For the area where LE is located, the minimum wage is R37/day or R800 per month[49]. In the case of piece rate work such as harvesting tomatoes, farm workers are paid around R2 per 20-25kg crate filled, but with the rule that for a normal workday they cannot be paid less than the minimum wage. For day-based work (as opposed to piece work) permanent farm workers at LE are paid R50/day or R13,200/year (35% above the legal minimum) based on the fact that they have had more training.

[48] Actually, this is one of the specifications of the WIETA standard: "Members shall remunerate employees in accordance with the principle of equal pay for equal work and work of equal value".
[49] The annual wage of R10,000 ($1,700) per year is 34% of the GDP/capita which was $4,700 in nominal terms in 2004 (International Monetary Fund).

However, Omaza members' expendable incomes are or will soon be affected positively in four other ways: bonus payments, special business arrangement income, Fair Trade extras, dividend payments. While the former two have already been paid to Omaza members, the latter two represent future income streams.

(1) In order to encourage its members, who are getting anxious about not having received any dividend payments over the five years since LE's establishment, Omaza paid a bonus to its members in 2004 (a R250 Christmas bonus). This bonus was financed from the grant it received from DWAF in 2000.

(2) Omaza has been able to further increase the income of its members through a special business arrangement. Under this arrangement, 15ha under young (non-producing) vines (with water supply) were rented out free of charge to Up-to-date farms, allowing the renter to plant tomato plants between the grape vines. Further critical parts of the arrangement were: (1) the profits will be split equally between the renter and Omaza; and (2) LE, through the Lutouw Kapitaal cost centre, provides 50% of the R100,000 input cost for the 15ha to Omaza (as an interest free loan).

(3) Through its future shareholdership in the fair trade certified Thandi wines, LE will receive a Fair Trade premium of 0.05 euro per kg (i.e., R400 per MT or an approximately 7% price increase). This additional payment must be used according to Fair Trade's rules, i.e. mostly for paying out workers and social development but also for reinvestment in the farm. This could represent an additional income of R450 per worker per year[50]. Furhtermore, once Omaza is an indirect shareholder in Thandi it will be entitled to dividend payment by Thandi.

(4) Once the farm reaches its initial objective of having 100ha of wine grapes under full production, it will have an estimated net income of R1 million from an estimated turnover of R5.5 million. Under some further assumptions, this net income could translate in dividend payments that would double the farm workers' incomes[51]. Dividends will likely not be paid in full by Omaza to its members, but rather 25% to 50% will be used for group projects, such as improvements in housing, access to utilities, further training activities, and so on.

Wider Economic Impact in the Area

[50] Assuming (1) that one 5ha block at LE will be set aside for supply to Thandi and (2) that 50% of the additional income will be paid out to the members, we have the following: 5ha x 10MT/ha x R400/MT x ½ x (1/22) = R450.

[51] Grape sales from 100MT are estimated at R5 million (100ha x 10MT/ha x R5,000/MT). With variable costs estimated at 60% of turnover and taking out an estimated 10% for depreciation, this leaves a net income before taxes of R1.5 million. Of the latter, 15% goes to the farm manager, 30% goes to taxes and an assumed 10% is retained for reinvestments. This implies a net income of R675,000 from grape sales (45% of R1.5 million).To the revenue from grape sales we can add land rental income. For an assumed 100ha rented out (at R5,000/ha), the additional net income after taxes (assumed to be 30%) will be R350,000. This resulting total net income of roughly R1 million could be paid out as a dividend. Omaza will in that case receive 40% of this amount (R400,000). If Omaza has to pay back SAWIT's investment, then it is not unlikely that 50% of the dividend will be used to pay back the loan leaving R200,000 that represents additional expendable income for the Omaza members. With 22 beneficiaries this represents an extra pre-tax income of R9,000 per member or an increase of their expendable income with 70%. In the case that SAWIT's loan does not have be repaid, dividends double and each farmer's expendable income would more than double.

While not estimated here, there is also a major economic impact from the project on the region – a direct investment of R7.5m in a rural area is high. Direct and indirect job opportunities were created as a result of the investment and the forward and backward linkages are phenomenal for the area. All the money spent on gas, fertilizer, seed, wages, and so on over a five year period has probably been a major driver for the economy of this area.

6.2 Social and Overall Welfare Impact

A Challenging Starting Position

The northern part of the Western Cape Province where LE is located has historically not been a progressive area. The farm worker community to which Omaza's members belong has to bridge a wide gap between their existing capacities and the capacities they need to beneficially participate in modern, dynamic supply chains. This challenging starting position is due to four interrelated factors: their history, education level, social structure and age composition.

Physical infrastructure for farm workers is generally less developed and commercial farmers were over the whole uncaring about the welfare of their workers. Most notably the "dop-system", for which the region was well-known in the past, created havoc on the social fiber of the farm worker communities. The dop-system, illegal since the 1980s but with effects lingering on to this day, refers to payments of farm workers in wine rather than in money, leading to ubiquitous problems of alcoholism and birth defects. In part, this behavior of commercial farmers during the apartheid era is the result of social pressure within the white community to conform to the norm[52].

Furthermore, farm workers in the area are amongst the least educated and least skilled in South Africa, in part because better educated or more skilled workers migrated to other rural areas or to the cities. Furthermore, Omaza members were not especially selected on the basis of their management potential.

The farm workers' social structure places the group above the individual and hence group members are inexperienced and uneasy about acting individually. Individuals who demonstrate ambition and try to get something done (based on individual decisions), i.e., the sort of people needed in a modern business environment, would likely be pulled back by the group or risk exclusion from it.

Farm workers in the area are also relatively older and households have fewer residing children[53]. Most of the farm workers' children are older and live and work elsewhere with few links back to their parents. This may have limiting implications for the cross-generational impact of LE.

A Major Focus on Capacity Building

[52] For example, a white commercial farmer in the area who paid his black farm manager a salary far above the (low) norm and provided other benefits (such as the use of a vehicle) was scathingly referred to as the "ANC-farmer" within his social group.
[53] For example, of the 22 Omaza members, only about five are younger than 40.

Capacity building through training and education has been an important integral part of the social uplifting of farm workers at LE since the year of its establishment (1999). Omaza members, and usually also the non-member farm workers, receive a wide set of training and education opportunities as part of LE as a social development project. These opportunities vary from informal learning over short courses to formal education.

For informal learning, mentors are central in changing the mindset of the farm workers from passive executers of managerial directives to pro-active business decision makers. Building market knowledge was facilitated through field trips to buyers (visits to the cellars that process LE's grapes) and discussions of newspaper articles on the domestic and international wine markets. Short courses provide focused training modules on a wide set of topics such as how to organize meetings, run a secretarial office, read financial documents, deal with alcoholism, and so on. Formal, more long-term education includes adult basic primary and secondary education (ABET) and training in production technology (Vineyard Academy)[54].

The providers of training and education consist of a varied group. With regard to more informal learning, two mentors to the Omaza members played a critical role: the commercial farmer (Truter Lutz), on the business-economics side and the external consultant (Gus Pickard), on the social-organizational side. The presence of the latter provides a critical complement to the former as the commercial farmer as mentor will logically focus on and contribute to the economic success of the venture. Not being trained as a social development specialist, the commercial farmer will focus less on the social aspects of the project. Providers for short training courses and formal education programs are usually brought in with the assistance of DWAF and especially SAWIT.

Funding for training and education activities comes from various sources and is generally not a problem. These sources include Omaza's reserves[55], SAWIT, DWAF and commercial firms[56]. Once Omaza receives dividends from its share in LE, part of these dividends can also be used for training and education, making the process self-sustaining.

Some Positive Effects…

One Omaza member finished and two or three other members are getting close to finishing their high school education and thus have some (unproven) potential to take on management positions. Farm workers understand that they now are shareholders with a long-term interest in the farm. Because LE's books are open for inspection to all Omaza members, they now understand the overall cost structure of the farm better and have gained a better understanding of what it means to run a business. Rather than just doing what they were told, Omaza's farm workers now also

[54] More information on these programs can be found at www.saqa.ac.za.
[55] Initiated by the deposit of the DWAF fund. Bank interest on this account pays for the salary of the consultant assisting Omaza (2 days per month).
[56] For example, the commercial bank who provided loans to LE also provided a grant for the construction of a training facility on premises (i.e., a wooden two room construction with a TV-set and satellite link-up that allows for TV programmed training modules). Most of the farm worker training and education activities take place in this training facility.

understand much better, from a technical point of view, why they are performing various field tasks.

Some Omaza members succeeded in obtaining managerial positions. One became a pack shed manager (at Up-to-Date Tomatoes Farm), one managed a tractor as a cost centre and one became the assistant manager in grape production at LE and has the potential to become the manager, according to various stakeholders.

Omaza trust members also benefit from having life insurances that will pay out R100,000 ($17,000) to beneficiaries. The premiums for these insurances are paid in full by Omaza in the first year, but trust members are expected to gradually increase their participation in the premium payments to cover the annual increases over time. The financial contribution from the trust members is set up as a savings plan with each member expected to save R15/month (R180/year).

Less tangible than education, job positions or insurance provisions but no less important, the farm workers' perspectives and attitudes have changed because of their experiences with Omaza and LE. They are now working for themselves and for their children. Omaza workers are now much more motivated in their work. For example, they would now decide themselves to forsake a holiday to assure supply to markets (and assure their future dividends). Some of the Omaza members now also dare to speak up when they disagree with the commercial farmer, previously an inconceivable feat. They have also made progress in overcoming alcoholism and are generally taking control of their lives. They now feel they have a future.

But Slow and Limited Social Progress Overall

At the end of five years, one cannot help but observe that the social development of the farm workers has been a slow process and only limited progress has been made.

Out of 18 people who started in the formal basic education program, only seven were left by May 2005. Only one Omaza member finished his secondary education and generally farm workers show relatively little interest in education opportunities, even though these are offered at no cost to the farm worker[57]. At least three reasons can explain this lack of interest in education. First, farm workers grew up having always been told that they need no education (most barely finished primary schooling). Second, education creates more differentiation within the group (given different levels of aptitude), something which creates friction in a social structure where the group dominates the individual. Third, most Omasa members are older (closer to their pension than their schooldays) and may feel they are too old to get back to school. A logical next step would be to focus on the education of the farm workers' children[58]. However, most farm workers' children are adults living independently outside of the area and so the capacity building efforts appear to have only a limited long-term impact.

[57] For example, only two or three farm workers would take the opportunity to participate in a basic education program at LE that has the capacity to provide basic education for eight farm workers. The recent graduation of the one Omaza member who completed his high school degree did however stimulate some farm workers to re-engage in the basic education program.

[58] After all, the current commercial white farmers for the greater part build their capacities also over several generations.

Only three of Omaza's 22 members succeeded in getting into a managerial position, while the others are mostly still working in much the same way they did before the establishment of LE. Although they are now shareholders, most of Omaza's members are not treated any differently than the other farm workers. It furthermore appears unlikely that more than three to five members can develop the capacity to become managers.

On various occasions, Truter Lutz has as LE's MD, tried to appoint Omaza members as cost center managers, but (with the three exceptions mentioned above) farm workers have not shown an interest in these opportunities. This may reflect a genuine lack of interest but may also be due to a fear for taking individual responsibility, something which (1) they have never been given the opportunity for in the past, (2) they may feel unprepared for and (3) may negatively affect their acceptance in a social structure in which individualism is discouraged[59].

With regard to the living conditions of the Omaza members, housing for the farm workers has been neglected which is in part due to the emphasis on the economic success of LE [60]. There is some discussion regarding the establishment of an agri-village near the farm but there are no specific plans in this direction[61]. Omaza has not used its own funds to improve housing because it wanted to keep these funds available as an additional security for the repayment of the SAWIT loan. The nearby Goedehoop Farm supplies to Woolworth's supermarkets, a chain with very high standards for all aspects of production, including farm worker housing conditions and hence housing conditions at Goedehoop are better than at LE. However, Goedehoop is considered less successful from a economic perspective, potentially affecting the sustainability of upgrading housing quality for farm workers. When Omaza starts to receive dividends, it will use those (in part) for improving housing and given the sustainability of the funding, housing upgrading will also be more sustainable[62].

In general, the main concern of the Omaza members, which affects the quality of their life, is the insecurity they feel around the benefits they will receive from their participation in and contribution to LE. Not only have farm workers not received any dividends, housing improvements or (for the greater part) better and more respected job positions, there is also the chance that they (for some minor thing, they fear) will loose their membership in Omaza[63].

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[59] Black farm workers who take on mid-level managerial positions (i.e., having a white boss and black sub-ordinates) can quickly be branded as a "witvoet" (a teacher's pet) and be excluded from the social group (and the security net it represents) by other farm workers.

[60] Housing for Omaza members was established on the farm, i.e., an area which was undeveloped and had no utility provisions. The combined book value of the housing for the farm workers was R40k ($7k). This is similar to the book value of the farm's fences (2004 Annual Report).

[61] Farm workers presumably prefer to live in a village near the farm as opposed to a neighborhood in the nearest town, because they feel more secure there (comfort zone) and because it would avoid the home-work transportation cost.

[62] The memorandum of understanding between Omaza and SAWIT stipulates that it is Omaza's (not SAWIT's) decision how to use the dividend associated to the 40% share in LE. They can use it to pay off the SAWIT loan, improve housing, pay school fees, pay cash bonuses to members, and so on.

[63] Project designers intentionally made shareholder status conditional and selling of their share by members difficult because the slowed down transfer of empowering resources to resource-poor farm workers would increase the likelihood that farm workers will be ready to use received resources wisely (productively as opposed to consumptively).

Although the trust members at one level understand that during the first years of LE earnings need to be retained for loan payments and investment, the lack of substantial benefits after five years is weighing heavily on them and many were at one point or another at the brink of quitting.

7. Conclusion and Implications

For development program design, the Lutouw Estate (LE) case is instructive for where it is succeeding as well as for where it is failing.

Five years after it was established, LE is proving itself to be an economic success. The value of the farm tripled. Selling to a wide variety of markets, revenues grew 15-fold between 2001 and 2004. The farm workers have each build up an equity share that is comparable to five times their annual income and that has the potential to increase to 35 times their annual income within the next decade. Dividend payments are expected within the next few years and will likely increase the farm workers' incomes with 50-100%.

However, economic and social success does not necessarily coincide. Five years of participation in LE has not fundamentally improved the life of the project beneficiaries or of those in the wider rural community. The farm workers' income and access to capital have hardly improved. Their housing is underdeveloped. While these material deprivations will likely improve once LE starts paying out dividends, the slow change in capacity building is more worrisome. Only one beneficiary succeeded in completing his high school degree and only three succeeded in securing positions of greater managerial responsibility. Spin-off effects on the wider community are limited for two reasons. First, with little change in business skills and access to capital, the beneficiaries are unlikely to initiate job creating entrepreneurial activities outside LE. Second, with few beneficiary households having small children, there appears little hope that improved access to education and capital through LE would create a new generation ready to put the resources acquired by their parents to productive use within the wider community.

From these economic and social perspectives, the following six key success factors for development programs emerge from the study:

(1) *Bringing together all the knowledge required of firms in dynamic modern supply chains through unique partnerships.*

Lutouw Estate, as an entity, has two principal objectives: becoming a profitable firm and empowering the rural poor through skills development to be an integral part of it. The realization of these two objectives requires various skill-sets and hence various parties were brought into the project to assure that all the required knowledge is present. A firm cannot become profitable without good linkages to the market and without an understanding the principles of good business management. These two knowledge components were brought in by the commercial farmers whose capacities instill trust in buyers or input providers and who provide mentorship to the PDG shareholders in terms of management skills. Knowledge on the challenges and opportunities of empowering the rural poor as participants in modern supply chains was provided by experts from various governmental and non-governmental organizations (DWAF, SAWIT, independent consultant). Technical knowledge of wine production was provided by almost all

stakeholders: the farm workers, the commercial farmers and the NGOs. In moving towards more value-adding (from grapes to bottled and branded wine), LE has partnered up with another firm that has extensive knowledge is this area.

(2) Developing marketing and finance strategies that capture dynamic market movements while safeguarding cash flows.

LE's strategic product-market choices have combined: (1) a continuous exploration and development of new marketing and financing opportunities and (2) a safety-first strategy with respect to cash-flow management. Initially, LE focused on fresh vegetable markets which provided good markets and quick cash-flow. Simultaneously, the vineyard was established with a focus on grape varieties and quality-levels for which there was a ready demand and prices were high. Unique interlinked market contracts were used to simultaneously access affordable investment funding and secure rewarding markets. When wine grapes were coming into production and started to generate more significant revenues, LE shifted away from own production of vegetables to renting out land to firms that can absorb the greater levels of risk associated with vegetable production. LE's experience shows that it may not be a lack of markets which is the main challenge, but rather (1) finding the most rewarding of various existing markets opportunities and (2) building the capacity to keep meeting the requirements of these markets in the long term.

(3) Designing an organizational strategy that provides the right combination of skill and incentive.

Two modern business practices underlay LE's organizational strategy: cost center management and outsourcing. Cost center management leads to specialization and efficient resource use. Cost centers also create mid-level management positions which in turn create opportunities for the rural poor to become decision makers and improve their management skills. Cost centre managers' salaries are in LE's case based on the cost center's financial performance thus resolving some agency problems by aligning the interest of the manager with the interest of the firm. Where efficient external service providers exist for critical firm activities, LE outsourced these activities. This is for example the case for LE's administration which is for the greater part outsourced to a separate firm who can perform this task both better and more efficiently than LE. When combined, specialized cost centers and outsourcing can lead to the emergence of regional industry clusters.

(4) Continuously investing in technology and expansion so as to increase resilience to both market and natural risks and facilitate a process of upgrading.

LE has continuously invested in expanding its vineyard with various grape varieties. This has allowed the farm to sell to various markets. Investments in production and post-harvest technologies in general, and in irrigation infrastructure in particular, have given the farm control over its activities and safeguarded critical investments against natural risks. For example the investment in a desalinization plant on the dam protected the vineyard from a serious drought. Its increased scale of operations and rapidly growing revenues greatly facilitated LE to service its

loans and engage in various new opportunities, including upgrading from grape production only to becoming a partner in the production of branded wines.

(5) Selecting high-potential beneficiaries and effective skill transfer mechanisms in order maximize spin-off effects.

From a development point of view, LE's objective is to contribute to the empowerment of the rural poor. The rural poor are economically empowered when they develop their business skills and have better access to productive resources (capital). Both objectives have only partially been achieved in the case of LE. This is mainly due to the fact that no special effort was made to select as project beneficiaries those farm workers that have the highest potential of both acquiring skills and using them in initiating economic activities that would benefit the local rural economy. Although excellent educational and training programs where provided to the farm workers, they responded with only limited enthusiasm and few farm workers improved their skills significantly. A careful participant selection is critical as it would imply that resources are made available to those PDG members who have the most potential to create a productive business on their own. Projects targeting a smaller group of farm workers with higher management and/or entrepreneurial potential may be more effective in terms of improving the welfare of the rural poor than targeting a larger group of farm workers with less growth potential. Not all workers can become managers or entrepreneurs, but all can have good living conditions when sufficient numbers of new and more productive jobs with good worker salaries are created by these emerging managers or entrepreneurs.

(6) Providing sufficient incentives, both monetary and non-monetary, to keep the project's beneficiaries motivated and engaged.

A development project such as LE must balance the to some degree conflicting economic and social development objectives. As a business, LE must keep investing its net earnings in the further development of the farm. As an empowerment project, it must use net earnings to make a more long term investment in the financial and psychological well-being of the farm workers - shareholders. Given that insufficient reinvestment in the farm can lead to cash flow problems and bankruptcy, investments in the firm must be given priority. However, when social investments are ignored for too long, social unrest can lead to the social failure of the farm. The farm workers who are the intended beneficiaries of LE have had a difficult time remaining involved in the farm because after five years they have seen little or no benefit in terms of their income, their resources, their status in the farm or their overall welfare. Only support from experienced consultants has kept the farm workers' trust together. A balanced use of profits with regard to economic (firm-level) and social (farm worker community level) investment is critical.

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Case Study 3: A Case Study of Bouwland Landgoed Ltd, South Africa

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"Building a dream takes more than faith, hope and courage; it requires the true spirit of man to shine through in the simple act of taking another's hand."

– Statement from the Bouwland wines label.

1. Introduction

This report presents a case-study that documents and analyzes how a group of farm workers in South Africa's famous Stellenbosch wine region became shareholders in a recently established vineyard and wine company. The emergence of previously disadvantaged groups (PDG's) as more central participants in the agri-food system is not an uncommon event in the new South Africa. Various government programs and policies have provided strong incentives for agri-food firms to include PDGs. Most notably in this context are the BBBEE Act of 2003, which scores firms on their inclusion of PDGs as suppliers or managers, and the Land Act of 2000, which greatly increased access to land for PDG's. The success of PDG-supporting projects varied. The analysis of the relatively successful Bouwland case will help policy makers and program designers in the area of economic development to better understand the key components of successful business models for linking PDGs to markets. The general principles underlying the model also have implications for similar initiatives beyond South Africa's borders.

This report is structured as follows. In the next section we briefly present the conceptual model used to structure our analysis. Section 3 provides some background on Bouwland and the environment in which it emerged. Section 4 looks at the markets targeted by Bouwland and the requirements these markets impose upon their suppliers. Section 5 details the Bouwland business model with respect to its institutional, organizational and technological characteristics. Section 6 looks at the economic and social benefits for Bouwland's PDG shareholders. Finally, section 7 analyzes the implications for development programs aimed at assisting smallholder producers with linking up with markets.

2. Methodology and Analytical Framework

This is report represents a single explanatory case study (intended to feed into multiple explanatory case-study). The case-study presents data bearing on cause-effect relationships, namely, it explains how a farmer group succeeded in entering a modern market channel. The case study is the method of choice when the phenomenon under study is not readily distinguishable from its environment (Yin, 2003) which in this case are the emergence of a farm worker-owned firm and the market environment it operates in.

Theory is central in explanatory case-studies. Theory helps in the selection of the case(s) and in the selection of the variables. In this case we are guided by the analytical framework presented in figure 1 (static perspective) and figure 2 (dynamic perspective).

Figure 1: Static Perspective on Value Chain Analysis

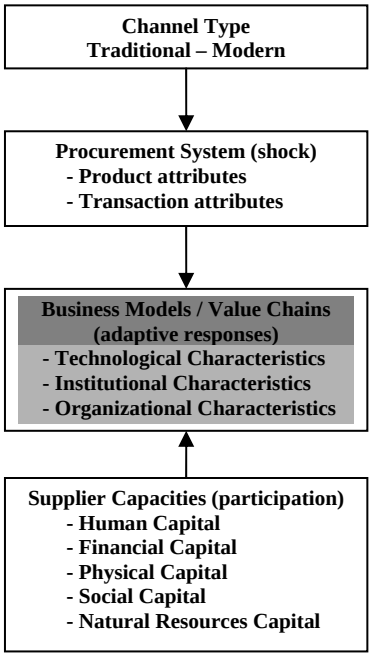
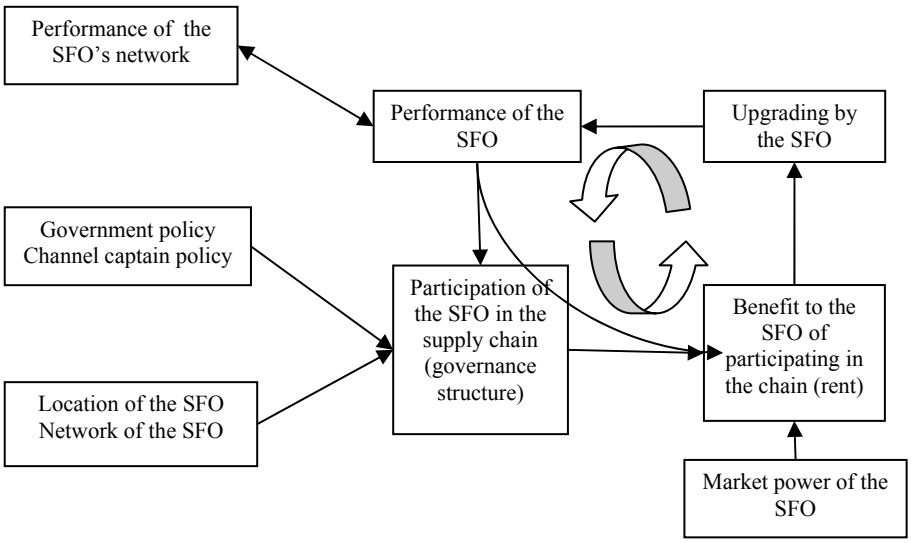


Figure 2: Dynamic Perspective on Value Chain Analysis



(Note: SFO=Smallholder Farmer Organization)

Case-studies that look at contextual variables add rich detail to the analysis. However, for internal validation of the findings, multiple sources of evidence are required (triangulation of data). The analysis presented in this report is based on secondary information, field observations and (mostly) on key informant interviews. The following people participated in various semi-structured interviews using partially overlapping question sets:

- Veronica Campher, Promotions Bouwland
- Cecil Jaap, Board Director of Bouwland
- Jimmy Freysen, Regional Manager, Department of Land Affairs
- Abrie Beeslaar, Winemaker Kanonkop
- Francois Naude, Sales Manager Beyerskloof
- Jan Karel Hendriks, Chairman Bouwland Deelnemings Trust
- Geremy Arris, Assistant Winemaker Bouwland and Kanonkop
- Thomas De Fonseca, Delta Fijne Wijnen

3. Background and Context

Conceptualization

The idea for establishing Bouwland[64] as an empowerment company emerged in 1998. At that time, Bouwland was both a recently re-established label and a vineyard. The vineyard was part of the Beyerskloof winery which has two co-owners: Beyers Truter and Simon Halliday[65]. The background of these two entrepreneurs has direct relevance for Bouwland.

Beyers Truter, one of the Cape's foremost wine makers, bought the small, but perfectly formed Beyerskloof Winery in 1988 and the Bouwland Estate in 1996. Both were initially co-owned by the famous Kanonkop Wine Estate. Both Beyerskloof and Bouwland are located in the renowned Stellenbosch wine area. Before buying these two farms, Beyers Truter gained an international reputation as the Cellar Master at Kanonkop where his pioneering work with the pinotage, South Africa's indigenous wine grape, gave him the nickname "King of Pinotage"[66].

Simon Halliday established Raisin Social, a wine importing firm, in the UK in 1986[67]. In 1990, when Nelson Mandela was released from prison and the Apartheid policy was coming to an end, Raisin Social started to import wines from South Africa into the UK market and marketing them through leading supermarket chains such as Tesco, ASDA and Sainsbury's. Currently, Raisin Social has a 35% share of UK market for Cape wines in value terms. Over the years, the company has been instrumental in creating and supporting brands in the very competitive UK wine markets which has been flooded with a plethora of New World wines from Chile, Australia and South Africa since the 1990s.

When Mr. Truter and Mr. Jaap Hendriks, the farm supervisor at Kanonkop Estate and founder of the Stellenbosch Farm Workers Association (which led to the South African Farm Workers Association), started to develop the idea of an empowerment company in 1998, they went through various time consuming steps.

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[64] The company's official name is Bouwland Landgoed Ltd. Bouwland is an Afrikaans word meaning "land to build on", thus reflecting the farm worker capacity and income building objectives of the company. The company has a web presence at www.bouwland.co.za.

[65] More information can be found at www.beyerskloof.co.za.

[66] Further testifying to his skills as wine maker, Beyers Truter won the Winemaker of the Year award at the International Wine and Spirit Competition (IWSC) in London in 1991. In 2003, Beyerskloof won the award for South African Wine Producer of the Year at the IWSC. The 1995 vintage of the Beyerskloof Cabernet Sauvignon was voted the best Cabernet Sauvignon in the world at the IWSC in 1998.

[67] More information can be found at www.raisin-social.com.

First, they brought together a selected group of farm workers from four wine estates (Kanonkop, Beyerskloof, the old Bouwland, and Uyterwyk). In total 60 people from 39 PDG families became beneficiaries of the Bouwland Deelnemingstrust (Bouwland Participation Trust) which was established to organize the PDG in a legal entity. These 39 households (132 people) are all part of the PDG and represent a motivated farm community (because of their long history at the estates and now also because they take pride in ownership). The main long term focus of Bouwland is to provide a more opportunity rich future for the households and their future generations.

Second, financing was arranged to fund the procurement of vineyard and equipment. The funding was to come from three sources: (1) equity from the commercial farm owners (Truter, Halliday); (2) equity from the farm workers obtained through a land grant from the government; and (3) a low-interest commercial bank loan. The next section provides more detail on the financing structure.

Third, it was decided that a 56ha section of the old Bouwland (133ha) would provide the best land available for the empowerment scheme. Of these 56ha, 39 were planted under various varieties of grape vine in 2000. The land was chosen for two main reasons. First, the land is located near the farms from which the farm workers were selected making it easy for farm workers to reach Bouwland. Second, the fact that a vineyard as well as markets for the Bouwland label was already established appeared to give the new company a head start[68].

The concept for the new Bouwland was worked out in detail in 2002 and 2003. The land grant application was filed in April 2002. In November of 2003, Byers Truter and Simon Halliday (representing Beyerskloof) sold 74% of the 56ha section of the old Bouwland as well as the Bouwland label to the Bouwland Trust and the new Bouwland was established as one of the first and largest empowerment schemes in the Cape's wine industry[69]. Its book value at start up was R10 million (US$1.7 million)[70].

A not unimportant benefit for the directly involved Beyerskloof and Kanonkop wineries is that their key role as initiators of and key investors in this headline-catching empowerment scheme will positively affect their BEE score. The Black Economic Empowerment score indicates how well the firm has contributed to the inclusion of black people in the economic system[71]. It is an

[68] Bouwland wines had been introduced and marketed as Beyerskloof's second label for penetration of the supermarket sector by Beyers Truter. Starting from a 1997 vintage, the wines had build up a strong reputation for quality, especially for its pinotage wines. For example, the Bouwland 1998 Reserve Pinotage is one of the highest rated pinotage wines ever. Since Bouwland became an empowerment company in 2003, it has marketed some of the wines that had already been bottled under the old Bouwland (but with the new label) as well as two new wines, a 2003 Cabernet Sauvignon – Merlot blend and a 2003 Chenin. The latter two are currently the only wines being sold by Bouwland.

[69] The design of the label was changed to reflect its new ownership structure.

[70] The exchange used throughout this report is R6 for US$1.

[71] The Broad-Based Black Economic Empowerment Act of 2003 established a legal framework to assist South Africa's socio-economic transformation from one characterized by "vast racial and gender inequalities in the distribution of, and access to opportunities, wealth, income, skills and employment" to one where historically disadvantaged South Africans are economically empowered through changes in ownership and management structures, skills development, facilitated market access and selective investment strategies. From the 2005 financial

important variable influencing for example the government's decision on extending the legally required liquor licenses to wineries like Beyerskloof and Kanonkop.

The Critical Role of the Land Redistribution Program

It took four years before Bouwland Landgoed Ltd (Bouwland) was established, in part because of the time it took to negotiate a land grant with the Ministry for Agriculture and Land Affairs. It is this land grant which made the project feasible.

South Africa's land reform program aims to ensure the transfer of 30% of agricultural land from white commercial farmers to black South African citizens over a period of 15 years (2001-2016). In the context of the Bouwland case, an important component of this program is the land redistribution for agricultural development sub-program (LRAD). Land grants (from the Department of land Affairs via LRAD) can be and often are combined with land development grants (from the Department of Agriculture via the comprehensive agriculture support program CASP).

Under LRAD, the rural poor (except for white males) can access grants ranging from R20,000 to R100,000 ($3,500 to $17,000) depending on their own contribution in kind, in labor or in cash. "In kind" implies contributions of for example equipment, livestock or construction materials valued at their market value. "In labor" refers to so-called "sweat capital" whereby applicants provide free labor to the project up to a maximum of R5,000 per applicant[72]. Given that for most of the rural poor this is the most accessible "own contribution", sweat capital is rarely less than R5,000 per applicant. "In cash" refers to cash contributions from the applicant's own funds or from borrowed capital. The matching grant operates on a sliding scale whereby the grant decreases in as a percentage of the total cost (i.e., grant + contribution) from 80% for the smallest grant to 20% for the largest grant. Furthermore, people can apply as a group in which case the own contribution and the matching grants are scaled up by the number of individuals.

For example, the 60 Bouwland Trust members each obtained a grant of about R60,000 that provided a match for their "individual contributions" of roughly R100,000. At the aggregated level, a R3.8 million LRAD grant was matched by R6.2 million in a combination of sweat capital and cash (for a total farm value of R10 million).

The sweat capital represents only a small part of the R6.2 million in own contribution. Each of the 60 members is expected to provide R5,000 worth in free labor to Bouwland although some may replace some of this sweat capital by in-kind contributions. The aggregated contribution of the sweat capital is thus R0.3 million.

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year agri-food firms are expected to report on BEE procurement spent and agricultural support services initiatives in their annual report. The Code of Good Practices (CoGP) framework released by the Ministry of Trade and Industry provides for annual third-party audits that will attach a BBBEE score to the firms' performance. This score will allow for a classification of firms from a limited to an excellent contributor to BBBEE (four classifications).

[72] For example, at R8/hr a R5,000 sweat capital contribution implies farm workers have to contribute 625 hours or just under 80 days of work to the project (spread out over several years).

The remaining R5.9 million came in cash from two sources, a R2.4 million loan from the commercial farmers (Beyers and Halliday) and a R3.5 million commercial bank loan. The latter came in the form of a Khula business loan. A Khula business loan is low-interest baring lending instrument provided by Khula Enterprise Finance Ltd, an agency of the Department of Trade and Industry established in 1996[73]. Khula's business loans and other types of credit assistance target micro, small and medium enterprises through selected lending institutions (Absa commercial bank in the case of Bouwland). The commercial bank also supplied an overdraft facility of R1.5 million for normal running costs and for buying and bottling of additional wine (Cape Business News 2003). Further funding came in the form an additional R571,000 grant from the Western Cape government which was used by Bouwland to buy tractors.

The process of obtaining a land grant starts with the submission of a grant application. Initially land grants were given almost on a first come first serve basis. Since late 2004 however, a more selective and highly structured project selection mechanism is in place. In the new mechanism, a project management team (PMT) is put together to score the various grant applications. This PMT consists of people from various government departments (water and forestry, land affairs, agriculture, local authorities, environmental officers, and so on). During the first phase, the PMT is led by the Department of Land Affairs. The score is determined by farm history, land potential, risk profile, institutional arrangements, proposed training programs and social factors. Depending on the amount of funding available, the highest scoring projects are selected.

In the next step, a business plan is developed for the selected projects according to a standardized structure by the PMT or a consultant appointed by the PMT. This structure includes a detailed cash flow analysis. Once the business plan is finished it is send to the District Assessment Committee (DAC) who formalizes the decision[74].

After it is approved by the DAC, the project gets funding, a land purchase takes place and the land development phase begins. This stage is reached usually about one year after the initial application. At this point, the Department of Agriculture takes over from the Department of Land Affairs in terms of PMT leadership. The PMT remains in place to follow up with the project until all of the grant money has been allocated. This allocation can take five years depending on the project but does usually not take more than one or two years. Once all of the grant money has been allocated, the PMT is disbanded. The Department of Agriculture however remains involved as an evaluator and mentor for a couple more years (visiting the project once a year).

Although Bouwland fell under the old system, under which the applicants submitted their business plan with their application, the business plan was further developed and refined in collaboration with the Department of Land Affairs (similar to the current procedures). The most critical factor making the Bouwland project an attractive candidate for LRAD funding was the involvement of well-known wine maker Truter Beyers. Not only does this wine maker bring with him his vast knowledge of wine making (from grape to glass), he also has excellent relations

[73] Interest rates on Khula business loans are 3% under the prime interest rate (8% in stead of 11% in the case of Bouwland). More information can be found at www.khula.org.za.

[74] The DAC will have many of the same managers as the PMT but has a stronger municipality component. The DAC may request for small changes but proposal rejections are rare (99% chance of success).

with both farm workers and wine buyers. Furthermore, Beyers' significant share in Bouwland links his reputation to that of Bouwland and implies a strong commitment to see the project succeed[75]. Apart from the risk-reducing presence of an experienced mentor-shareholder, the Bouwland case looked attractive to the Department of Land Affairs because of the fact that the trust members are mostly farm workers from well-known wineries and thus are very skilled in the technical aspects of running a vineyard.

Since the introduction of LRAD, about 125 projects were approved and implemented under this sub-program in the Western Cape Province. There is however a lot of variation in the success of these projects which can be classified into four categories: (1) excellent projects, where everything is going according to plan or better; (2) successful projects, where success lags the planned development path but the project is expected to correct for this itself; (3) failing projects, where the project needs an additional push from an external organization but then would be back on track; and (4) failed projects, where even with additional outside assistance success is unlikely (they are intrinsically flawed). Mainly due to the less than rigorous initial project selection process, about 35-40% of the projects fall in the latter two categories. The projects that have received grants under the current far more selective system all fall in the upper two categories. Bouwland falls between the first and second categories. Other notable success stories here are Crispy Coolers (cold storage of fruit) and Thandi (fresh fruits and wine).

Bouwland's Future Development Plans

Bouwland's development strategy is multi-pronged. First, the company wants to bring most of its currently outsourced production and management structure in-house (it currently relies heavily on Beyerskloof). Second, the company plans to use 6ha of the farm to establish building facilities which will not only house the administrative offices, the storage facilities for farm equipment and a wine cellar, but also its own wine tasting room. Third, once a wine tasting room is in place, Bouwland can start generating a new income stream from tourism. Its vineyard's location, close to a golf-course, on one of the major wine routes and with a rich bird-life and a stunning view of the Stellenbosch region, is well-suited for tourism development. Fourth, the company wants to bring an additional 15ha under wine production, including 5ha adjacent to its current farm which it would like to buy from Beyerskloof. Fifth, it wants to maximize the return from its relatively large dam by using it for fish farming.

While these expansions hold great potential for Bouwland, the realization of this potential critically hinges on its credit access, revenues from wine sales and cash flow management[76]. It will also depend on its managerial and entrepreneurial skills. In the context of developing these skills, Bouwland was assisted by the USAID Farmer to Farmer program in the development of its 2005-2008 business plan.

[75] This sentiment is echoed in recent press articles where Truter Beyers is quoted as stating: ""One thing is for sure: taking into account all my previous awards and accomplishments, my share in Bouwland Estate is the most precious of them all and an achievement that I will not sacrifice." - www.wineland.co.za, January 2004.

[76] The cost for the various expansions and constructions is estimated at R5 million ($800,000). Most of the required credit will for the greater part have to come from commercial banks. Additional government grants may provide further financing.

4. Various Markets and their Procurement Systems

Although the company has plans to diversify into wine tourism, it currently only sells grapes (noble red varieties cabernet sauvignon, merlot, pinotage) and wines. Bouwland sells the grapes from its own vineyard to Beyerskloof. At the same time it buys good quality wines from vineyards in the wider Stellenbosch region for blending and bottling wines under the Bouwland label. The wines are blended, bottled and stored at the Koelenhof Wine Cellar in Stellenbosch where Bouwland has bought a quota. Bouwland currently does not process its own grapes because they do not yet have the working capital required for wine maturing in oak barrels (grape processing and wine maturing can take one and a half to two years). Selling their own high quality grapes and using the proceeds to buy wines of lesser, but still good quality positively affects cash flow. Buying wine is especially attractive at this stage because an oversupply of wine has kept prices low[77]. By 2006, Bouwland expects to start using its own three grape varieties (pinotage, cabernet sauvignon, merlot) for the production of a high quality Cape Blend estate wine. The latter would be available on the supermarket shelves by 2008. By 2010, Bouwland expects to be processing 100% of its grapes.

The company harvested 250MT of grapes from 36ha in 2004 (7MT/ha) and 230MT from 39ha in 2005 (6MT/ha). The drought-induced lower yield in 2005 does not necessarily imply reduced revenues. Lower yields often lead to higher quality and higher prices per MT.

Bouwland currently markets two wines, a 2003 Chenin Blanc and a 2003 Cabernet Sauvignon Merlot blend. Both wines are made by famous wine maker Beyers Truter assisted by two apprentice wine makers. In 2004, Bouwland sold around 10,000 cases of 12 bottles (90,000 liter). The company plans to broaden its product line with wines based on cabernet franc and shiraz grapes and aims to sell 25,000 cases (225,000 liter) per year by 2008. The wine is marketed through agents in local as well as in international markets. Bouwland critically depends on these agents for the distribution and marketing of their wines.

In the domestic market Bouwland wines are sold through three channels. The first two channels are two agents: (1) Somerset Beverages who is the main distributor and sells the wines to supermarkets and smaller wine shops, and (2) South African Wine Merchant, who sells Bouwland wines from its website Cybercellar[78]. These agents sell Bouwland wines on commission. Although these agents have a pan-South Africa mandate, they hold no exclusive distribution rights. Supermarkets buy the wine (they do not hold them on consignment) and they will re-order according to sales. The third domestic marketing channel for Bouwland wines is the Beyerskloof wine tasting room which also promotes and sells Bouwland wines.

The main reason why Bouwland does not market its wines directly to a supermarket chain like Shoprite is that such chains do not work through their own distribution centers but through the

[77] Between 2000 and 2004, prices for wine sold in bulk have gone down with 13%, 20% and 33% for cabernet sauvignon, merlot and pinotage respectively (SAWIS 2005).
[78] Available at www.cybercellar.co.za. This website indicates that they distribute South African wines, including the Bouwland wines, in the US market as well.

distribution system of agents[79]. Given that Bouwland does not have the capital or the knowledge to set up its own distribution logistics, it has no choice but to rely on agents. Currently Bouwland wines are available at Pick 'n Pay supermarkets. In the domestic market, Bouwland's Chenin wine is sold at R17/bottle wholesale, R20/bottle retail at the farm (i.e., the tasting room at Beyerskloof) and R17-20/bottle (depending on the quantity bought) at Cybercellar. The higher quality Cabernet Sauvignon – Merlot blend is sold at R21/bottle wholesale ($3.5), R25/bottle retail at the farm and R36-41/bottle at Cybercellar[80].

In the export market wines, the Bouwland label is sold in 20 foreign markets, with 75% of the volume being marketed through agents in Belgium, the Netherlands and the UK. The close partnership between Beyerskloof and Bouwland plays a critical role in the export of Bouwland wines. It is the marketing team of Beyerskloof, and mostly Truter Beyers himself, who promotes the Bouwland label in the European market together with the Beyerskloof wines[81]. According to Thomas de Fonseca of Delta Fijne Wijnen, Bouwland's agent in Belgium, Beyers Truter's strong promotion is a critical elements in the firm's marketing success. Delta Fijne Wijnen, which buys roughly 1/3 of Bouwland's output, sells most of the Bouwland wines to the Belgian stores of the Carrefour supermarket chain[82]. This implies that Bouwland's sales are very dependent on this one marketing arrangement. This Belgian distributor also markets the Bouwland wines in other European markets, but this is still in the explorative stage. Retail prices for Bouwland's red blend are around $7 per bottle in the European market.

Sales of Bouwland wines lag expectations, especially with regard to the domestic market. In the domestic market, sales stutter because the brand is not sufficiently supported by the sales agents who also represent the interests of many other, mostly more established labels. Furthermore, Bouwland's marketing director has taken up a long-term position in the UK thus leaving a large vacuum in the marketing administration. For example Bouwland's white wine was taken from the shelves at Pick 'n Pay supermarkets because it did not sell fast enough and competition for shelf space is fierce. By May 2005, domestic sales by agents were so low that the Beyerskloof tasting room sold more cases than the agents. Its key sales agent in the domestic market had indicated that it could move 1,000 cases per month, but in reality sales are more in the order of magnitude of 10 cases per month.

In the export market sales have been growing in key markets, but still lag sales projections. For example, sales of Bouwland wines in Belgium, its biggest export market at the moment, jumped from 15,000 to 30,000 bottles a year in 2003 and will likely reach 40,000 bottles in 2005. This

[79] The wine selection and prices are centrally determined by the supermarket chain's wine buyer, while branch managers place their orders individually with the various wine agents. Consequentially, the wines do not physically flow through the supermarket's centralized distribution system as do most other fast moving consumer goods.
[80] These prices include 12.3% sales tax. Wholesale prices received by Bouwland net of tax are thus R14.9/bottle for the Chenin and R18.4/bottle for the Cabernet Sauvignon – Merlot blend.
[81] This does not mean that Bouwland and Beyerskloof wines are distributed by the same agents. For example, Bouwland's agent in Belgium does not distribute Beyerskloof. It sells Kanonkop wines and feels the inclusion of Beyerskloof which is a more high-end wine similar to Kanonkop would imply adding a competing wine in the same quality category. Bouwland is of a more complementary quality level and thus gives the distributor a better balanced product portfolio.
[82] Carrefour is the second largest supermarket chain in the world with sales of $65 billion in 2002. Distribution within Carrefour, which has a presence in 30 countries, remains limited to Belgium mainly because the heterogeneity of the consumers in the various markets.

jump in sales coincided with the establishment of the new Bouwland. According to Bouwland's wine distributor in Belgium this was almost entirely due a change in the label, illustrating how marketing is a business of small details with big impacts[83]. Bouwland's very active participation in price promotions further stimulated sales. For example, Bouwland wines are being promoted in buy-two-get-one-free deals. Other promotions include the sale of magnum (3L) bottles for the Christmas holidays. The cost of these promotions is split equally between Bouwland and Carrefour.

Nevertheless, of the total production of 15,000 cases of the 2003 Cabernet Sauvignon – Merlot blend, 5,000 have not yet been sold. Of the 2003 Chenin, 600 crates have not been sold. These relatively high stock levels explain why new wines have not been bottled yet: a start-up company like Bouwland cannot afford to have too much working capital tied up in stocks of finished product. Apart from the lack of marketing support, sales have been below expectations because Bouwland came into the market during a tough time. With a strong Rand, even well-established wine exporters found it increasingly difficult to export their wines. This resulted in a refocusing on the domestic market making it more competitive than ever before. However, that Bouwland has succeeded to emerge in these challenging circumstances has hardened the company and has positively affected its ability to compete.

Given the lagging sales, Bouwland is currently revising its marketing strategy. It plans to put together a new marketing team that will work with the agents to promote the Bouwland label as representing good quality, moderately priced wines. This new marketing team will ideally be supported by an experienced external marketing specialist. Three elements will likely be central in the new marketing strategy.

First, Bouwland wines will likely be marketed more aggressively to the domestic food service sector. For example, Bouwland's strategic partner Beyerskloof is well-linked to the restaurant trade (selling to over 800 restaurants and other food service firms). While Beyerskloof generates more sales through supermarkets, restaurant sales represent lead sales that create awareness amongst consumers. Some of these enlightened consumers will then buy a crate of 6 bottles of Beyerskloof from a retailer. Unlike the real top wines which are sold in restaurants and specialized wine shops almost exclusively, Bouwland (even more so than the more high-end Beyerskloof) plans to keep its strategy focused on middle-income households who buy their wines from supermarkets.

Second, price and other promotions in supermarkets may also be part of the new marketing strategy. However, price promotions are not very well-developed for wines in South Africa, not in terms of point-of-sales presentations or in terms of consumer shopping behavior. Promotions also bring in the added challenge of how to divide the cost they bring with them over the winery, the agent and the retailer.

Third, Bouwland will likely start using its story (a winery owned by the workers) as part of its marketing strategy. With many other BEE initiatives arising in the wine industry, Bouwland's competitive first-mover advantage in this area may be eroding fast. On the other hand, the impact

[83] The label changed to reflect the fact that the farm workers now own the winery. It became a far more modern looking label which apparently held far greater appeal for consumers in Belgium.

of social value-adding may be limited. In the Belgian market for example, consumers and the media have shown very little interest in the uplifting story of farm workers become owners of a winery. As indicated above, a change in label however, had the effect of doubling sales in this market.

Each of these three marketing strategy elements represents a substantial cost and places the company in a catch 22 situation. Bouwland is undercapitalized and currently does not have, internally, the financial resources to feed the intensified marketing effort. Loans for this type of investment are also difficult to obtain given that they do not bring in new assets that add collateral value. And without an intensified marketing effort, sales and thus financial resources (from retained profits) are not increasing.

5. Farmer Capacities and the Emerging Business Model

We distinguish three key components in the business model used by the farmers to link up with the supermarket: organization, governance, and technology. This section will discuss each of these components, explaining the various choices that were made and the problems that were encountered.

Organization

The management structure of Bouwland is strong, consisting of six experienced directors. The strategic management lays in the hands of Jan Hendriks, BDT's chairman, and Beyers Truter who both have over 20 years of experience in the wine business. The other key management positions include finance, marketing, operations and technology. Again these positions are occupied by experienced employees. For example, the finance manager, Cecil Jaap, has 33 years of experience in the wine industry. He retired in 2000 as the quality control manager at Stellenbosch Farmers Winery (later merged into Distell) and was a consultant to the industry before joining Bouwland.

The only weak part in the management structure is on the marketing side. For the export market there is a strong reliance on the sales promotion done by Beyerskloof (Beyers Truter) on behalf of Bouwland. This reliance is the result of both choice and necessity. Beyerskloof is an experienced and reputable winery in the eyes of buyers in the export market. Bouwland has limited working capital and cannot afford extensive travel by marketing representatives to the export market. While the marketing through Beyerskloof has been successful, Bouwland has of yet not been able to establish its own face. With regard to the domestic marketing, Bouwland's initial marketing manager, Mrs. Africa, has taken up a longer term position in the UK and the void she left has not yet been filled. Furthermore, unlike for most other parts of the business Bouwland receives relatively little support from Beyerskloof for the domestic market.

Given that Bouwland's main weakness is in marketing, a restructuring of the marketing management has been planned. A new marketing team under Henri Gouws (currently the assistant marketing manager) will be established. In collaboration with external wholesale agents, Bouwland's marketing team will be given the means to more actively promote the wines and generate sales, initially mainly focused on the domestic market where sales are lagging most.

The extent to which this effort will be effective will critically depend on the working capital that can be freed up for this activity.

There are no full-time salaried employees at Bouwland. Labor and management come in three forms. First, labor and management contributions by shareholders are mostly part time and free. It is part-time, because nearly all have a full-time job on one of the four wine farms which were involved in the establishment of Bouwland. It is free because this time is part of their sweat capital contribution. Second, some employees in the marketing team are paid 100% on a commission basis. This is for example the case for Henri Gouws. Third, most management, administrative, productive, post-harvest and marketing functions are outsourced and paid for on a cost-sharing basis with Beyerskloof.

The new Bouwland represents roughly 40% of the old Bouwland (56ha of the original 133ha). Beyerskloof still manages the two sections as one farm. This implies that input procurement and field operations are managed by Beyerskloof and Bouwland pays 40% of these costs. For example, Bouwland pays 40% of the salary of a farm manager employed by Beyerskloof to manage the whole 133ha. This farm manager is also a BDT member. The manager oversees the work of a permanent workforce of 21 farm workers (nine of which are BDT members). All these farm workers are on Beyerskloof's pay-roll. Costs which are specific for Bouwland are paid 100% by Bouwland. Examples here are hiring a group of seasonal farm workers to work on Bouwland only or purchasing bottles and labels for Bouwland's wines. With regard to the use of Beyerskloof's equipment such as a tractor, Bouwland pays only for variable costs (gas, repairs).

Another important part of the business which is currently outsourced to Beyerskloof is the administration. All the accounts are managed by Beyerskloof's administration unit. An external (third party) accountancy firm audits the accounts on a monthly basis and submits the financial reports to Bouwland's finance director for review. Annual reports over a March-February book year are issued in March each year and discussed within the BDT in September[84]. Given the importance and confidentiality of the administration unit, it will likely first be shifted from Beyerskloof to a separate accountancy services group and then be brought in-house.

As Bouwland grows and its shareholder-beneficiaries build their capacities, it will gradually shift from outsourcing to internal management. The experienced management team provides mentorship to the already relatively well-educated and experienced BDT members. For example, two BDT members are learning the wine making trade by working alongside Truter Beyers. These assistant wine makers have also participated training programs in Europe and are well on their way to becoming wine makers in their own right. Many BDT members have grown up on wine farms and have build up expertise in vineyard cultivation and have received further training through the Stellenbosch-based Vineyard Academy. Furthermore, being part of Bouwland, the BDT members are now learning the business side of the wine industry as well as the implication of being owners versus employees. Henri Gouws for example has already been on sales promotions trips to Europe and succeeded in obtaining a sales contract with a major chain of wine and liquor shops in Holland for the old Bouwland. At this moment Henry Gouws, who is also a priest, still lacks the kind of pushiness and hardness that is required in getting the sales.

[84] Bouwland's first annual report came out in March 2004 (2003 report). The 2004 report (March 2005) was the first to cover a full year.

However, the objective is that in a few years time, Henri Gouws will be able to take over the promotion of Bouwland wines in the export markets from Beyers Truter and become the "face" of Bouwland. Another example is provided by another member of the marketing team who worked herself through high school and received training in wine-tasting in France. The marketing team further improves its skills by managing the tasting room and by participating in trade shows. Some training and excursion programs are paid for by Bouwland, others are paid by (and implemented at) the various farms where BDT's members still work. Bouwland's management plans to bring 60% of all management and labor activities in-house by the end of 2006. The most likely first candidates for internalization are the marketing manager, the farm manager and the administration unit. A complete internalization of all currently outsourced services is not expected before 2013.

Governance

Contracts

Bouwland does not have formal contracts for the sale of its products. All grapes are sold to its close partner Beyerskloof, while the wines are sold to agents in both domestic and export markets that place a new order only when minimum stock levels are reached.

Standards

Bouwland is not a farm established from scratch by its current owners, but rather an existing farm bought by the farm workers. As such, Bouwland already complied with the applicable quality and safety standards when it was established as a new firm. The new Bouwland's focus on the middle-to-high quality segment of the market and its experienced management and workforce have given Bouwland both the incentive and the capacity to maintain compliance with the various standards that apply to the wine industry in South Africa. Most notably in here is the IPW standard. The scheme for the Integrated Production of Wines (IPW) covers the whole wine supply chain[85]. Although compliance is voluntary, non-compliance implies exclusion from most marketing channels and consequentially 80% of cellars and processors representing 95% of grapes harvested had joined the scheme by 2004. IPW standards cover a wide set of variables around three broad themes: (1) product quality, (2) environmental protection, (3) food safety. Bouwland also complies with South Africa's Wine of Origin certification scheme was officially instituted in 1973. This scheme deals with the source of the various wine inputs and the associated record keeping. This facilitates compliance with the traceability requirements for the EU, Bouwland's main market[86]. Bouwland's customers (sales agents) are not too concerned about standards and mainly rely on the certification of the wines by the South African Wine and Spirits Board. Although given its shareholder structure Bouwland would likely qualify for fair trade certification it has not applied for it nor does it have plans to do so.

[85] More information on IPW can be found at www.ipw.co.za.
[86] Since January 1, 2005, the presence of traceability systems is required for all operators in the food industry who want to supply the EU market (Wynboer 2005b). The principles and requirements are contained in EU regulation 178 of 2002.

Executive Management

Since BDT owns 74% of the shares, they take all the decisions. This control is a key factor distinguishing Bouwland from other equity share schemes. The BDT is headed by a board of nine trustees who meet once a month to discuss the progress of the farm. The trust also oversees a number of work groups within BDT. Not withstanding their majority share, BDT solicits the advice from Beyers Truter, especially for more critical strategic decisions such as the negotiation of a marketing arrangement or larger capital expense decisions (e.g., purchase of a tractor). Furthermore, Beyers Truter's 26% share in the company allows him to block a special resolution. A special resolution refers to fundamental strategic choices such as selling the company or fundamentally changing its nature.

Technology

With regard to technology, Bouwland currently relies heavily on the know-how and physical capital of other organizations. Beyerskloof's farming equipment has been critical on the production side. Beyerskloof wine maker Truter Beyers and the Koelenhof Wine Cellar, where Bouwland's wines are made, bottled and stored, have been critical in the value-adding post-harvest process. Distribution agents have been critical in the marketing and sales of Bouwland's wines.

However, over time Bouwland is gradually bringing technology and know-how in-house. In production for example, it currently has two tractors of its own which replaced tractors rented from Beyerskloof. Having no buildings of its own however, Bouwland still uses those of Beyerskloof. Another example is the transfer of wine-making knowledge and skills. Two assistant wine-makers are working with distinguished wine-maker Truter Beyers and are taking over more responsibility over time. These two assistants have tertiary education in wine-making. They are both BDT members and currently employed at the famous Kanonkop estate.

Bouwland's size and access to water facilitate further investments in the farm's technology. With a size of 56ha, Bouwland is smaller than the average of 85ha for wine grape producers in South Africa's wine districts (Wynboer 2005a), but it is substantially larger than some of the other BEE projects in the wine industry[87]. This larger scale facilitates investment in technologies which for the greater part require a minimum scale of operations in order to be affordable. The farm also owns a 3.5ha dam which provides secure access to water and facilitates further investment in the irrigation infrastructure. The dam's size allows for the irrigation of 87ha of vineyard when full, implying that some of the surplus water could be sold to neighboring wine farms. The dam also creates opportunities to invest in aquaculture technology.

6. Economic Impact on Farm Workers

Bouwland has not provided an extra income for the trust members. There is no income from new jobs as the trust members have kept working at their old jobs at the various wineries while providing free labor to Bouwland as part of their "sweat capital" contribution. However, some of

[87] Winds of Change in the Paarl wine region for example only has 12ha (Mangxamba 2005).

the currently outsourced management jobs that Bouwland plans to bring in-house could provide better paying jobs to some of the trust members.

Furthermore, Bouwland will provide farm workers with an extra source of income once dividends are paid out. Dividends are not expected for the next five to ten years however for two reasons[88]. First, benefiting trust members must first complete their sweat capital contribution. Second, Bouwland first needs to service its Khula loan and bank overdrafts as well as finance further investments in upgrading its organizational and physical infrastructure[89]. Gross profit for Bouwland in 2004 can be estimated at R800,000 or $130,000[90]. This is roughly in the same order of magnitude as the average annual principal plus interest payments on their Khula loan, indicating Bouwland has no fundamental problem with servicing its main loan[91]. However, it leaves relatively little room for upgrading through retained earnings or additional loans. If sales cannot be maintained or increased, Bouwland may experience a cash flow problem[92]. However, if the company succeeds in bringing 54ha under vineyard and marketing 25,000 cases of wine per year by 2008 (its current sales objective), its gross profit could pass R1 million ($170,000) per annum (or over R10,000 or $1,700 per trust member per year or roughly the minimum annual salary for farm workers).

The farm workers have started to build up equity. Both through rising land values and further development of the land, the value of Bouwland Estate (vineyard and label) has increased since its inception in 2003 with about 15% to about R12 million ($2 million)[93]. This implies that each of the 60 trust members has a share with a gross book value of roughly R150,000 ($25,000). Bouwland's debt position was not available and hence equity stakes could not be calculated. However, it was indicated that Bouwland had a positive net equity of "several millions" which would imply that each worker has an equity stake of at least R30,000 ($5,000) in 2005. Thus, with an investment of R5,000 in labor and no investment of financial equity capital, farm workers in the Bouwland Participation Trust have an equity of $5,000 by 2005 which by 2015 is expected to increase to at least $25,000.

A further fundamental impact of Bouwland is that the farm workers as a previously disadvantaged group now start to understand the business side of running a winery in far greater

[88] In order to reduce the potential friction related to the absence of dividend pay-outs, a small Christmas bonus was paid to each of the trust members in the form of a R200 ($35) Pick 'n Pay supermarkets voucher in 2004.
[89] Cecil Jaap, Bouwland's financial director, indicated that the company aims to settle all its debt by 2015.
[90] Income data were not provided by Bouwland. However, an estimation was calculated as follows. Assumptions made: grapes sold at R3,000/MT (reflecting higher grape quality) and produced at an average cost of R1,800/MT (based on the average in Wynboer 2005, lowered with 10% to reflect it is an established farm). Wine sold (wholesale or retail) at an average net price of R17/bottle and bottled at a cost of R13/bottle, consisting R4.5/bottle for the wine (Wynboer 2005), R7.5/bottle for packaging (bottle, cork, label, foil capsule) and R1/bottle for labor and machine costs. Gross income from grapes sales = 250MT * R1,200/MT = R300,000. Gross income from wine sales: 10,000 cases * 12 bottles/case * R4/bottle = R480,000. Total gross income: R780,000. From gross income Bouwland needs to pay off various loans, pay for non-included overhead costs and finance further investments.
[91] Assuming the Khula loan is paid off linearly over 10 years.
[92] Two of Bouwland's directors already alluded to potential cash flow problems in a recent press article (Mangxamba 2005).
[93] This is a conservative estimate. Bouwland's finance officer estimates the value of the winery at R15 million ($2.5 million) in 2005 and expects this value to increase to R20 million ($3.3 million) in 2006. Land in the Stellenbosch area is of high quality and in high demand and hence land prices rise fast.

detail. Most of the farm workers have extensive experience in the technical aspects of vineyard management, but few have had managerial positions or have been involved in the wine-making, the financial management or the marketing of the wine. Now they are now involved in each of those aspects, either as participant in the annual stockholder's meeting or (and increasingly so) as mid- or upper-level managers at Bouwland. However, the composition of BDT is still somewhat skewed with a substantial capacity gap between the ten trustees leading BDT and the remaining 50 BDT members. While these 50 are learning about the business side and the long-term financial implications of being a shareholder, it is at times difficult for them to understand why the main effect until now of their stake in Bouwland is that they have provided free labor without seeing any benefits. At a more psychological level, the farm workers, some of which have been working on the farms for more than 40 years, can now, as shareholders, experience the pride of ownership which they can hand down to their children and on which one cannot set a price.

7. Conclusions and Implications for Development Programs

Bouwland, as a BEE project, resulted in 60 PDG members owning a majority share of a winery in the heart of South Africa's wineland. The project's relatively good start depended on the following three critical success factors. The nature of these success factors provides guidance for future development programs.

First, through *careful participant selection*, the firm assured itself access to the knowledge and technology required to be successful in the wine industry. Technical knowledge regarding wine production was brought in by the PDG members themselves as most of them have been working in vineyard for many years. A commercial farmer brought in knowledge on wine making. Experienced PDG members, in collaboration with the commercial farmer, provided leadership and brought in critical skills regarding business administration. Further emphasizing the importance of careful participant selection, for the one key management position Bouwland failed to fill, that of the marketing manager, the company is struggling the most.

Second, by *prudently managing its cash flows* in a challenging market, Bouwland optimized its chances for economic survival. The company has not paid out dividends and neither has it obtained additional loans to finance major investments in new technology or expansions. This also implies that most of the social benefits of the project (e.g., improvements in housing, education or farm worker income) were made a secondary priority. The assumption here is that if the firm is profitable and grows in size, volume and profitability, it will in the long term create social benefits indirectly through the increased incomes and net worth of the beneficiaries.

Third, Bouwland's *extensive outsourcing of labor and management* not only reduces its overhead costs but also provides access to experienced business units and the excellent learning opportunity they represent. Most activities from production management (farm manager) over post-harvest management (wine maker) and records and accounts management (administrator) to marketing management (commercial winery, sales agents) are initially outsourced by the company. As the farm workers build their capacities over time each of these activities will be brought in house.

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Case Studies of Farmer Organizations Linking to Dynamic Markets in Southern Africa:

Case Study 4: The Haarlem and Ericaville Honeybush Producer Groups, South Africa

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1. Introduction

This report presents a case-study that documents and analyzes how two groups of emerging farmers are using community and commercial land to produce honeybush (a herbal tea plant) for a growing domestic and export market.

Assisted by ASNAPP (Agribusiness in Sustainable Natural African Plant Products), an NGO focused on natural plant products, the two farmer communities are amongst the pioneers of plantation honeybush production. Until the late 1990s, honeybush was only harvested in the wild. As the market for herbal teas is growing and the honeybush processing sector develops product and process standards for the industry, plantation production will over time replace wild harvesting. Although the two farmer groups operate under very different organizational formats, honeybush production is becoming an increasingly important source of income for both groups.

The report is structured as follows. In the next section we briefly discuss the methodology used. Section 3 provides some background information on the Haarlem and Ericaville farming communities and discusses the context in which they established their honeybush plantations. Section 4 dissects the emerging honeybush supply chain and the various markets they feed into. Section 5 presents and analyzes the business model that links the farmers to the market. A brief analysis of the impact of honeybush production on farmer income is provided in section 6. Finally, section 7 concludes and presents some implications for development programs.

2. Methodology and Analytical Framework

This report represents a single explanatory case study (intended to feed into multiple explanatory case-study analysis). The case-study presents data bearing on cause-effect relationships, namely, it explains how a group of emerging farmers succeeded in becoming an integral part of a modern market channel. The case study is the method of choice when the phenomenon under study is not readily distinguishable from its environment (Yin, 2003) which in this case are the emergence of smallholder farmer organizations (SFOs) and the market environment it operates in.

Theory is central in explanatory case-studies (i.e., these case studies have a research objective rather than a teaching objective). Theory helps in the selection of the case(s) and in the selection of the variables. In this case we are guided by the analytical frameworks presented in figure 1 (static perspective) and figure 2 (dynamic perspective).

From a static perspective, the nature of the business model (supply chain architecture) is the result of the product and transaction attributes of the specific channel in question (modern vs. traditional) on the one hand, and the capacities of the agricultural producers on the other hand. Within a given business model, we distinguished three key dimensions: technology, institution, organization.

A dynamic perspective implies models with positive or negative feedback loops. The sustainability of business models, and beyond that, the upgrading of business models, is here modeled as the outcome of a positive feedback loop from performance (customer value creation)

to governance structure (contract) to profits to upgrading (profit reinvestment) and back to performance.

Figure 1: Static Perspective on Value Chain Analysis

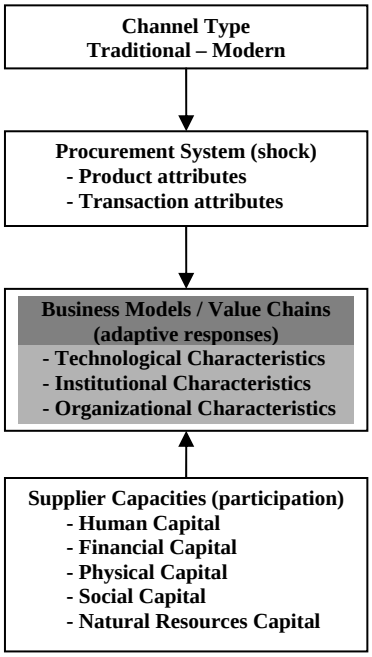
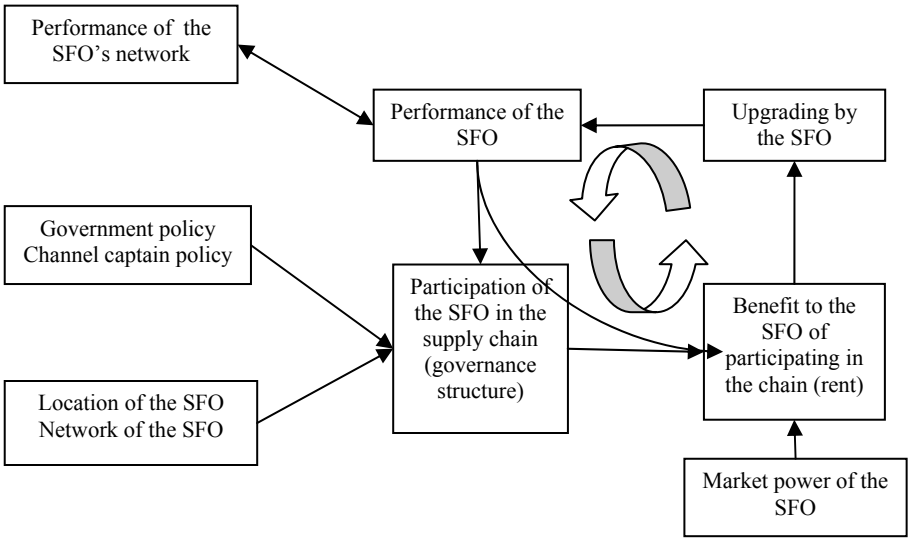


Figure 2: Dynamic Perspective on Value Chain Analysis



(Note: SFO=Smallholder Farmer Organization)

Case-studies that look at contextual variables add rich detail to the analysis. However, for internal validation of the findings, multiple sources of evidence are required (triangulation of data). The analysis presented in this report is based on secondary information, field observations and (mostly) on key informant interviews. The following people participated in semi-structured interviews using partially overlapping question sets:

- Roberta Burgess, ARC
- Elton Jefthas, ASNAPP
- Prester Acrons, member Ericaville Farming Trust
- Maria Slinger, member Ericaville Farming Trust
- Jenny Adams, member Ericaville Farming Trust
- Callen Koopman, member Ericaville Farming Trust
- Sidney LeFleur, member Ericavill Farmer Trust
- Johan Kritzinger, Director Honeybush Natural Products Ltd
- Evelyn Thysse, Haarlem Honebusch Association
- Martin Wildeman, Haarlem community leader
- Merwyn Chamrel, Langkloof Cooperative
- Rene Wolfaardt, Marketing and Sales Manager, Cape Natural Tea Products
- Astrid Moehrke, Secretary South African Honeybush Tea Association
- Marius Van Dyk, Cape Honeybush Tea

3. Background and Context

Honeybush

Honeybush (*Cyclopia* spp) is a perennial woody fynbos shrub, unique to South Africa, whose leaves and stems are used to make an herbal, caffeine-free tea with acclaimed medicinal properties[94]. Claims of these medicinal properties are gaining credibility from emerging scientific research[95]. Honeybush mainly grows in the coastal districts of the Western and Eastern Cape Provinces, from Darling to Port Elizabeth.

There are about two dozen different species of Cyclopia with great variety in terms of their disease resistance, habitat preference, productivity and taste characteristics. There are four main commercial species: C. subternata ("vleitee", valley tea), C. intermedia ("bergtee", mountain tea), C. maculata ("Genadendaltee", also a valley tea) and C. genistoides ("kustee", coastal tea). The first two have historically dominated in commercial usage, while the last two varieties have only recently increased in importance with the emergence of plantation production.

These varieties differ strongly in nature. Depending on climatic conditions, C. subternata can be harvest twice a year but does not have the taste/color qualities that are desired most by the market. C. intermedia, the most common wild variety, can be harvested only once per year

[94] This section is mainly based on a honeybush crop profile compiled by ASNAPP (www.asnapp.org), on www.rooibos.ch/honeybush.html, on Dharmananda (2004) and on key informant interviews.
[95] This scientific research started in the early 1990s with the pioneering work of Dr. de Lange at the Botanical Gardens in Kirstenbosch near Cape Town. His research generated much interest and initiated the development of the honeybush sub-sector.

starting from the second year in plantations (depending on production practices) and only once per three years in the wild. C. maculata has properties akin to those of C. subternata while C. genistoides has properties akin to those of C. intermedia. The tea is picked by cutting off the young growth (leaved and flowered stems) of the shrub. Given the new and still experimental nature of cultivated production, yields on honeybush plantations vary greatly from 2MT to 10MT of wet material per ha per year.

Historically honeybush has been harvested in the wild. However, as the honeybush market grows and formalizes, wild harvesting becomes increasingly inefficient from an economical point of view and unsustainable from an environmental point of view. A shift from wild harvesting to cultivated production was the logical next step. In 2001, amongst the first to engage in such honeybush cultivation were the Haarlem and Ericaville farming communities described in this case-study.

The Haarlem Farming Community

Haarlem is a community of subsistence farmers located in the midst of large-scale commercial fruit (apple) growers in the Langkloof valley near the Western Cape – Eastern Cape border[96]. The community consists of approximately 3,500 mostly colored people in 900 households with great diversity in social status. Its community land, derived from land managed by the Lutheran church in the 1800s, was up to the 1970s mainly used for small-scale fruit growing. These smallholder growers sold their produce to the large-scale farmers who had access to domestic and export markets. A combination of trade embargoes against a South Africa under apartheid and the global oil crisis of the 1970s led to a shift from the export market to the domestic market. The latter could not absorb all production and it were especially the small-scale farmers who lost their markets.

By the 1990s, the prolonged crisis led to an uprooting of fruit trees by most of Haarlem's fruit growers and a shift to other cash crops or livestock[97]. In fact, some of Haarlem's citizens became fruit traders and started to buy fruit from large-scale farmers (who only focus on large-volume markets) for sale in niche-markets such as the informal markets outside the Fresh Produce market in Port Elizabeth. Others shifted to odd jobs such as making burglar bars or spray painting cars or more skilled professions such furniture makers, carpenters, plumbers or electricians[98]. However, the most prevalent sources of income for households in Haarlem are work as laborers on the near-by commercial farms (at R600-800/month) and social welfare payments (e.g., pensions of R750/month). Not withstanding these various work opportunities, unemployment in Haarlem became rampant (rates of up to 80%). It is thus not surprising that a large part of the younger working population (18-45 yrs old), especially if they are better educated, migrated out of the area altogether to find jobs in the cities.

[96] While the main focus of commercial farming in the Langkloof area is fruit production, other farming activities of importance are maize, onion, potato and ostrich.
[97] By 2005, only about 10 fruit growers were left in Haarlem. These are small-scale, mostly older growers (in their 70s and 80s) with about 100 fruit trees on 0.5ha around their homestead. Their net income from fruit growing is around R5,000/year, i.e., in the same order of magnitude as the annual salary of a farm worker in the area. Since the late 1990s, with export growing again, Haarlem's farmers have started to replant fruit trees.
[98] Mostly skill sets were acquired through short term (3-year) training programs at schools in the nearby town of Uniondale.

Wild harvesting of honeybush has traditionally been another important source of income for Haarlem's households. As natural stocks depleted over time however, the harvesters had to spend increasing amounts of time and money to reach honeybush in increasingly remote and higher-up regions in the mountains. In order to address the growing economical and ecological concerns, the Haarlem community started to shift away from wild harvest to cultivation, establishing the first honeybush plantation in 2001. The first planting of 10ha was followed by a second planting of 10ha in 2005. A shift in the market demand for different species led to a shift from the subternata to intermedia variety for 2005 plantings and replacement plantings (the Haarlem farmers are currently both species). Although the honeybush was planted on community land, Haarlem honeybush growers manage their plots (1ha each) as individuals.

The Ericaville Farming Trust

In 1996, the Ericaville Farming Trust (85 households of the Ericaville community) requested a land grant from the government to buy and develop a commercial community farm[99]. In part due to the fact that South Africa's post-apartheid government was still getting its new or restructured departments organized, it took about four years before the funding request was processed. In 2000, the grant money (R1.36 million) was made available and a 40ha farm was bought near the town of Plettenberg Bay, 35km from Ericaville (Western Cape). The Ericaville community members are on average well-educated (high school or higher; at least those who are part of the Trust) but while some have rewarding full-time jobs (e.g., hotel or bank employees) the Ericaville area is generally impoverished and unemployment rates hover around 50%. At this stage however, the commercial honeybush farm is intended as an additional, not a main source of income.

Inspired by the Haarlem group and at the advise of a specialist from the Department of Agriculture who evaluated their farm, the Ericaville Farming Trust started a 5ha honeybush plantation in 2002 with a first harvest 15 months later in 2003. By May 2005, the honeybush plantation had grown to 9ha. An additional 7ha are scheduled to be planted by the end of 2006. For the Ericaville Farming Trust members, who all belong to the Griqua community[100], the management of the honeybush plantation is a community responsibility with stronger social then economical undertows.

NGO Support: ASNAPP

Main initiative taker in the realization of the Haarlem and Ericaville honeybush plantations is ASNAPP South Africa. ASNAPP South Africa is one of five non-profit organizations in the ASNAPP project (Agribusiness in Sustainable Natural African Plant Products) which aims to "develop the natural products sector in Africa by promoting income-generating activities for rural entrepreneurs in such a way that it improves the livelihoods of rural communities" [101]. The

[99] In 1996, as part of a strategy of improving access to land for PDGs, the government made land grants available and qualified applicants could request grants for either housing or agricultural investment projects.

[100] The Griqua are a sub-group of South Africa's colored people, descendents from the Khoi-Khoi and European settlers.

[101] The other four are ASNAPP branches located in Zambia, Rwanda, Ghana and Senegal. More information on ASNAPP can be found at www.asnapp.org.

project was initiated with USAID funding at the Agricultural Research Council in 1999. In 2004, the project was restructured as an NGO. ASNAPP South Africa still derives most of its funding from USAID. Additional funding comes from the South African government.

ASNAPP's approach starts from a broad perspective of the supply chain and addresses a wide set of elements including technical advise, planting materials, quality control (in the field, at harvesting, during processing) and market development. In this context, ASNAPP brought in Cape Natural Tea Products (CNTP), a tea packaging company, as a founding member in the two projects[102]. CNTP provided the market access for the project while sourcing from poor farming communities both supported CNTP's corporate social responsibility strategy and its BBBEE score[103]. Two further partners in the project are two US organizations: Rutgers University (New Jersey) and (previously) the Herb Research Foundation (Colorado).

4. The Honeybush Supply Chain and Markets

Although consumed by households in South Africa since at least the 1700s, honeybush tea has been marketed and supply chains have emerged only since the 1960s for the local market and since the 1990s for the export market. As a consequence, the honeybush consumer market, while growing fast from a small base, is still underdeveloped and consumer awareness of the product is low.

A group of honeybush producers established the South African Honeybush Tea Association (SAHTA) in 1998. Today SAHPA is an industry-wide body representing all stakeholders in South Africa's honeybush sub-sector (nurseries, producers, processors, packaging companies). SAPHA's main objective is to promote Honeybush as a socially and environmentally responsible, healthy product in the domestic and the global market place. The association is currently in a start-up phase and working towards developing industry-wide standards for taste, color and quality. The emerging honeybush sub-sector anno 2005 is still in a "Wild West" stage with much variation and inconsistency in quality over suppliers and over time. This increases transaction costs for buyers in export markets and thus hampers the development of the sector.

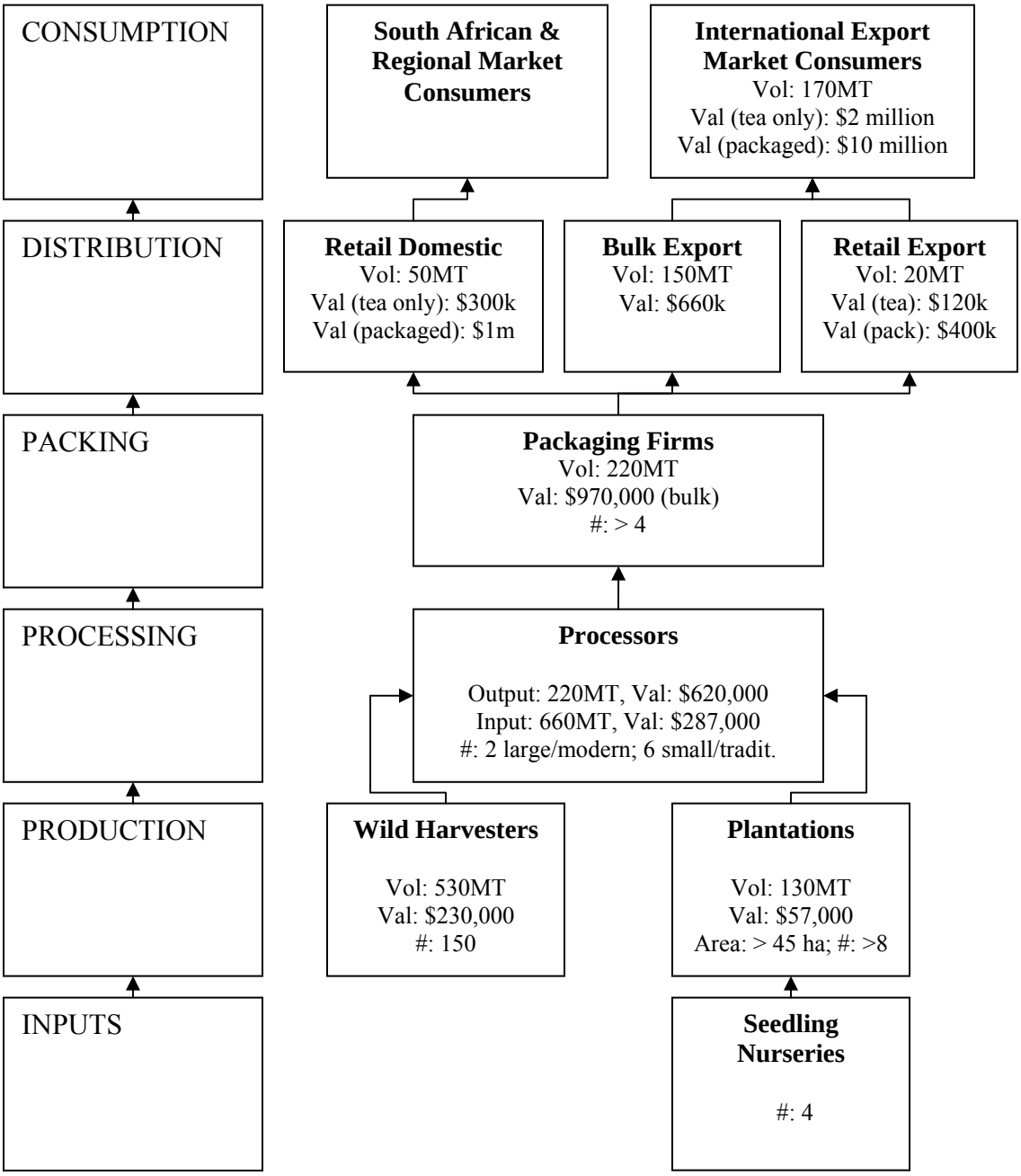
Figure 3 depicts the honeybush sub-sector anno 2004. Based on the assumptions used in figure 3, the total revenues at the farmer/harvester level are just under $300,000. This represents only 2-3% of the estimated $11 million paid for packaged honeybush tea by end-consumers in the domestic and export market. From key informants in the packaging industry we learned that the

[102] CNTP can be seen as the pioneer in the development of the modern honeybush industry. It was at their suggestion that ASNAPP started to explore the feasibility of honeybush cultivation. ASNAPP was assisting the Haarlem community with marketing wild harvested honeybush at first.

[103] The Broad-Based Black Economic Empowerment Act of 2003 established a legal framework to assist South Africa's socio-economic transformation from one characterized by "vast racial and gender inequalities in the distribution of, and access to opportunities, wealth, income, skills and employment" to one where historically disadvantaged South Africans are economically empowered through changes in ownership and management structures, skills development, facilitated market access and selective investment strategies. From the 2005 financial year agri-food firms are expected to report on BEE procurement expenditures and agricultural support service initiatives in their annual report. A Code of Good Practices framework released by the Ministry of Trade and Industry provides for annual third-party audits that will attach a BBBEE score to the firms' performance. This score will allow for a classification of firms from a limited to an excellent contributor to BBBEE (four classifications).

numbers in figure 3 will change dramatically for 2005, mainly because of a 300-400% jump in the size of honeybush orders from Germany. Whether this is merely a temporary spike in exports or an indication that 2005 will be the breakthrough year for honeybush in the EU market, is unclear.

Figure 3: the Honeybush Sub-Sector in 2004



Source: Numbers are estimations based on interviews with key informants.

Notes: Exchange rate US$1=R5.67; Assumptions: (1) raw material R2.5/kg, processed bulk R16/kg at processor level, R25/kg at packaging firm level; (2) Domestic/regional retail value: a 40 bag/100gr retail package is valued at $2/pack; assuming tea makes up 30% of the cost of the final product, the domestic retail value of the tea is $6/kg. (3) Export market retail value: a 20 bag/50gr retail package is valued at $3/pack; under the assumption tea makes up 20% of the cost of the final product, the retail value of the tea is $12/kg.

Input supply

The critical input in the modern honeybush supply chain, i.e., one based on cultivation rather than wild harvest, is the seedling[104]. Given the newness of honeybush cultivation, seedling nurseries are still very rare. The main producer, Evelyn Thysse ("Aunt Evelyn"), is a member of the Haarlem community. Mrs. Thysse's operation was set up in 2000 at the initiative and with the technical support of ASNAPP. The original objective was to provide the seedlings for the Haarlem project but with the emergence of other honeybush plantations, the demand for and production of seedlings increased exponentially from 1,700 in 2001 to 200,000 in 2005. Mrs. Thysse's nursery mainly produces the C. intermedia variety. All seedlings production is organic. Seedlings are transplanted in the field normally when they are nine months old.

Production

Honeybush production is derived from wild harvest (traditionally) and cultivation (since 2000). In the Langkloof area, wild picking of honeybush for commercial purposes is done year-round by entrepreneurs who scout the region for good honeybush growing areas. Once the latter are found, the entrepreneur asks the farmer who owns the land for permission to harvest honeybush on his/her farm. If approved in writing by the farmer, the entrepreneur applies for a permit from the Department of Agriculture. The application indicates where the honeybush will be harvested and allows government officials to judge the picking in the context of nature conservation. If the government issues the permit, the entrepreneur hires three or four people and takes them in a pick-up to the selected farm and field. The honeybush is harvested, bunched and transported to the processor. Increasingly, farmers whose land the honeybush is picked from will ask for a share of the selling price (up to 40%). This may be a reflection of either increasing market demand for honeybush and/or an increase in the scarcity of honeybush growing in the wild (reduction in supply).

Demand for honeybush is growing at more than 30% per year on average (from 30MT in 1997 to 220MT in 2004)[105]. With demand growing this fast, wild harvesting increasingly suffered from three drawbacks. First, the intensified wild harvest implied that harvesters had to invest more resources into getting to honeybush plants that were increasingly difficult to reach. Second, depletion of the natural stock became an increasingly important environmental problem, creating

[104] Only three other commercial seedling producers were mentioned in the course of the fieldwork: Cape Honeybush Tea in Mossel Bay, ASNAPP in Stellenbosh and a farmer near Uniondale.

[105] Once importers in industrial markets (EU, Japan, US) decide to promote honeybush amongst consumers, the market can grow in leaps. For example, the two leading honeybush packaging plants received orders for 80MT to 100MT from German buyers in 2005, i.e., nearly triple the previous year's volume.

an incentive for the government to reduce the amount of wild harvesting allowed[106]. Third, as the honeybush sector industrialized and upgraded, there was a growing need for a larger and more reliable supply of more uniform raw material for the processing industry. This need was not sufficiently addressed by wild harvesting.

With wild harvest not being a long term possibility in an industrializing sub-sector, cultivated production of honeybush was introduced around 2000[107]. As the industry grows plantation production will replace wild harvesting. One of the two leading processors (Cape Honeybush Tea) already relies 100% on cultivated production. In the Western Cape there are at least eight honeybush plantations. In addition to the ASNAPP initiatives in Haarlem and Ericaville, there are two commercial producers in the Langkloof area and four commercial producers in the Mossel Bay area. Furthermore, one of the Langkloof commercial producers recently supported the establishment of a new plantation by selling 22ha of his land to a group of 10 women who have established a trust (the first 5ha were planted in 2005).

Cultivated production is well-suited for resource-poor farmers with good access to financial capital (through government grants). Although the initial investment is relatively high[108], operational costs are low (no or limited irrigation, no spraying, no pruning, technologically less complicated) and so working capital requirements are low as well. Furthermore, honeybush is a sturdy plant and one of the few crops that can be grown in relatively poor soils. Honeybush harvesting depends on the variety. *C. subternata* (a reseeder) can be harvested twice a year from the first year for at least seven years and comes into full production in year three (6-12MT/ha). *C. intermedia* (a resprouter) can be harvested from year two or three and can then be harvested, with sufficient rain or irrigation, once every year (2-4MT/ha).

Variety has a strong impact on yield. For example, the Ericaville Farming Trust focused mostly on the more productive C. subternata variety. The latter produces a tea with a taste that is less liked in the market. Although its (sole) buyer indicated that they will buy all the Ericaville honeybush at the moment, this variety choice may present a less marketable product in the future. Both the Ericaville and Haarlem honeybush growers have yields in the 2.5-4MT/ha range. Other honeybush producers have indicated that they obtained yields in the 9-12MT/ha range. This is due to variations in variety, agro-ecological climate, soils, and production practices.

Most of the plantation production is organic. Producers opted for organic production (using no inorganic fertilizers or chemicals) mainly because it supports the healthy image of Honeybush tea, especially in exports markets where the tea is marketed to health conscious consumers. Most of the organic production is not certified organic, in part because the costs of obtaining certification are not offset by higher prices paid by processors[109]. This is for example the case for the Haarlem and Ericaville growers. In the Langkloof area, there are two individual farmers who

[106] However, this is a less important reason at the present. Honeybush is not under the same heavy wild harvesting pressure as is rooibos, South Africa's leading herbal tea.
[107] This mirrors a similar evolution in the supply of rooibos for which similar changes took place in the 1960s. Rooibos is an herbal tea, which like honeybush is caffeine-free, anti-oxidant rich and indigenous to South Africa.
[108] According to ASNAPP, it costs R16,800 to develop 1 ha of honeybush (R10,300 for land preparation starting from bush land, R6,500 for seedlings), i.e., similar to twice a farm worker's annual salary.
[109] The Ericaville farmers group indicated that the annual certification and auditing costs would amount to approximately $2,000 which at this point represent about 20% of their honeybush sales.

are certified organic growers of honeybush. They are certified by Germany-based Ecocert which inspects both the wild and cultivated honeybush at the farms (one announced audit, possibly one unannounced surprise inspection)[110]. Another producer, Cape Honeybush Tea, obtained organic certification for its plantation from SGS in 2001[111]. Certified organic honeybush tea is still small, making up approximately 5-10% of the total output.

Depending on variety and climatic conditions, the tea is harvested once or twice per year. After harvesting the tea is bunched, weighed and loaded on a truck for shipment to the processor.

Processing

Honeybush processing consists of six steps: cutting, oxidation, drying, sieving, sterilization and packaging. First, the wet honeybush stems are cut into small pieces[112]. This facilitates the next step of enzymatic oxidation ("fermentation"). During oxidation (3 days for conventional processing), heat from heaping under canvas sheet or from ovens stimulates a reaction that changes the chemical structure of the tea, giving it its characteristic taste and sweet honey-like aroma. After oxidation the tea is dried for two days and then sifted and graded into various size/quality categories. The final product is shipped in bulk in 20kg woven plastic bags to the packaging companies (who are also responsible for the sterilization).

There are eight honeybush processors in South Africa. While six of these are small traditional processors, two of them are larger modern processors which emerged in the second half of the 1990s[113]. These two are Honeybush Natural Products (HNP) established in 1996 in Langkloof (the main honeybush production area) and Cape Honeybush Teas (CHT) established in 1998 in the Mossel Bay area[114]. Together these two companies present roughly 66% the processed honeybush market.

The two companies use similar processing technologies (albeit that CHT is more automated) which for both are HACCP and organic certified[115]. The main differences between the two companies lay in their source of wet tea and their degree of vertical integration. HNP mostly relies on wild harvesting while CHT relies 100% on plantation production[116]. Whereas HNP is partially integrated backward into production only, CHT is fully integrated along the supply

[110] Ecocert is specialized in organic certification. More information can be found at www.ecocert.de.
[111] SGS, a UK based certification company, operates in various industry sectors, not just agriculture. More information on SGS can be found at www.sgs.co.uk.
[112] The honeybush processing industry is still so small that there exist no suppliers of specialized equipment. HNP for example had to developed its own processing equipment by modifying equipment used in other industries (e.g., the tobacco industry).
[113] Traditional small processors use sun-drying rather than machine drying which limits their capacity to around 3MT per month. Some packaging firms argued that the quality of traditionally processed honeybush is better than that of honeybush processed using modern equipment.
[114] More information on CHT can be found at www.capehoneybushtea.co.za.
[115] Certified organic and conventional processing take place but both processes are strictly separated. Most of the production is not certified organic and so most of the processing is conventional. More detail on HACCP (Hazard Analysis and Critical Control Points) can be found at www.cfsan.fda.gov/~lrd/haccp.html.
[116] Only when stressed for supplies would CHT buy wild harvested tea. This may be the case for 2005 with orders jumping 300-400%. Wild harvesting is thus important for supply flexibility in this early stage of the honeybush sector's development.

chain from nursery to finished, shelf-ready product. Because the Haarlem and Ericaville farmer groups supply all of their honeybush to HNP we will discuss this company in greater detail.

With supplies of 350MT of raw material in 2004, HNP is the largest processor of Honeybush in South Africa (and thus in the world)[117]. Both as a producer and a processor, HNP deals with wild harvested and cultivated honeybush.

Ninety percent of HNP's supplies (around 300MT in 2004) come from wild harvest and 10% comes from cultivation. Of the wild harvest supplies, about 75% comes from about half a dozen of specialized entrepreneurs and about 25% is derived from individuals who supply smaller quantities on an ad hoc basis. Both types of wild harvest supplies are not part of any organized supply plan but rather represent ad hoc deliveries on a spot market basis (i.e., the supplier arrives unannounced and receives cash-on-delivery payment). HNP checks the picking permit of the supplier and contacts the farmer from whose field the honeybush was picked to assure all was done legally. The cultivated production comes from the Haarlem and Ericaville communities, Kritzinger's own farm and one other commercial farmer.

HNP has a processing capacity of 50MT of wet material per month but only processes 30MT per month on average (thus running at 60% of capacity). Out of 1MT of wet material, HNP produces 500kg of tea, 300kg of which is of a marketable grade[118]. 2004's production was around 110MT of processed tea. Processing takes place in batches of approximately 1.5MT and for each batch a sample is send off for lab-analysis. One batch usually comes from one source. All traceability tracking is done at the level of a batch.

While most of the tea produced is conventional fully fermented ("black") tea, HNP also produces organic honeybush (15% of output) as well as small batches of green honeybush (<5% of output). In compliance with the requirements of Ecocert, HNP processes organic tea separately from conventional tea. Although bulk organic honeybush tea receives a R2/kg (10%) premium at the processor and packaging level, demand is still low at this point and the processor has no demand for organic wet honeybush beyond the production from his own farm. As a consequence, no premium is paid for organic wet honeybush to other suppliers. Green tea processing (i.e., the natural fermentation process is halted) is still experimental and more costly than regular processing[119]. The green and organic teas are mainly produced to address demand in export markets, most notably Germany which is establishing itself as the tea and coffee wholesaler for the European market.

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[117] HNP was established and is managed by Johan Kritizinger. Mr. Kritzinger is mainly a EurepGap-certified large-scale commercial apple producer/exporter who in an income diversification strategy became both a producer and processor of honeybush. HNP has three shareholders: Rooibos Ltd (45%), Grassroots (45%), Mr. Kritzinger (10%). Rooibos obtained its share in HNP by buying out one of the original investors, Cape Natural Tea Products (CNTP). CNTP sold its stake as its minority share left it outvoted at key decisions. For a period of 2 years, existing agreements implied (1) continued supply from HNP to CNTP and (2) CNTP not setting up its own tea processing facility. Rooibos, Grassroots and CNTP are tea packaging companies.

[118] Of the 500kg of tea, 50kg is too fine (dust) and 150kg is too coarse. The 300kg which is marketable is further sorted in a fine cut (for tea bags) and a coarse cut (for loose leaf, orthodox tea). Getting a higher marketable tea / raw material ratio is one of the main challenges in honeybush processing anno 2005.

[119] CHT has also developed patented processes for "red" and "green" honeybush teas.

HNT sells roughly 90% of its honeybush to Rooibos Ltd's processing plant in Clanwilliam (600km to the North-West in the Western Cape Province) and 10% to CNTP's facility near Cape Town. Grassroots gets its honeybush tea trough Rooibos Ltd. as the two companies are in a partnership.

Packaging

The packaging companies are the major players in the honeybush supply chain. Packaging plants pasteurize the tea[120]. They also blend tea from various sources and varieties in order to obtain taste that is liked in the market and that is more stable over time[121]. A third value-chain activity performed by the packaging plants is storage[122]. These firms package a certain portion in retail shelf-ready packaging while the remainder is send bulk to both local and export markets. The leading Honeybush packaging companies are Rooibos Ltd, Cape Natural Tea Products and Cape Honeybush Teas. Each of these companies meets HACCP, organic and export standards[123].

Rooibos Ltd, with a 90% share of the domestic wholesale market for local herbal teas (rooibos[124], honeybush) and a 50-60% share of the world market for these products, is the giant of South Africa's herbal tea industry. CNTP is far smaller than Rooibos Ltd, but is the largest honeybush packaging company in South Africa. CHT is the most recently established and is more specialized in honeybush than the other two companies.

Distribution

About 25% of production is marketed in the domestic market where honeybush is widely available in the supermarkets under a range of consumer brands. These include packaging firm brands (Freshpack, Vital, 5 Roses) as well as private label brands (e.g., SPAR, Woolworths).

With regard to the export market, 90% of honeybush is exported bulk and then packaged for retail in export markets. A notable retail-shelf ready product for the export market is CNTP's Intaba brand which is doing well in the Canadian market. The main export markets for bulk honeybush are Germany, the UK and Poland. Markets which are buying small volumes at the moment but with great export potential include the United States and Japan.

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[120] The presence of economies of scales associated with the sterilization technology is the reason why the bigger packaging companies engage in this activity and not the smaller processors. E.g., HNP's entire annual output is processed in just one week at Rooibos Ltd. As processed volumes increase, processors may upgrade to include sterilization in their value-adding and facilitate direct exports.

[121] For example they blend C. intermedia (for the taste and the bouquet) and C. subternata (for the color) in a 70%/30% combination.

[122] Processed honeybush tea can be stored for up to 3 years.

[123] All export consignments must be checked by the Perishable Products Export Control Board (PPECB) to make sure they comply with the product standards laid down in South African law. More information can be found at www.ppecb.com.

[124] Unlike honeybush, rooibos has been marketed for a longer time (since the early twentieth century) and consequentially, the rooibos export market is roughly 25 times the honeybush export market (5,000MT vs. 200MT in 2001 respectively). Whereas the global market for rooibos is already well established, honeybush exports are just emerging.

The biggest challenge in export markets is that consumers are unfamiliar with the product. For example, Honest Tea launched Haarlem Honeybush as a socially responsible product to US consumers in 2002 (Walker 2005). Although the product was well received by food critics (winning for example a "Best New Product" award at the 2002 Fancy Food Show in New York City), it was soon withdrawn from the market due to lack of demand. Honest Tea concluded later that the US consumer was too unaware of what exactly honeybush is to make it the "hero ingredient" in a tea[125].

Nevertheless, an increasing number of international tea brands are including honeybush herbal teas in their product line. In the US market for example, honeybush is currently sold by Celestial Seasonings in a peach-apricot-honeybush blend, and by Tazo, Numi and Stash in pure form. Promotion of honeybush teas by leading tea companies in key export markets appears to be the most critical requirement for the further development of the honeybush industry. The 300-400% jump in order size from Germany in 2005 may indicate that one or more leading firms in Europe's tea industry are planning to push honeybush.

5. Farmer Capacities and the Emerging Business Model

We distinguish three key components to the business model used by the farmers to link up with the supermarket: organization, governance, and technology. This section will discuss each of these components in detail, explaining the various choices that were made and the problems that were encountered.

5.1 Organization

Organization of the People

The *Ericaville* farmers are organized in the Ericaville Farming Trust (EFT) which was established in 1999. Each of Ericaville's 85 households received an equal share in EFT. The Ericaville farmers belong to the Griqua sub-group of the population which influences the way the farm is managed. The Griqua have their own church, the Griqua Church, which is protestant-Christian and has a strong focus on maintaining the Griqua identity. Social bonds are tight and decisions beyond the household are usually taken as a group. This structure has extended to the management decisions made on EFT's farm. Decisions on planting, weeding, harvesting or building a pack shed are all made as a group. On the positive side, the familiarity of the members with the social group decision system has allowed EFT to operate smoothly with little or no internal conflict. On the negative side, group decision making is not common in firms because of its negative effect on managerial decisiveness, strategic direction and individual accountability. Decisions on when to get a particular job done is at times guided more by when a sufficient number of EFT members can make themselves available than by what is best for the farm's profitability. The group structure negatively affects the incentive structure: individuals are not rewarded for extra effort, nor are they punished for slacking.

[125] Email communication with Seth Goldman, co-founder of Honest Tea. More information on this organic tea company and the Haarlem Honeybush product can be found at www.honesttea.com.

The organizational structure of the *Haarlem* farmers is more complex. An Agricultural Forum was established under which five product-specific associations were set up (flowers, cattle, fruit, vegetables, honeybush)[126]. The forum is led by two representatives from each association and the community leader. Farmers in Haarlem can be a member of any group and multiple group membership is common. Multiple group membership increases the chances of the farmer gaining access to the communal land. By far the most active is the honeybush association (Haarlem Heuningbos Tee Assosiasie) which is currently in the process of becoming a trust. Each farmer is responsible for his or her specific 1ha of honeybush making the reward the farmer reaps from the land directly related to his or her effort.

Organization of the Land

The land used by the *Ericaville* farmers consists of a 40ha commercial farm which was bought in 2000 with a grant from the government. The farm is owned by EFT and they can use the land as they see fit. Their restrictions lay on the funding-side as use of the grant monies for the development of the farm has to follow government guidelines.

As with the organization of the people, a more complicated land management structure applies to the *Haarlem* farmers. Currently, the Haarlem honeybush growers are using land leased long term from the local municipality. It is expected that Haarlem's communal land will soon become available to the community. The 600ha of communal land in Haarlem was church owned land that was sold to the government when the church left in the 1960s[127]. In 1987, Haarlem became one of 12 rural areas in the Western Cape with a similar historical background under the Rural Area Act (Act No. 9). Officially this land was leased back to the community for 99 years, but the Haarlem farmers needed permission from the government before they could use the land. A repeal of Act No. 9 is envisioned in the Transformation of Certain Rural Areas Act of 1999. This Act set forth and initiated a process of transferring ownership of the land back to the community. The process is time-consuming and in the case of Haarlem, the Department of Land affairs finished the proscribed audit of the land only by July 2005. The purpose of the survey/audit is to indicate which land is suitable for which type of crop. Once this allocation plan is finished, the land will be transferred to the Agricultural Forum which represents the Haarlem community. At that point it will also become apparent how much land is available for honeybush production. It is expected that about 50ha of communal land will be allocated to honeybush cultivation. With more land rented in, the total scale of operations could grow to 200ha.

Organization of the Value Chain

Within the honeybush value chain, the two farmer communities almost exclusively focus on the production of wet honeybush tea from procured seedlings. The only part of the value chain

[126] The Agricultural Forum and its five associations were set up in the context of ASNAPP's honeybush project to create an overall structure in which political favoritism could be reduced. Political rivalry within the community has historically caused political issues to overshadow economic issues and hence undermine the profitability of new agribusinesses. ASNAPP was one of few donors to have remained operative in the politicized area.

[127] The Haarlem community has access to three types of land: (1) the 600ha of community land; (2) a 300ha commercial farm with 70ha under fruits trees valued at R4.5 million, whose managed will revert back to the community; (3) 260ha of land around the farmers' homesteads and owned by the individual households.

beyond production that is captured by the farmers is on the input side, namely the honeybush nursery in Haarlem.

Ericaville Farming Trust

The Ericaville farmers have two product lines (honeybush, vegetables) and plan to engage in a third line (proteas)[128]. Honeybush represents 60% of revenues.

With regard to honeybush, the EFT farmers get their seedlings from the Haarlem nursery. The honeybush is harvested once or twice a year, bound in bunches, weighed and loaded on a truck. The next day the honeybush is transported and sold to HNP in the Langkloof region (160km, 2hrs by truck from the farm). Farmers are responsible for the organization and the cost of transportation from farm to factory. The processor pays the farmers in their bank account one or two weeks after delivery. Price paid per kg does not fluctuate much over time and they do not differ across varieties (price was R2.50/kg in May 2005). An initial strong dependence on ASNAPP assistance in the marketing of their wet tea has diminished but ASNAPP is currently still responsible for most of its marketing activities.

Honeybush plantings have grown from 5ha to 9ha and a further expansion to 16ha is planned for 2006. The objective is to get 20ha of the farm under honeybush production. The main factor limiting the pace of expansion is the limited cash flows that do not (yet) allow them to hire salaried personnel. The costs of developing the farm (clearing the land, putting up fences, planting, and so on) over stepwise expansions are (or will be) funded from the land grant of which the EFT had used approximately 80% by May 2005. These grant funds can only be used for the improvements of the farm, not for paying salaries. This has placed EFT in somewhat of a catch-22 position: they need to hire a full-time manager to get production and revenues up on the one hand, but they need higher revenues to hire a full-time manager on the other hand. The two most logical solutions are to grow slowly or to attract venture investment capital. It appears EFT has for the moment opted for the former approach.

Net profits from honeybush sales are not paid out to members but rather set aside in an account to provide funding for future expansions or working capital needs. Once it has reached its goal of 20ha under honeybush, EFT plans to engage in the marketing of bulk tea. With 20ha of honeybush, EFT believes it will be capable to produce the minimum volume required for direct shipping[129]. EFT will pay HNT to process their tea (as opposed to selling it to the processor) and then market the tea with the assistance of ASNAPP and a honeybush packaging company to an already identified buyer in the Netherlands

[128] Vegetables (sweet potato, cabbage) have been grown by EFT since 2000 and are currently sold under contract to a nearby tourist lodge. The main reason for vegetable and protea production is to generate additional cash inflow for small operational expenses while the honeybush plantation is expanded. The additional income is used for paying skilled workers who make improvements to the farm (e.g., bricklayers). The vegetable production may be expanded in the near future as a commercial farmer has requested them to grow onions and garlic under an outgrower contract.

[129] A buyer in the Netherlands indicated a willingness to buy honeybush tea and set its minimum supply volume at 30MT. EFT expects to produce 30MT of processed tea from roughly 80MT of wet tea. This implies a yield of 4MT/ha which is realistic for the C. subternata variety EFT has planted.

Haarlem farmers

The *Haarlem honeybush farmers* have organized their part of the value chain in much the same way as the Ericaville farmers except that they operate as individuals. Each farmer is responsible for all of the production, harvesting and marketing activities for his or her plot. It is envisioned that once a cooperative structure is established for the Honeybush growers, that marketing will be done as a group (while production remains an individual responsibility). This group marketing will reduce transaction costs for both the farmers and the processors who buy from them.

The *Haarlem honeybush nursery* was set up from the start as a separate business for three reasons. First, seedling production is technically more challenging than honeybush production and so deserved to be a specialized business unit on its own. Second, there was insufficient supply of seedlings in the market to get the Haarlem and Ericaville projects started. Third, with the honeybush sector seemingly at the brink of taking off, honeybush cultivation appeared likely to increase fast and thus create a fast-growing market for seedlings.

ASNAPP was instrumental in developing a business plan for the nursery, in providing technical assistance and in providing the initial market (as ASNAPP obtained funding and paid the nursery for the first seedlings planted by the Haarlem and Ericaville farmers). One of the Haarlem farmers, Evelyn Thysse, volunteered for the opportunity when ASNAPP asked the farmers who wanted to start up and manage a honeybush seedling nursery. Mrs. Thysse has obtained a government permit to collect seeds and grow the seedlings. The seeds are obtained free of charge (just puts in her own labor) from her own honeybush field and from other growers. She also has a flora seller certificate of registration.

The Haarlem honeybush nursery sells its seedlings not only to the Haarlem and Ericaville honeybush growers but also to various other plantations. Using external funding, ASNAPP pays the nursery for the seedlings that are provided for free to the Haarlem and Ericaville honeybush growers. The latter have to pay themselves for replacement seedlings. Buyers who do not belong to either of the two farmer groups have to pay for the seedlings.

5.2 Governance

Two sets of rules govern the business models of the two farmer groups, namely those dealing with people and those dealing with products.

Rules Governing People

There are no salaried employees on the *EFT farm*. EFT expects its members to provide free labor in the evenings, weekends or when they take a day off. The free labor is not part of a sweat equity contribution which is currently associated with land grants. It was a decision made internally by EFT. Those who are on a pension have more time available and hence provide more labor time. In order to avoid free rider problems, EFT keeps track of how much labor each member puts in. Members who cannot make their contribution to the work are expected to pay for the salary of someone to take their place.

In stark contrast to the Ericaville farmers, the *Haarlem honeybush farmers* manage their 1ha plots individually from planting to weeding to harvesting to marketing. Rules come into play mostly with regard to selecting the individuals who will be given a hectare of communal land. For the first 10ha in 2000, farmers were selected based on a lottery amongst all those who showed an eagerness to participate and who had distinguished themselves in some other agribusiness activity. Eight households benefited from the first 10ha distributed (as two husband-wife couples received 1 ha per spouse). Seedlings and inputs were given to the selected farmers with the funding obtained with ASNAPP's assistance.

For the new plantings (another 10ha in 2005, and 20ha in 2006), farmers will be selected from a pool of potential candidates based on need (income, household size) and past performance history. Candidates for selection are only those in the Haarlem community who are a member of the honeybush association. There is no barrier to entry into the association, but staying a member requires eager participation in the various activities (meetings, workshops, and training) during the period when they are waiting to be allocated more community land. The selection criteria are first discussed within the group before they are implemented.

The pool of potential candidates has also increased. In May 2005, the honeybush association had about 35 members of which 15-20 would qualify to get a ha of land. Only 10 candidates were initially picked (based on interviews held), Because there were only seedlings available for 3ha, only 3ha were (partially) planted. Various other institutional changes are planned for later in 2005. First, those who had a successful interview got a 1ha piece of land will now be asked to sign a contract with the association. The contract will refer to good agricultural practices (including organic production practices) and good management practices. An independent third party organization will monitor contract compliance by farmers. In case farmers fail to comply and do not heed verbal or written warnings, their land will be taken away and given to the next selected candidate for the land. Second, although the land is still provided free of charge, farmers will now have to pay for seedlings and other inputs. The inputs are provided under credit which is repaid by deducting a percentage from revenues (e.g., R0.30 out of each R2.50 paid per kg by the processor). The money will flow back into a revolving fund. This interest-free credit mechanism will be operationalized once the farmers are organized in a cooperative which markets the honeybush for the group as a whole.

Rules Governing Products

The two farmer groups currently sell the wet honeybush under loose contractual arrangements. The arrangement gives an indication of the volumes, the payment mechanism and the price (which is fairly constant) as well as some basic product quality standards. Although these specifications are written out, there is no formal written contract. Formal written contracts are preferred by the processor because it would facilitate his planning (regarding processing and payments). However, suppliers, mostly wild harvesters, have not shown an interest in them. The processor indicated that plantation producers such as the Haarlem and Ericaville honeybush growers have a strong advantage over wild harvester in that the latter are always moving around and are difficult to reach. The processor has always bought all the volume of honeybush tea the two farmer groups could supply, as long as farmers communicate about a week in advance how much they plan to supply. In fact, HNP had already agreed to buy the production of the two

farmer groups before they started to plant honeybush. Standards and their monitoring become stricter as the product moves further down the supply chain and becomes more refined[130].

Formal product standards have not been developed for honeybush specifically. Contracts between farmer and processor only list a few product specifications. These include for example that (1) plants must be pest-free, (2) leaves must have certain color characteristics and be fresh, (3) no foreign plants can be included, (4) bunches have to be free of dust and soil, and (5) stems should meet certain thickness and length parameters. In practice, these various specifications are easily met and both farmers and processors indicated that rejections due to not meeting product standards have never occurred. The processed tea has to comply with national food safety standards and samples of each processed batch of wet tea are send of to PPCEB for pesticide residue and microbiological count analysis. If problems arise, traceability systems will allow identification of the specific source of wet tea and the farmer who supplied it. Given that most of the production is organic and that the tea is processed, food safety standards are easily met as well.

Organic standards also apply. The farmers produce honeybush following the guidelines for organic farming as set out by the leading organic certification organizations. Once volumes are sufficiently high and market either pay a premium or start demanding organic production, the two farmer groups will likely apply for organic certification.

A last standard applying to the honeybush growers studied here is the Fair Trade standard. The Haarlem and Ericaville farmer groups represent previously disadvantaged groups and thus honeybush sold by these two groups will likely meet Fair Trade specifications. The two farmer groups have been looking at benefiting from Fair Trade opportunities by selling their story with the tea. The Haarlem farmers were involved in the Honest Tea product launch (see supra). The Ericaville farmers have been attending fair trade meetings and plan to get into fair trade labeling once they are able to market their tea more directly.

5.3 Technology

Agricultural Practices

The cultivation of honeybush is still in an experimental stage and the Haarlem and Ericaville honeybush growers are currently going through a trial and error phase. Although the growing of honeybush is relatively uncomplicated and requires few inputs, production practices and variety selection have a great impact on yield. Irrigation is not strictly required but in the absence of rains yields may drop with as much as a third. Lower yields and (to a lesser degree) loss of plants due to pests or diseases do occur in part because selected varieties are at times not well-suited for the environment in which they are planted. Beyond yield, the taste, color and aroma characteristics of the tea vary greatly across the different varieties. Much research remains to be done both with regard to developing improved hybrid seedlings and a good agricultural practices

[130] For example, at the packing company level product standards include the following specifications: maximum microbiological count levels, insect free, less than 1% foreign materials, maximum pesticide residue levels for the market where the tea will be shipped to, composition across various cut lengths, density, sensorical characteristics regarding taste and aroma, moisture content and appearance per reference samples.

standard (GAP). ARC-Infruitec- Nietvoorbij is the leading research institute regarding honeybush cultivation. Thanks to the involvement of ASNAPP, both farmer groups are well-linked to new knowledge generated by ARC-Infruitec-Nietvoorbij. This is an important linkage as it appears that current yields at the Haarlem and Ericaville plantations (2-4MT/ha) lag achievable yields (up to 12MT/ha).

The Haarlem and Ericaville farmer groups are organic producers of honeybush, albeit that they are not yet certified for reasons mentioned earlier. Organic production is the trend for agricultural production in the Langkloof area as many of the large fruit producers-exporters have shifted to this in addressing market demand in the EU market. The Dutch honeybush buyer identified by EFT also requested organic tea. The wide spread of organic production has made organic inputs (pesticides, fertilizer) readily available to the honeybush farmers. The farmers also use self-made pesticides (e.g., chili and garlic mixed in water) and integrated pest management techniques (e.g., beetles used as natural predators for aphids which damage the plants). Organic fertilizer costs less per kg but more kg per ha are required leading to similar fertilizer costs as in conventional production.

The two farmer groups have access to technical assistance from a wide variety of providers: ASNAPP, the Department of Agriculture, input suppliers, experienced commercial farmers, processors, packaging companies, and so on. This assistance is critical not only because honeybush cultivation is still new but also because some emerging farmers have little experience in farming before the honeybush plantations were initiated. This is especially the case for the Ericaville farmers who had only limited access to land before the end of Apartheid and hence were prone to make beginner's mistakes[131]. However, as the two farmer groups are building their capacities they are reducing their dependency on the various assistance providers.

Physical Capital

In terms of physical capital, the Ericaville honeybush growers are better equipped than those in Haarlem. The Haarlem farmers do not have any buildings specifically for honeybush and rely on hired tractors and pick-ups. EFT on the other hand has its own tractor and pick-up and has just finished the construction of a pack shed. This pack shed will house offices, toilets and space to store chemicals, equipment and harvested honeybush. EFT rents a 3MT truck from one of its members for transporting the harvested honeybush to the processor. However given the small-scale of operations, it appears that ownership of trucks and tractors is not yet warranted.

6. Income Effect

Honeybush production has the potential to increase the income of small-scale farmers, but only if the farmers can attain sufficiently high yields. The investment cost of establishing one ha of honeybush can be estimated at between R17,000 and R20,000 per ha[132]. Full yields are reached

[131] For example, the EFT bought land of poor farming quality (honeybush being one of the few items for which the land was suited) and initially ploughed it incorrectly.

[132] Based on Matoti (2003) and key informant interviews, investment costs per ha were estimated at R20,000/ha and include: R7,000 for 10,000 seedlings, R10,000 for clearing and preparing the land (includes tractor rental), R3,000

in years four to seven after which production will likely decline (research is still on-going). Under certain assumptions, net income in years four to seven is around R6,000/ha[133]. The key assumption is that a yield of 4MT/ha is attained. At this yield and assuming an eight-year cycle, the investment has an internal rate of return of around 10% (or the net present value is zero at 10%) at a R20,000/ha investment or around 14% at a R17,000/ha investment. At 3MT/ha, the IRR becomes negative. The initial harvests for the two farmers groups in this case-study were 3MT/ha for the Haarlem farmers and 3.7MT/ha for the Ericaville farmers[134]. Higher yields are partially related to higher investment costs, which revises the cash flow analysis completely.

If cycles can be extended and/or yields increase, the investment income of the farmers will increase starkly. Investment and operational costs remain more or less constant per ha as scale increases (no economies of scale) which implies smallholder producers can be competitive in honeybush production. Furthermore, demand side factors are favorable. First, prices for wet tea have gone up in nominal terms from R0.50/kg in 2000 to R2.50/kg in 2005. While currently prices for wild harvest and plantation honeybush are the same, it can be expected that cultivated honeybush will receive a premium as markets grow and processors want larger quantities of a more consistent quality (volume premiums). Second, markets for wet tea are readily available and growing fast. One leading processors indicate they can absorb far larger quantities than are supplied currently by the two farmer groups, as long as standards are met. However, when farmers want to upgrade into marketing processed tea for export markets, scale will become important as buyers have minimum order volumes (in the order of 30MT of processed tea or 90MT of wet tea or 20-25ha of honeybush).

Apart from the return on their investment, income is generated from the jobs that are created. These jobs include field clearing, planting, weeding and harvesting. The average annual labor expense is R4,000 per ha. This provides an income comparable to 40% of the annual farm workers' salary (at R800/month) which either goes to the farmer or someone hired by the farmer. This implies that 2.5ha of honeybush represents one full-time job or, with about 20ha currently under production over the two farmer groups, eight full-time job equivalents were (theoretically) created in the two projects.

In practice the employment created in honeybush cultivation in the two projects is less as farmers have not always managed their fields according to the developing good agricultural practices (GAP) or reached the assumed yield of 4MT/ha. For example, only half of Haarlem's ten original honeybush farmers took good care of their fields; others did not plant the whole 1ha, did not replace died plants (they had to pay for these), let the weeds overgrow, and so on. Furthermore, most farmers do not have a business mentality and regard grants as free money (a

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for planting the seedlings, and R110 for basal fertilizer. No mulching is assumed. ASNAPP estimates the investment cost for the Haarlem and Ericaville honeybush growers at R16,800/ha.

[133] The assumptions made were: an 8-year cycle from planting to uprooting (*C. subternata*); yields of 1MT/ha in year 2, 3MT/ha in years 3 and 8, 4MT in years 4-7; replacement seedlings at 5% in year 2 descending to 0% in years 7 and 8; weeding at R3,000/ha,year; harvesting at R125/MT (5 people harvest 4MT in 2 days at R50/day, person), transportation at R75/MT, a price of R2.5/kg. No inputs are used. Land is available at no cost. This ignores that in reality farmers make and apply home-made organic pesticides, a difficult to estimate cost. Income tax was not taken into account. No detailed tracking of these types of data has occurred in the project making this analysis speculative. See Matoti (2003) for a more detailed analysis.

[134] Haarlem: 30MT from 10ha; Ericaville: 18.5MT from 5ha. Revenues of R120,000 ($20,000).

gift) rather than as investment capital. Therefore, while honeybush cultivation currently represents only an additional source of income supplementing other income streams for the farmers, it holds great potential for future income if farmers improve their production and business skills.

An interesting additional source of income and jobs is the honeybush nursery set up in Haarlem. The nursery is set up as a separate business with an investment of about R12,000 for an annual production capacity of 200,000 seedlings (i.e, just over half the cost of bringing one ha under honeybush production)[135]. As such the nursery has achieved three valuable outcomes. First, the nursery reached a sales level of R140,000 (almost $25,000) in 2005, i.e., far higher than the wet tea sales of all the Haarlem farmers put together. The net margin is about 30%, i.e R42,000 ($7,000) or a return on investment (ROI) of 350%. Most of the sales were created by the ASNAPP project which pays for the seedlings and then gives them free of charge to the farmers in the initial plantings. However, commercial buyers of seedlings are increasing while future seedling sales to the ASNAPP project will be paid for by the farmers in the future.

Second, the nursery had the additional economic benefit of having created four to ten seasonal jobs (depending on the season).

Third, the creation of the nursery created a management position and the person who was selected for the position, Mrs. Evelyn Thysse, has become a skilled entrepreneur. Mrs. Thysse has won awards for the best informal market business every year since 2002 and became a key player in the emerging honeybush subsector (and, as a consumer, she does not even like drinking honeybush tea!)

7. Conclusion and Implications

This case-study analysis of the Haarlem and Ericaville honeybush growers illustrated how smallholder farmers have been integrated in a modern supply chain of an industrializing food sector. Assisted by an NGO, the farmers are amongst the pioneers of cultivated honeybush production in South Africa and they have entered a market which appears to be just taking off and to hold great growth potential, especially if farmers can upgrade.

In reference to the models presented in section two, the farmers have shown little upgrading over the first five years after their initial investment. While there has been some expansion in the area cultivated as well as some investment in additional infrastructure (e.g., the packing shed constructed by the Ericaville farmers), for the greater part there have been few improvements. The main reason is that the performance of the plantation, as a profit-oriented business, is weak. Although the farmers have little market power, the nature of the governance structure of the market relationship as well as the performance of the farmer groups' network partners appear to allow viable benefits accruing to the group. That benefits (net earnings) are low is mainly due to the weak performance of the farm groups themselves. With limited net earnings and access to capital, farmers do not have the means to invest and upgrade.

[135] Investment costs and margins for the nursery operations are based upon data provided by ASNAPP.

The one exception to the above is the well-performing honeybush nursery. This nursery has delivered value, been carefully managed and been profitable. The growing profits have allowed the business unit to expand consistently from year to year.

Based on the experiences of the Haarlem and Ericaville farmer communities, four implications for development programs can be drawn.

First, beneficiary selection is a critical determinant of the success of the project. In South Africa, many smallholder farmers have become dependent on social welfare payments, grants or other "free monies". These farmers have become lethargic and have done little with the money, once received. Selecting farmers who have demonstrated an eagerness to advance themselves and who have shown clear management potential will increase the likelihood that the project funding will have a high pay-off.

Second, the farmers' managerial skill and business orientation are usually the most in need of development. Most farmers do not have a business or entrepreneurial mentality. Either they have been workers on commercial farms with little or no managerial responsibilities or they have their own farm but this farm is subsistence oriented rather than commercial. The managerial aspects of finance, marketing and operations are unfamiliar to the farmers. Benchmarks are not set and costs are not tracked and hence economic performance cannot be measured. Farmers take a rather passive attitude toward market development, preferring to lean on supportive organization (e.g., NGOs) instead. Farms are managed inefficiently and ineffectively. Farmers do not develop business plans to guide their farm's strategy.

Third, the success of the honeybush nursery in Haarlem illustrates the potential of dividing up a project in strategic business units (SBUs). SBUs are cost centers and their creation implies specific management positions which provide an ideal training ground for the farmers to build their business skills. The very nature of cost centers (i.e., specialized units seeking efficient resource use and markets wherever they are) provides a stimulus for related businesses and from there leads to development through clustering.

Fourth, the ASNAPP approach assured that the whole supply chain was analyzed and set up before the project started. Well-functioning supply chains (i.e., those who remain competitive through constant upgrading) require a careful selection of all the partners required along the supply chain. In the case of the Haarlem and Ericaville honeybush growers, these partnerships included research organizations, input providers, credit providers, regulators, processors and marketers. Many if not all of these supply chain partners provide assistance or mentorship of one kind or another to the two farmer groups. Essential to the success of a farmer group (or any other commercial enterprise) is that supply chains are looked at in a systematic way (from input provision to consumer experience) and that the decided upon partnership covers all the critical elements required of competitive supply chains. This is systematic approach to value chain design is related to the systems approach in earlier development models (La Gra 1990).

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Part 2: Zambia: Two Case Studies

Case Study 5: The Lubulima Agriculture and Commercial Cooperatives Union in Zambia

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1. Introduction

The strategic objective of the PFID market intelligence activity in 2005 in Southern Africa was to identify the business models that allow groups of smallholder farmers to successfully access and remain in dynamic fresh fruit and vegetable markets. Previous research has detailed how the rise of modern retail formats is revolutionizing the structure of fresh fruits and vegetables supply chains and creating opportunities, as well as some challenges, for smallholder farmers in Africa. From this premise, we take the critical next step of analyzing in detail under which institutional and organizational formats (best practices) smallholder farmer organizations (SFOs) can be empowered to be competitive in dynamic markets in Southern Africa. A detailed understanding of the markets and the new business models for SFOs that are successful in these markets will provide powerful guidance to development programs aimed at replicating the success stories on a larger scale. The following is an individual case study analysis (intended to feed into a larger, multiple case-study analysis) investigates how an informal group of smallholder commercial farmers in the Lusaka province of Zambia succeeded in becoming a fresh produce supplier to a major exporting firm and how they have evolved from an outgrower scheme to an independent, formalized union of cooperatives.

In 1999, Agriflora, one of the largest fresh fruit and vegetable exporters in Zambia, (at the time but no longer in operation) approached the Zambian Agribusiness Technical Assistance Center (ZATAC) for assistance in developing a smallholder outgrower scheme in order to increase production of sugar snap peas and baby corn for exporting. Ten cooperatives within a 50 kilometer radius of Lusaka were identified as viable smallholder organizations for the outgrower scheme. Over the next three years, Agriflora and ZATAC, with the assistance of several other government and non-government agencies, the outgrower scheme was developed, production and post-harvest technologies were introduced, and the smallholder farmers began actively participating in this new market channel. During this process, a committee of cooperative representatives formed in order to work with Agriflora on issues pertaining to price, inputs supply, collection, produce processing and payments. This committee was the beginning of the Lubulima Agriculture and Commercial Cooperative Union (LACCU). Over the next four years as the relationship with Agriflora became increasingly strained, the fledgling committee grew in both its organizational capacity and its role as a second tier cooperative controlling management and marketing for the seven (three of the original cooperatives were dropped from the outgrower scheme) first tier cooperatives. By February 2004, just a few months before Agriflora went out of business, LACCU was formally registered and held elections, and a constitution was formulated. Since the dissolution of Agriflora, LACCU has successfully sought out a replacement market for their fresh vegetable products and have future expansion plans.

This case study aims to examine the situation of the LACCU cooperative members prior to entering the exporting market channel under the Agriflora outgrower scheme, how LACCU was able to shift to supplying York Farms following the dissolution of Agriflora, the current situation and the process followed by LACCU and support agencies in terms of technologies, organizational structures and transaction functions (governance structures) to meet the increasing demands of this channel. To accomplish this, we first begin by briefly describe the case study methodology utilized (section 2), discuss how LACCU evolved from its conceptualization as an

outgrower scheme to its present organization (section 3), and examine the characteristics of the markets (section 4). The rest of the paper then critically examines the business model that emerged and the resulting income effects (sections 5 & 6) and finally, in section 7, will provide implications for development programs aimed at assisting smallholder farmer groups to access dynamic markets. In doing so, the following areas will be specifically addressed: how LACCU's production and post-harvest technologies have changed; how the organizational structure (e.g. legal status, membership) changed; how legislative transaction functions (e.g., standards, contracts, price determination rules) changed; how judicial transaction functions (e.g. compliance monitoring and enforcement) changed; and how the executive functions (e.g. payment method, production plan, value-adding) changed.

2. Methodology and Analytical Framework

As mentioned in the introduction, this report represents a single explanatory case study (intended to feed into a multiple explanatory case-study analysis). The case-study presents data bearing on cause-effect relationships, namely, it explains how a farmer group succeeded in entering a modern market channel for fresh vegetables and maintaining that channel through a series of potentially debilitating challenges. The case study is the method of choice when the phenomenon under study is not readily distinguishable from its environment (Yin, 2003) which in this case is the emergence of a small farmer organization and the market environment in which it operates.

Theory is central in explanatory case-studies (i.e. these case studies have a research objective rather than a teaching or dissemination objective). Theory helps in the selection of the case(s) and in the selection of the variables. In this case we are guided by the analytical framework presented in figure 1 (static perspective) and figure 2 (dynamic perspective).

Figure 1: Static Perspective on Value Chain Analysis

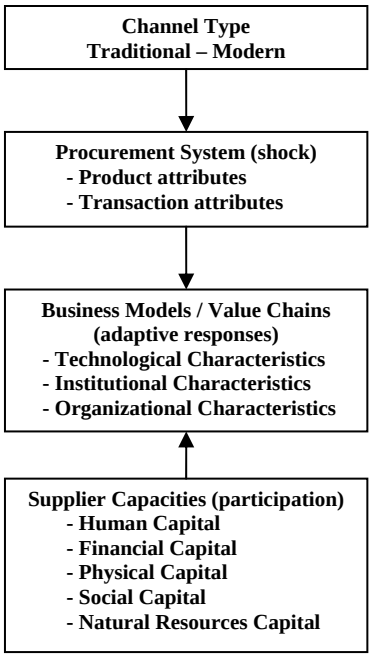
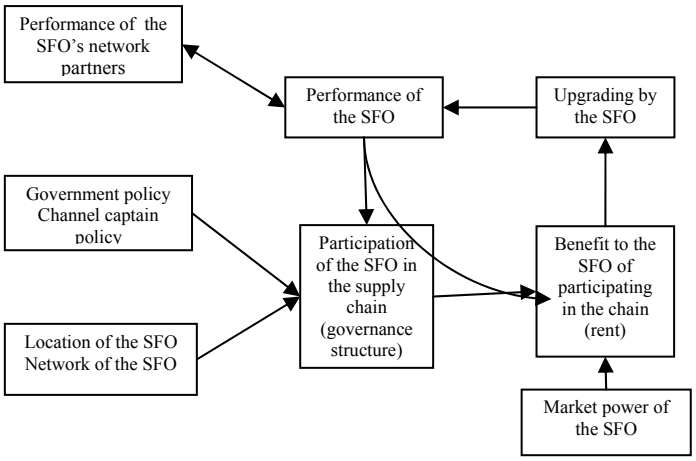


Figure 2: Dynamic Perspective on Value Chain Analysis



Case-studies that look at contextual variables add rich detail to the analysis. However, for internal validation of the findings, multiple sources of evidence are required (triangulation of data). The analysis presented in this report is based on key informant interviews with some secondary data and field observations.

The following people participated in semi-structured interviews using partially overlapping question sets:

- D.C. Moyo, LACCU Chairman
- B.J. Phiri, LACCU Secretary
- A.K. Muleya, LACCU Treasurer
- Felix Chizhuka, Agribusiness Forum Secretary
- Jacob Mwale, Agribusiness, Trade & Policy Analyst
- Wiggan Kanchela, Business Development Officer, ZATAC, Ltd.
- Mrs. Angela Muyuni, Vice President Makendi Cooperative
- Mrs. Mildred Hakamangwe, Member of Makeni Cooperative
- John Henderson, Owner/Manager York Farms Ltd.
- Dr. Glen Humphreys, ZEGA Training Trust

3. Background and Context

3.1 Formation of the Lubulima Agriculture and Commercial Cooperatives Union

Conception of Agriflora outgrower scheme and LACCU

In late 1999, Agriflora initiated an outgrower scheme in which approximately 250 smallholders were trained and assisted in the production of export quality vegetables. Agriflora, working with the Zambian Agribusiness Technical Center (ZATAC) and the Ministry of Agriculture and Cooperative's Support to Farmer Association Project (SFAP), facilitated the installation of 2-hectare irrigation systems for 130-140 farmers with the installation of manual-pump irrigation systems drawn from hollow manually-drawn wells covering ½ ha./farmer for an additional 100 farmers in the Katua Cooperative (most remote and least developed cooperative in the vicinity of Lusaka). In addition to facilitating the irrigation systems, Agriflora supplied all necessary inputs (seeds, fertilizer and chemicals) on credit, constructed refrigerated produce collection depots at each cooperative, and trained farmers on Good Agricultural Practices (GAP) and other crop production and management practices necessary for the new crops. ZATAC also worked directly with the farmers and cooperatives of the outgrower scheme to teach entrepreneurial skills and organizational capacity-building as the irrigation loans were financed by ZATAC and training modules were considered an integral and mandatory component of the loan arrangement.

From 2000-2001, the outgrower scheme seemed to be successful, once supplied with the necessary production and post-harvest technologies and training, farmers were producing baby corn and sugar snap peas for Agriflora and the cooperative members were satisfied with the arrangement. The Lubulima Agriculture and Commercial Cooperatives Union was informally

initiated in 2000 with a committee of Chairpersons from each of the cooperatives comprising Agriflora's outgrower scheme in order to serve as a communication facilitator between the various cooperatives and Agriflora.

Beginning in 2002, the present more independent and formal organizational aspects of LACCU emerged as a result of growing discontent with the pricing structure and pack rate issues arose with a perceived down-grading of the crops. A committee of cooperative representatives formed in order to work with Agriflora on issues pertaining to price, inputs supply, collection, produce processing and payments. The initial impetus behind the fledgling group of smallholders was the perceived unfairness of the prices they received from Agriflora for the sugar snap peas and baby corn, pack rates during the first two years of the arrangement averaged at 10-15% however over time this average fell to 5-6%. As a group they would have more power to negotiate these prices. However, LACCU experienced limited success in these negotiations as Agriflora began experiencing management and financial problems, ultimately culminating in its closure, in June 2004, when Agriflora went into receivership. With the potential annihilation of its one market for baby corn and sugar snap peas, LACCU went through a rushed process, evolving yet again from a previously informal, ad hoc price negotiating committee into a fully operational, independent formal organization that it is today.

Selected Farmer Communities

As briefly mentioned above, from the beginning planning stages, Agriflora, in collaboration with ZATAC, established boundary limit for the outgrower scheme of a 50 km radius from the Agriflora pack shed. This was intentionally decided in order to contain the extent of infrastructure and communication issues arising from dealing with multiple organizations and cooperative members. ZATAC then identified the potential for critical mass of farmer production. Ten production sites were selected that already had established cooperatives with which they could best economize the infrastructural technology and training requirements for establishing the outgrower scheme. These cooperatives were: Makeni, Buteko, Lusaka South, Lilayi, Nyemba, Kasupe, Great East Road, Leobex, Katuta, and Kumboshi. The remaining cooperatives within the 50 kilometers limit were considered to be "fertilizer-driven" cooperatives rather than market-driven cooperatives and would not be able to adjust to the demands of producing fresh vegetables for the export market. ZATAC and Agriflora staff identified the capacity of individual farmers within the cooperatives with input from the cooperatives' board of directors in order to select which cooperative members were eligible for participating in the outgrower scheme and receiving financing for the irrigation systems.

Before LACCU was fully formed and operational, three cooperatives fell to the wayside due to lower production levels (Katuta and Kumboshi) and governance issues. Leadership issues were a challenge, particularly in the initial more informal stages of the organization, specifically regarding which of the cooperatives would take the leadership position. Disagreements over leadership resulted in the self-withdrawal of one of the cooperatives (Leobex) when they were not chosen to lead the organization.

Within the remaining seven cooperatives, the composition of the members is distinctly different than that which is found farther into the interior of Zambia. Specifically, there is a trend for

middle/younger –aged people from the city, as well as a strong contingent of retired civil servants, beginning to farm in the area. Many of the retired civil servants have experience farming but only as hobby farmers. However, members in the seven cooperatives and specifically those members who were chosen to participate in the Agriflora outgrower scheme and that now produce baby corn for York Farms, are more highly educated and enter farming with a broader array of experiences. For example, LACCU's executive committee is comprised of a retired banker, a retired human resources manager, and a certified accountant who specialized in giving credit to farmers. This particular combination of experience has given the organization an advantage in tapping into government technical assistance programs and financial assistance that might not be available, or at least not so readily available, otherwise.

Evolution of LACCU and Status Today

Between 2002 and 2004, LACCU went through its greatest period of growth primarily in response to the growing problems with Agriflora. During this time, LACCU's responsibilities grew as, one by one, it attempted to step into the breach, with extensive assistance from ZATAC and SFAP, offering services and inputs that Agriflora had previously provided. One of the first indications of Agriflora's eventual decline was the inability to supply the necessary fertilizers. LACCU stepped in, buying fertilizers in bulk and selling it to members at a discount. ZATAC took these steps as a good sign began weaning the organization, taking a more hands-off approach. The next problem to arise was that Agriflora couldn't send out the monthly checks to the cooperatives, this eventually reached a point where they were 6 months behind in payments and even then Agriflora would only pay a certain percentage of what was owed, often as low as 30%. Farmers were losing the capacity to buy inputs for the next season's crop. At this point, SFAP intervened at the request of LACCU, and began financing the gap between product delivery by farmers and the payment by Agriflora. Eventually, in March 2004, the outgrower participants learned that Agriflora would not be buying the baby corn crop that was ready to be harvested. The farmers still had outstanding debt to ZATAC for the irrigation equipment which could not be serviced. LACCU began a market search to replace its sole buyer. This was particularly difficult as at that point in time there were only three companies exporting fresh horticultural products from Zambia: Agriflora with 80% of the market, York Farms and Borauss, with 15% and 5%, respectively. When Agriflora went bankrupt it was "like a big earthquake, it really scared members". Some farmers weren't paid for that season and still haven't been. Some members dropped out of both LACCU and their individual respective cooperative, others are simply inactive; 40-50% of total members fall into one of these two categories.

The relationship with York Farms began "purely by chance" as York Farms just happened to need more baby corn in May 2004. From the beginning, they were somewhat reluctant to enter into a contract with LACCU farmers as York Farms management was skeptical that the smallholders would be able to match their quality grades and standards to meet their demanding markets in the UK. However, in October 2004, York Farms agreed to a one year contract for 25 tons/week for the three month baby corn growing season as a trial run with the first deliveries made in December 2004. LACCU farmers matched York Farm's requirements and the grading percentage was found to be very satisfactory by all involved. The production delivery and transportation process is arranged utilizing the depots originally constructed by Agriflora at each of the seven member cooperatives, and a ten ton used truck donated to ZATAC by the U.S.

Embassy and on permanent loan to LACCU. Baby corn is collected by LACCU from the depots, delivering it to York Farms who then grades and weighs the produce to establish the pack rate and price. During the height of the harvest, these deliveries should be made daily. The current payment mechanism is organized such that York Farms has 30 days after the close of the month for payment. Upon receipt of produce at York Farms, vouchers are issued. Typically by 15th of the month following delivery, York Farms issues a check payable to LACCU who then issues checks to the cooperatives. The seven cooperatives are then responsible for distributing payments to the individual members. LACCU is attempting to establish a culture of trustworthiness and responsibility for financing, with both York Farms and their base cooperative members through this process.

With the transition to York Farms, LACCU was able to negotiate a the pricing mechanism, receiving in their opinions a better price than previously received by Agriflora. The problem is that York Farms only purchases baby corn and that is limited in tonnage, leaving approximately three-fourths of LACCU members inactive. The volume York Farms purchases from LACCU is entirely dependent on York Farms' market base. Depending on their own weekly supply, and the week's market demand, York Farms is willing to purchase additional produce from LACCU. The biggest challenge for York Farms in dealing with small-scale farmers, like the LACCU group, is the risk associated with pesticide residues and ensuring that all farmers have EurepGap certification. Maintaining traceability and transparency is also a very serious concern which is compromised the moment they purchase from anyone off their farm. For the moment they have been able to set aside the EurepGap issue with their buyers in the EU because they assured buyers that they are only purchasing baby corn (least amount of risk involved) and they have mandated that all LACCU farmers become EurepGap compliant within two years.

The LACCU executive committee members stated the organization's production capacity is comprised of approximately 500 trained farmers. Of these only 82 are currently active due to the limited market window selling baby corn to York Farms. Each cooperative is given a set volume level with the top 14 producers from each cooperative (the best of the cooperative members) currently producing baby corn. However, the committee insists that all members of the cooperatives are equally trained and capable so if and when problems arise the 14 current producers are easily replaceable.

One of the greatest challenges in switching from the production and post-harvest chain established by Agriflora as compared to York Farms is the change in input financing. Over the last year, LACCU has successfully built business relations with two major input suppliers. Initially assisted with an MOU guarantee from ZATAC, Bridgeway (fertilizers) and CropServe (seeds and agrochemicals) supply inputs to LACCU on credit. Immediately prior to the case study interviews discussion between LACCU and the input suppliers took place in which it was agreed that the next year's MOU would not require a guarantee from ZATAC. At the moment LACCU is able to source and finance members with seed capital borrowed from the government budgeted smallholder fund under the 2003/04 National Budget (MACO), this program is administered and monitored through SFAP (see next section).

For the 2005/6 growing season a new contract is being discussed with York Farms establishing a slightly increased volume of 35 tons/week. At the time of the case study interviews it was

expected that this contract would be signed within a few days. Another difference with the new contract is that this one will be a contract strictly with LACCU rather than with the cooperatives and individual smallholders. Along with this role as the primary contractor, where before payments were made through SFAP, they will now go directly through LACCU.

3.2 Enabling Government and Non-Government Agencies

From the initial stages of development, LACCU has collaborated and received assistance integral to its formation and growth from an array of government and non-government agencies. What follows is a brief description of the different agencies with which it has and is working.

Support to Farmer Association Project (SFAP) and Agribusiness Forum (ABF):
SFAP has worked closely with both LACCU and the individual member cooperatives for the past four years supporting extension services, inputs loans, and capacity building and irrigation equipment. The Project was part of the private sector development initiative of the Ministry of Agriculture and Cooperatives (MACO), it was a joint initiative between the Zambia National Farmers Union and the Agribusiness Forum (ABF). This project officially closed in June 2005, however, many of its activities will be assumed by the Agribusiness Forum (ABF). Created in 1997, ABF specifically works with joint initiative private sector and smallholder outgrower schemes. In the future ABF sees itself becoming less of a source for government/donor finance and more of an information hub for outgrower schemes and providing technical assistance backup to clients, managing grants and providing capacity building. In a financial capacity it hopes to provide less direct credit and rather become a facilitator, providing links for outgrower schemes and small farmer organizations, such as LACCU, to commercial banks and micro-financing institutions.

The Agribusiness Forum (via SFAP) worked with ZATAC (Zambia Agribusiness Technical Assistance Center) to provide credit for the irrigation systems installed under the Agriflora outgrower scheme. ABF continued its involvement with LACCU and Agriflora's outgrower scheme negotiating prices and terms, and from the MACO government funding, provided pre-shipment financing to the smallholders, bridging the period between export and smallholder production and transportation to Agriflora. In Zambia credit issues are "very straightforward". In order to receive the pre-shipment financing, the government funds had to go through the "transparent" and third-party SFAP project (now that it is fully registered with MACO, LACCU would now be an eligible third-party), rather than through the individual farmers, cooperatives, or Agriflora. Today, LACCU is a subscribed member of ABF. ABF has made available temporary office space for LACCU executive committee meetings, until such time as LACCU is financially stable enough to rent its own space.

Zambian Agribusiness Technical Assistance Center (ZATAC)

In a USAID project with DAI, the Zambian Agribusiness Technical Assistance Centre (ZATAC) was established as a self-sustaining agribusiness support organization. The organization's mission is to increase rural incomes through growth of rural non-farm enterprises, linking production to markets. In the final phases of the ZATAC project, an independent, sustainable Zambian-led organization, ZATAC, Ltd. was established to continue the ZATAC goals. The primary work of ZATAC, Ltd. is to increase the income and improve the quality of life of rural

Zambians through alliances fostered between agribusinesses and rural enterprises that buy from and sell to small producers. It is in this capacity that ZATAC, initially working with Agriflora's outgrower scheme as previously discussed, became involved with LACCU.

In 2000, DAI identified exported fresh vegetables as a potentially viable product focus for the project. At that time Agriflora only had 2-3 commercial farmers and they needed to expand production, however, heavy capital investment was necessary. In order to tap into funding from donor agencies and government technical assistance programs, Agriflora was interested in developing an outgrower scheme. Agriflora approached ZATAC and DAI in order to develop it. DAI and ZATAC were "taking on a challenge" but agreed to assist Agriflora. ZATAC financed approximately 80% of the irrigation systems installed in the cooperatives covering 249 ha. of land worth over US$458,000 on loan to the cooperative members. ZATAC also worked with the outgrower scheme cooperatives conducting entrepreneurial and organizational capacity building training. ZATAC, acting as an intermediary between Agriflora and the outgrower scheme cooperatives, assisted the cooperatives in establishing a democratic process by which the cooperatives would choose which members were eligible to get loans for the irrigation and contract. Discussions were held with the cooperative executive committees on the proposed budgets, potential yields, contracts, and what the procedure would be in the collaboration between ZATAC, Agriflora and the cooperatives, including who would have what responsibilities in the arrangement. Since Agriflora's dissolution, ZATAC's work with LACCU has continued in various capacities discussed throughout this report.

Zambia Export Growers Association (ZEGA)

Established in 1984, the Zambia Export Growers Association is a non profit association created to promote the interests of all growers wishing to export fresh horticulture produce. LACCU has made contact with ZEGA and are excited at the possibility of being accepted into the association as members.

ZEGA Training Trust (ZTT)

The Zambian Government, in conjunction with export growers and international donor agencies established the ZEGA Training Trust in order to educate farmers on the safe use of agricultural chemicals, how to work with pesticides and herbicides, and personal and consumer safety with special emphasis on internal management skills. The goal of the Training Trust is to enable Zambian farmers to produce crops for export that are of consistent high quality. Through a DFID funded project, the "Crop Post Harvest Program" which started in 2003, ZTT for the fist time worked with smallholder producers. The LACCU group was/is the main focus. At first they work under the Agriflora banner (ZTT was sub-contracted by AgriFlora to develop a quality processes manual, design a traceability system, train the farmers, do the internal auditing, etc.) now (after Agriflora's demise) there is a direct link between ZTT and LACCU (funding comes from the DFID project).

LACCU has signed a technical support agreement with the Training Trust to facilitate the training of cooperative members to meet the Euro-Retailer Good Agricultural Practices (EUREPGAP). This support to attain EUREPGAP compliance is initially for only three of the LACCU cooperatives: Makeni, Buteko and Lusaka South. This support will also extend to

raising the standards of the collection depots infrastructure to acceptable standards to meet market requirements. The aim of LACCU is to achieve final packaging for the markets at these depots.

4. LACCU Markets and their Procurement Systems

4.1 York Farms

Presently, York Farms represents LACCU's sole market. Established in 1988 as an fresh fruits and vegetable exporter, York Farms employs 2500-3000 people and cultivates 600 irrigated ha. and another 90 ha. of organic certified farmland of exported fruits and vegetables, producing approximately 3,500 tons/week. Horticultural production includes: sugar snap peas, mangetou, chilies, baby zucchini, baby carrots, purple sprouting and tender stem broccoli, kelda beans, climbing beans and soon will be producing passion fruit. To supplement their own production, York Farms purchases produce primarily from a variety of large-scale commercial producers. LACCU is the only small-scale farmer organization supplying baby corn (or any other horticulture product) to York Farms.

York Farms customers are mainly in the UK, primarily supplying Tesco Supermarkets. They are currently planning expansion projects into the EU, Australia and New Zealand. For the baby corn market which is the only crop York Farms is willing to purchase from LACCU farmers, at least until EUREPGAP certification is attained, they export on average 140-150 tons/week. During the off-season this average can fall to as low as approximately 120 tons/week. York Farms conducts residue testing four times/year on every product imported by Tesco and additional auditing is conducted at random intervals. During these testing period and audits, all commercial farmers and other suppliers such as the LACCU farmers also undergo the same examination process.

The primary and most exacting compliance York Farms requires of its suppliers is EUREPGAP compliance. As previously mentioned, York Farms has been able to continue supplying their export markets in the UK based on their assurance that all fresh vegetable producers, including the LACCU farmers will become EurepGap compliant within two years and until such time the only produce LACCU farmers will supply is baby corn. One component of the EUREPGAP certification is a water analysis (at the farm and the depot level). Water has to be of potable quality. One test costs $30 and given that there are 60 boreholes (one for each 2ha farm) costs run much higher than for a commercial farm which has maybe one borehole for 500 - 1000 ha. The actual test cost for LACCU are estimated at $6,000 which is based on an assumed 6 day audit for 120 ha (60x2ha) while comparatively large commercial farms of 500-1,000 ha. are tested in ½ to 2 days. The purpose of the inspections are to show the auditors that there is a quality manual and that there is somebody in control of making sure the manual is followed. External auditing for EurepGap is not conducted by ZTT. Within Zambia on a whole there are only about 6 audits per year. In Sub-Saharan Africa there are only 5 auditors (4 in South Africa, one in Kenya), these auditors have to be brought in annually to conduct EUREPGAP certification. Normally audits test the square root of the number of farms. In order to reduce the number of farms to be tested (and the associated costs) it is better to consider all the farmers part of one organization. Auditors, not used to groups of small farms working as a group, have to

realize that for a given standard, there is more than one system of reaching the standard (small groups are different from one big farm). Initially each depot (LACCU + depot + farmers) would be seen as a separate Primary Marketing Organization (PMO) to be tested. This would allow for those ready for the audit are not penalized by the other cooperative depots and farmers not yet prepared for the auditing process. This would also ensure that the whole of LACCU would not be penalized but just that one cooperative would fail the audit. Once all are aboard, LACCU can become one structure to be audited, incorporating all member cooperatives and small farmers.

4.2 Other Potential Markets

At the present time of this report, LACCU was still only supplying one market, York Farms. Some tentative moves have been made to approach other fresh vegetable exporters, one of which is Borauss, a relatively new and smaller vegetable export company. Borauss has indicated willingness to buy some produce from the farmers. This is still under negotiation though the volumes will be limited due to the facilities in use at the company. This also is dependent on the outcome of their market visit to the Europe and EUREPGAP certification of LACCU members Another export company which has just recently emerged is Chalivana Fresh, formerly part of Agriflora. However, due to its history with Agriflora, LACCU has not yet approached this farm as a potential market.

LACCU would like to access new markets, be they local, regional or transcontinental. Currently, they have plans to open an outlet in Livingstone to supply the growing tourism industry and also meet the perceived demand expected to arise from the Visit Zambia 2005 campaign. Market surveys need to be carried out in Livingstone as well as the bordering countries of Botswana and Namibia.

5. Farmer Capacities and the Emerging Business Model

We distinguish three key components to the business model used by the farmers to link up with the supermarket: organization, governance, and technology. This section will discuss each of these components in detail, explaining the various choices that were made and the problems that were encountered.

5.1 Organization

Cooperative Organization and Management

In June 2002, LACCU was formally registered as a cooperative with the Ministry of Agriculture and Cooperatives (MACO). In February 2004, LACCU held their first general assembly elections where the current leadership was ushered into office and a constitution was formulated. This evolution of a small committee of essentially disgruntled smallholder outgrowers to a full-fledged union of cooperatives took approximately four years. An official membership count is somewhat elusive with contrasting estimates by all parties due to the limited market window and subsequent large percentage of the membership base remaining inactive. However, there are approximately 568 farmers belonging to the seven LAACU cooperatives, with approximately 236 members actively participating at the individual cooperative level and another 80 members

actively participating in LACCU activities. Gender diversification is approximately the same in all categories (active/inactive and total cooperatives/LACCU) of membership, with female members totaling approximately 55-60%. One of the reasons for the strong female representation is due to the cooperatives proximity to Lusaka. In many cases, the husband works in the city (strong predominance of civil servants) while the wife operates a small "hobby" farm. Many of the LACCU members use farming as a risk management tool and supplementing their urban-derived incomes. There is a growing trend for middle- and younger–aged people from the city beginning to farm in the area. Within the last year, LACCU began admitting members from all over the country, though at this time these members are inactive as LACCU as of yet has only one market, as they have begun looking into local markets, specifically in the Livingstone area.

The Union is run through representation of three members from each cooperative, making up a 21-person steering committee. These representatives are elected according to democratic norms during the regular election cycle of the cooperatives. At the cooperative level there is a 9 member committee/board of directors which meets at least once a month. Each cooperative is monitored by the LACCU executive committee. The boards of directors at the cooperative level are responsible for monitoring individual farmers. At the cooperatives' monthly meetings they assess current production levels, both at the cooperative and individual farmer level. Through this process monitoring and enforcement takes place, discovering potential problems and taking appropriate measures (i.e. if a replacement farmer needs to step in to ensure baby corn production levels for the York Farm contract). The Executive Committee charged with the responsibility of running the affairs of LACCU is drawn from the steering committee and comprised of 3 persons namely, Chairperson, Secretary, and Treasurer. The LACCU executive committee is formed by three elected representatives who meet several times per month, and more frequently as the need arises. Once every three months the cooperative board of directors joins with the LACCU executive committee for a meeting. The depot collection centers are run by administrative personnel at the individual cooperative level. LACCU intends to set up a fully-fledged Secretariat to deal with Union matters, recruiting an office manager and an accountant to run the Secretariat in the long term. Currently, as farmers volunteer their time to attend to LACCU business, the steering committee members tend to run the meetings and other activities on an ad hoc basis and find their way to meetings as and when need arises.

The single most important key to LACCU's successful transition from Agriflora to York Farms is the Executive Committee. During the York Farms interview, the interviewee unequivocally stated that had it not been for the Executive Committee, specifically comprised as it is with the currently elected representatives, it is doubtful that York Farms would have entered into any contract with the organization. As previously mentioned, the executive committee currently consists of a retired banker, retired human resources manager, and a certified accountant who specialized in giving credit to farmers. This combination of experiences is unique and has allowed them to continue operating in the face of adversity, tapping into resources that might have been impregnable under different leadership. However, this in and of itself raises serious questions as to the future. The key to their future is to strengthen organizational capacity building, depending less on the strength of a few individuals and spreading organizational knowledge throughout the layers of LACCU management. The Executive Committee recognizes this and are trying to put everything in place and develop an organizational system to transfer their knowledge and experiences. They are also trying to establish a financial base and firm

rules of operation so that LACCU will be sustainable. Within the next 3-4 years they would like to bring in new younger members to ensure longevity of the organization.

Organization Support Program
As has been mentioned throughout this report, LACCU's access to and support from government and non-government organizations has been integral to its development and current status. Apart from financial and technological support, ZATAC's technical assistance in the development and organization of LACCU has been provided at every step along the way. From the initial construction of the Agriflora outgrower scheme, ZATAC assisted in providing technical assistance at the cooperative level, including developing individual business skills and how to operate a cooperative as a business entity. During the irrigation installment phase, ZATAC developed 6 modules for training, given on a monthly basis and then refreshment courses were held for the co-op's executive boards and board of directors. The modules covered: cooperative services for members, business skills development and operating in a transparent and democratic manner. As an ongoing service for LACCU, ZATAC also made itself available to attend the cooperatives' annual general meetings and board meetings in an advisory capacity. This training and organizational knowledge, instilled by ZATAC, has been instrumental in enabling, and encouraging, the members to identify with the goals of LACCU, hence facilitating the transition from an outgrower scheme to an independent organization.

Financial Management
During the transition from Agriflora to York Farms, the payment mechanism switched from operating through the seven individual cooperatives to LACCU functioning as a central intermediary between York Farms and the cooperatives. York Farms issues one check each month to LACCU. The executive committee then distributes the payments amongst the seven cooperatives, retaining a 1-3% member fee from each participating farmer. The seven cooperatives are then responsible for distributing payments to the individual members. LACCU's financial base is comprised of annual membership fees from the seven cooperatives. These fees can be made yearly, semiannually, or quarterly, as decided by the cooperative. Annual fees are currently 500,000 kwacha/year (approximately USD $4,000). In addition, those farmers chosen by the cooperatives and the Executive Committee to participate in the current contract with LACCU (approximately 80 farmers) each pay an additional "participation fee" of 1-3% of each month's payment from York Farms.

LACCU envisages limitations of finance will arise once the market is opened to more growers, as they will then need more resources to organize inputs for their members. Additionally, as the 80 participating farmers constitute only a small percentage of total cooperative members, without an expansion of LACCU's market, it is possible that some cooperatives may grow discontent with the fairly substantial annual membership fee.

5.2 Governance

In terms of the institutional structures that govern the transaction between LACCU and York Farms, two essential elements are the contract and the standards which stipulate the characteristics or attributes of the product and the transaction process.

Contract
In terms of contracts, LACCU is preparing to enter into its second annual contract with York Farms. This contract delineates the trading terms with a minimum production volume, production standards for acceptance by York Farms and the payment mechanism. The volume York Farms purchases from LACCU above and beyond the minimum volume, is entirely dependent on York Farms' market base. Depending on their own weekly supply, and the week's market demand, York Farms is willing to purchase additional produce from LACCU. The first contract with LACCU was initiated in October 2004 for 25 tons/week for the three month baby corn growing season. At the time of the interviews, LACCU was negotiating a second contract with an increased volume of 35 tons/week. The production standards as laid out in the contract are minimal, York Farms only requires that baby corn production use inputs (seed & agrochemicals) from a provided list of approved inputs.

Standards
The future of LACCU's market access to York Farms is entirely contingent upon compliance to EUREPGAP within two years of the initial agreement. If by October 2006, EUREPGAP certification is not achieved, LACCU will no longer be able to supply York Farms with even baby corn.

In recent years (2003-2004) they have had trouble gathering the momentum to reach EurepGap standards. Previously under the outgrower scheme, Agriflora assisted the individual farmers in achieving and maintaining these standards, however, this assistance lapsed sometime during 2003. Currently LACCU is working with the ZEGA Training Trust to achieve EurepGap certification. The Training Trust conducts training on grades and standards and provides some funding for training. LACCU has signed a technical support agreement with the Training Trust to facilitate the training of members from three cooperatives (Makeni, Buteko and Lusaka South) to meet the Euro-Retailer Good Agricultural Practices (EUREGAP) compliance by the end of 2005. LACCU has approached ZATAC for funding for a fourth cooperative to receive funding and facility upgrading. This support will also extend to raising the standards of the collection depots infrastructure and cooling facilities to acceptable standards to meet market requirements, as these depots will be the point for final packaging for the market. A key problem for LACCU's certification is that at the current volumes it is not feasible (without donor funding) to pay for the cost of certification (was estimated at $6,000 recently). LACCU can not supply larger volumes due to current market limitations: York Farms will not buy other produce due to the lack of EUREPGAP certification and LACCU currently has no other export market.

Sanctions for not meeting standards are not built into the contract between York Farms and LACCU, but LACCU has created an internal governance mechanism to monitor and enforce production by members. To date, this mechanism has been used only to monitor production volumes rather than compliance with standards, however, the LACCU executive committee acknowledges that this is an additional role it will have to fulfill in the future, particularly as the contract with York Farms is at the organization's level, rather than with individual farmers.

5.3 Technology

Land & Irrigation
Irrigated land is currently not a constraint for LACCU. Under the initial Agriflora outgrower scheme approximately 130-140 smallholders received irrigation covering 2 ha./farmer. With only 80 farmers currently producing baby corn for York Farm, LACCU has considerable room to expand marketing without encountering constraints due to irrigation or land.

Production Inputs

Under the outgrower scheme, Agriflora provided training on tillage and fertilizer applications, and provided a pesticide spraying team that visited each farm to apply the appropriate pesticides to the baby corn and sugar snap pea crops. Following Agriflora's demise, LACCU had to devise a system for supplying inputs. With the assistance of ZATAC, LACCU was able to meet this challenge, creating MOUs with two of the main input suppliers in Lusaka: Bridgeway Commodities, Ltd. (formerly SASOL) for fertilizers and CropServe for seeds and agrichemicals. For the first year of independent operation (2003/04), establishing the MOUs were only possible with ZATAC guaranteeing the credit loan. However, LACCU managed to fully service the loan and ZATAC did not have to assist with any payments thus establishing good credit with the input suppliers. Given this proof of their ability to function as an independent organization, the renewed MOUs for the 2004/05 growing season, ZATAC's guarantee was not required for the input credit. LACCU has been able to continue servicing these loans though the ZATAC interviewee had heard that at present (July 2005), there were some delays in payments.

Transportation
Transportation of LACCU's produce for delivery to York Farms remains a challenge. In January 2005, upon advisement from ZATAC, the U.S. Embassy donated a Kaiser Jeep/ 2.5 ton cargo truck to LACCU for the collection of produce from the depots and delivery to York Farms which lies 8 km from the town center. This truck is not ideally suited to the long-term needs of transporting perishable fresh vegetables as it isn't refrigerated, however, for the time being it will serve its purpose, at least until LACCU has procured additional markets with vegetables other than baby corn. However, the greater challenge is managing transportation logistics. York Farms would prefer daily deliveries of produce, however, LACCU lacks the personnel and financing (fuel, people, time) to manage daily deliveries.

Collection Depots
In order to pass the EurepGAP audit, LACCU has to improve its collection depots (at the cooperative level). At the farm level, EurepGAP standards are met. The seven depots are in various states of finishing with some being just a floor and a roof. With the current level of funding available only three depots can be brought up to standard. The depots need to have separate input containers, cold storage, potable water (borehole), a toilet, hand-washing facility, and separate pesticide storage. The facility must be constructed so that inputs and produce are not in the same room as well as have separate entry point to the facility.

York Farms would also like to see LACCU install cooling sheds, either at the farm level or at the cooperative level. Cooling sheds do not have to be high tech, just a thatched grass sided cooling

shed would do (that's what York Farms uses) but some sort of cooling shed is necessary, particularly in the summer months.

In preparation for future plans of direct exporting, LACCU would like to construct their own packing shed. This would enable them to market value-added horticultural products and become a specialized wholesaler for demand buyers in the region (such as regional supermarket chains). The standard for a packing shed is not part of the EUREPGAP standard however, there is a packing shed standard as part of the British Retail Consortium (BRC). LACCU has not yet conducted a feasibility study for a packing shed infrastructural development project.

6. Income Effect & Economic Spillover

6.1 Income Effect

Prior to participating in the Agriflora outgrower scheme, LACCU members grew primarily maize with some fresh fruits and vegetables grown in backyard gardens for home consumption. A typical gross income for a good yield was around fifty bags (50kg/bag) earning approximately $680/year, which after deductions would leave an annual income of approximately USD $300. For an average yield, farmers earned considerably less, sometimes as low as 10 bags. A contributing factor to the lower yields was the lack of irrigation, as the majority of farmers grew only rain-fed crops from November to March.

The outgrower scheme with Agriflora considerably increased farmers incomes for the first two years before the relationship began to sour. In comparison to the situation with Agriflora, the contract with York Farms has enabled LACCU members to achieve more stabilized incomes, even with only the one product. To illustrate this change: In 2000, the pack rate with Agriflora was an average of 12% (of 100 kilos of raw packed baby corn, with a pack rate of 12%, the member would be paid for 12 kilos of baby corn). By 2003, Agriflora had downgraded the Union members' products to an average of 4.5%. In 2005, with York Farms, members receive average pack rates of 13-14%. The highest rate possible with baby corn is approximately 20% though that rate is highly unrealistic and even with the best farm management practices, farmers receive about 15%. York Farms purchases baby corn at a contract price of 1.10 British pounds/kilo. During the three-month production season, some farmers are able to reach income levels of £1000 (USD$568). With one hectare, on average a good farmer can get 4 tons for £500 (USD$284). However the average income is closer to £300 (USD$170). Production of baby corn runs for about 4-5 months with 3 cycles possible per growing season and it takes approximately 9 weeks once planted for baby corn to mature to the harvesting stage. With monthly payments from York Farms, farmers are able to finance their primary crop, maize.

6.2 Sustainability & Potential for Growth

Currently, sustainability and growth are seriously constrained by LACCU's lack of markets outside of the York Farms contract. LACCU management feels that the weakness primarily stems from a lack of resources. However, in order to finance additional resources and other forms of technical assistance, they will at some point have to begin paying for the services (extension, training, auditing, record keeping) that they've thus far have received pro bono from

the government agencies. To illustrate the potential cost for technical assistance services from the ZEGA Training Trust: a graduate from ZTT (who costs 200-300$/month) can deal with 20-30 farmers. With only the 80 farmers currently producing for York Farms, services for the entire group would cost approximately USD$ 800-$1,200. Volumes sold by LACCU must be such that it can cover all these costs before it even begins to contemplate providing its members with financial credit.

LACCU faces two additional constraints to sustainability, both stemming from the current limited market: mono-cropping, particularly with baby corn; and potential for cooperatives to discontinue membership. Baby corn is best grown in combination with livestock as it produces approximately 40 tons of green matter per hectare. This is ideally suited for cattle forage. Commercial farmers are capable of integrating both cattle and baby corn production but would seem to be beyond the capacity of most small farmers. Additionally, over time mono-cropping will only result in lowering production yields. If LACCU is able to find additional markets this problem can be circumvented through crop rotation. The potential for cooperatives ceasing to participate may be a more imminent challenge. With only 80 farmers producing for the current market, the vast majority of the cooperatives' members are not directly benefiting from LACCU membership. The annual fees are not insubstantial. LACCU must work toward increasing the percentage of farmers benefiting from their services in concrete terms of increased incomes, given York Farms limits of 35 tons/week, this can only come about through accessing new markets.

LACCU's goals and objectives as an organization are expansive. They have hopes to construct a packing shed and once EUREPGAP certification is procured, they would like to begin exporting directly, without being dependent on larger exporters such as York Farms. LACCU does not yet have a strong understanding of the fresh fruit and vegetable export market. To get produce on the shelves of a supermarket is a major challenge and very competitive, simply knowing how to produce a quality product is not sufficient. LACCU doesn't have any experience accessing these markets on their own. They need to have a better appreciation of market demand. While LACCU has big dreams of directly exporting produce, they have a long way to go before the dream is actually realized. However, at the current production levels, more members would have to become actively involved with the organization. For this to happen, more immediate markets must be procured which is the purpose of entering local markets such as in Livingstone, or regional markets in Botswana. The farmers have to become more familiar with a demand-driven dynamic market, tailoring its production to meet that demand.

7. Development Program Implications

The case-study shows how even with substantial challenges in the form of markets and technical resources, a group of smallholders producing perishable vegetables can access and sustain dynamic markets if the organizational foundation is sound and government support services exist. However, these elements alone are neither self-sustaining nor pre-determinant of ongoing success without knowledge of dynamic, demand-driven markets, and a more concrete knowledge of the various supply chain elements that need to be in place to get products to move from the farm to the end market. While bringing all the required supply chain elements together in one

business model is a challenging objective, the potential income-growth impact of a working business model that links smallholder farmers to dynamic modern markets is considerable. The LACCU case-study illustrates the need for a new approach to development projects at each of five successive project development stages: selection, research, design, implementation, and monitoring.

In terms of project selection, the LACCU case began with several advantages which enabled their access to dynamic markets (exporters) and that these markets offer important advantages for producers. The boundaries of the outgrower scheme with Agriflora were set at a 50 km radius from their packing shed in order to maximize efficiency of communication and minimize infrastructural constraints encountered in locales farther from the urban center of Lusaka (roads, relative ease of constructing irrigation & lower costs of transportation, communication, etc.). Additionally, the farmers invited into the outgrower scheme were all members of functioning agricultural cooperatives with critical mass for production. These central specifications of the outgrower scheme carried over to the advantage of LACCU as it went through the formative stages of organization. Additionally, due to the locale of the project, particular characteristics were common among the type of smallholders farming in the region and through their united experience with Agriflora, a unified identity and cohesive goals and objectives of the organization were formed. Through this experience and the proximity to Lusaka, LACCU was able to capitalize on these advantages, both in terms of the access to government services for technical assistance and financial assistance, in terms of the characteristics of the smallholders desirous of participating in the organization, and finally the proximity to the end market (Agriflora and now York Farms) and an urban center with good, pre-existing infrastructure.

Second, the LACCU case illustrates that if smallholder farmer organizations want to remain in and grow in the supermarket channel, they must understand the requirements of the market. In order to understand the requirements (and the willingness to buy) of an identified market, market intelligence must be gathered and the requirements of the market must be compared to the capabilities of the farmers. The ideal situation in terms of understanding the market arises when buyers, like exporters or supermarkets, are actively involved in the development project right from the start. LACCU has some limited organizational knowledge of the demands of the export market first through the experience with Agriflora and now with York Farms. As they have evolved as an organization, their research capacity has also expanded as they learn first hand the demands of the market epitomized in their sole buyer. However, a more comprehensive understanding of the market is perhaps the greatest current challenge threatening the continued success of the organization. The buyer's requirements can be classified into product and transaction requirements. Product requirements imply that the producers can supply a product that meets the various specifications as laid out in the exporters' product standards. With regard to the physical product itself, these standards are relatively straightforward. The more challenging requirements are those related to the transaction. Transaction is here used in a broad sense referring to all the production, post-harvest and marketing activities farmers have to commit to in order to be able to transact with exporters or supermarkets. Exporters want consistency, not only in quality and safety, but also in volume. Farmers must supply according to predetermined supply programs. In order to assure farmers are capable of doing so, exporters demand compliance with various process standards. In the case of LACCU, these standards are the EUREPGAP standard. Compliance with these standards is strict, monitored through various

audits and enforced through sanctions such as delisting. Beyond these production and post-harvest standards are the requirements with regard to the management skills of the farmers. For example, staggered production plans amongst members to ensure steady and reliable volume, reliable transportation, constant communication with the buyer, clear traceability identification on packaging and smooth cash flow management are critical when selling to exporters. LACCU has successfully met only a few of these objectives so far, while others are becoming potential problems.

Third, the case shows that in order to comply with the various requirements of the exporters on an ongoing basis, and ensure that benefits of the transaction are distributed equitably among the members, projects must be designed so that the farmers identify with the organization and learn organizational capacity building skills at each level of the organization. The ongoing cooperative and business skills training supplied by ZATAC and SFAP has been instrumental in LACCU's success, as has the experience and strength of the Executive Committee. The organized structure of LACCU has fostered a level of trustworthiness in their relationships in both upstream and downstream levels of the supply chain. It is clear with the LACCU case-study that the organizational strength and cohesiveness of LACCU has enabled them to adapt to a rapidly changing environment. Throughout the various stages of formation and transition from an outgrower scheme to an independent organization, LACCU has encountered potentially debilitating obstacles, particularly in the loss of its first market access point, Agriflora, and equally as challenging, the loss of its original input suppliers. Only through the strength of the organizational structure and support by government and non-government technical assistance organizations was it able to persevere, finding a new buyer and input suppliers.

Fourth, the LACCU case-study clearly demonstrates that the success of a business model is to a large extent determined by its ability to adapt through cumulative learning. Organizational learning requires a systematic tracking of what has happened over time in terms of production, post-harvest activities and marketing and the dissemination of information throughout the organizational structure. LACCU has met some of these challenges though still in a somewhat rudimentary manner. A tracking system is in place with information flowing from the point of product delivery to the Executive Committee and then, in theory, to the individual cooperative level. However, whether the organization is making use of the information through monitoring practices is not clearly evident, particularly in regards to maintaining reliable volume levels and subsequent enforcement within the organization. Much of the organizational knowledge is captured within the individuals comprising the Executive Committee with insufficient dissemination to its members.

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Case Studies of Farmer Organizations Linking to Dynamic Markets in Southern Africa:

Case Study 6: The Kafakumba Training Center, United Methodist Church Mission, Luanshya Province, Zambia

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1. Introduction

The strategic objective of the PFID market intelligence activity in 2005 in Southern Africa was to identify the business models that allow groups of smallholder farmers to successfully access and remain in dynamic fresh fruit and vegetable markets. Previous research has detailed how the rise of modern retail formats is revolutionizing the structure of fresh fruits and vegetables supply chains and creating opportunities, as well as some challenges, for smallholder farmers in Africa. From this premise, we take the critical next step of analyzing in detail under which institutional and organizational formats (best practices) smallholder farmer organizations (SFOs) can be empowered to be competitive in dynamic markets in Southern Africa. A detailed understanding of the markets and the new business models for SFOs that are successful in these markets will provide powerful guidance to development programs aimed at replicating the success stories on a larger scale.

The following is a brief description of an individual case study analysis which was intended to feed into a larger, multiple case-study analysis. The case studies of the overall market intelligence activity was based upon local informants recommendations. The Kafakumba Training Center, an economic development project of the United Methodist Church Mission in Ndola, was selected due upon the recommendation of local informants and its regional successful income and economic spillover effects. However, it was only upon initiating the case study interviews, July 25-27, 2005, that the unsuitability of the Kafakumba Training Center (KTC) banana project as a sixth case study was discovered. The KTC does not fit into PFID-F&V's market intelligence research activity primarily due to the fact that it does not compete in dynamic markets.

The Center utilizes modern production and post-harvest technologies in order to produce bananas marketed locally to wet markets and street vendors. As a Mission, the project is aimed at assisting the poorest of the poor in the Ndola region. Additionally, due to rather unorthodox business practices (no accounting, contracts, or record keeping is maintained)[136] and the Mission's primary source of funding through charitable donations, measuring the approximate economic impact of the organization is fraught with difficulties. The following sections will briefly address the methodological approach of the market intelligence activity, some findings of the interviews conducted, and a primarily anecdotal description of potential income and economic spillover effects of the Kafakumba Training Center.

2. Methodology and Analytical Framework

As mentioned in the introduction, this report represents a single explanatory case study (intended to feed into a multiple explanatory case-study analysis). The purpose of the case-study was to present data bearing on cause-effect relationships, namely, an explanation of how a farmer group succeeded in entering a modern market channel for fresh vegetables and maintaining that channel through a series of potentially debilitating challenges. The case study is the method of choice when the phenomenon under study is not readily distinguishable from its environment

[136] Interviewee indicated that no business data are recorded. Whether this statement is factual or resulted from the interviewee's effort to protect the data could not be established.

(Yin, 2003) which in this case is the emergence of a small farmer organization and the market environment in which it operates.

Theory is central in explanatory case-studies. Theory helps in the selection of the case(s) and in the selection of the variables. In this case we are guided by the analytical frameworks presented in figure 1 (static perspective) and figure 2 (dynamic perspective).

Figure 1: Static Perspective on Value Chain Analysis

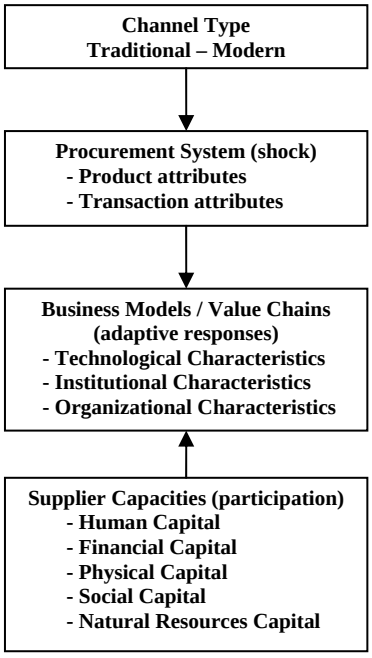
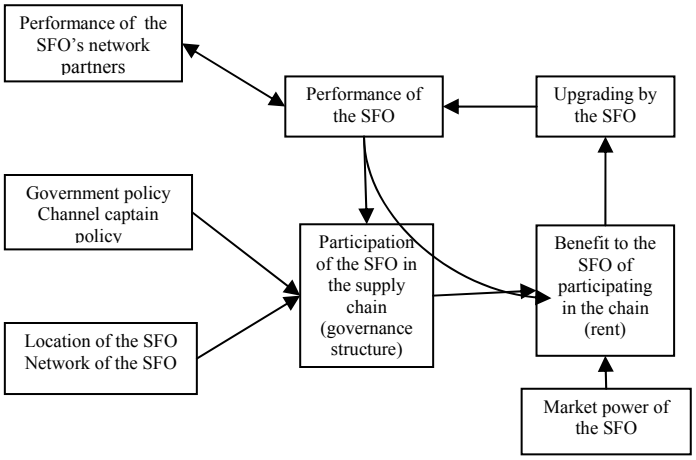


Figure 2: Dynamic Perspective on Value Chain Analysis



Case-studies that look at contextual variables add rich detail to the analysis. However, for internal validation of the findings, multiple sources of evidence are required (triangulation of data). The analysis presented in this report is based on key informant interviews with some secondary data and field observations.

The following people participated in semi-structured interviews using partially overlapping question sets:

- John Enright, Kafakumba Training Center and United Methodist Mission Director
- John Kayeye, Farmer and Mission employee
- Kathleen and Buster Lawrence, Farmers and Mission partners
- Kathy Ihunga, Banana Sales and Distribution Manager, KTC
- Demas Mawape, Banana production laborer, KTC
- Hostone Henry Nsosa, Saw mill laborer, KTC
- Lombe Mwakanandi, Deputy District Planning Officer, Ndola City Council
- Jessy Kambayi, Civil Engineer, Ndola City Council and daughter of KTC farmer, Miyiza Kamboyi
- Shadreck Mungalaba, Acting Provincial Agricultural Officer, Ministry of Agriculture and Cooperatives

- Curtis Vincent Kasikili, Luanshya District Community Development Officer, Ministry of Community Development
- Kafakumba Ndola Distribution Truck Driver and assorted Market Vendors at Main Masala Market and Chisokone Market, Ndola

3. Findings

In 1997, due to the increasingly difficult and dangerous environment, the United Methodist Church moved the Kafakumba Training Center (KTC) and Mission from Democratic Republic of Congo to the Luanshya District in Ndola Province of Zambia. In 2000, a banana project was initiated with approximately 4 hectares and 100 banana plants as a pilot project for economic community development of the region. Since the initial pilot project, the KTC has started a variety of cottage industries including: saw mill and fine wood-working, dairy, poultry, fish farming, and an apiary project. Financing for the various projects comes from a combination of charitable donations and reinvestment from profits generated through the different endeavors. While there is no concrete proof of generated income, the informal policy of the Center is to limit projects to those capable of generating a minimum income of $15,000/ha (as previously mentioned, the KTC does not keep records, accounting or use contracts).

Considerable effort is made to utilize the most modern production and post-harvest technologies. Prior to investing in the banana project, the Mission director conducted extensive research on banana production and suitability of the environment. Considerable investments were made in order to install irrigation systems and obtain tissue cultures from Israel (considered to be among the best). All outgrowers, or partners as the Mission calls them, are given banana suckers and irrigation is installed. In many cases, the Mission will also give potential partners the land for farming as well. Additionally the outgrowers are trained on growing techniques and have free use of the fertilizers made by the KTC. Upon harvest, the Center also acts as the market distribution center for all outgrowers. The KTC guarantees purchase of all bananas produced by outgrowers. The bananas are stored in a cold storage facility on the Center's grounds and distributed daily to local markets. In exchange for the Center's assistance, partners contribute 50% of the profit generated by the banana production, however, this as well, is not recorded.

KTC has set a banana production goal of 30 tons/day. The KTC sells all bananas locally, with trucks delivering approximately 200 crates (25 kg/crate) daily to the various local wet markets in the Province, specifically including the cities of Kitwe, Ndola and Luanshya. Additional bananas, though typically only the grade B bananas, are sold at the distribution center on the KTC grounds to market women for sale at the local villages. Banana prices are set as follows: 2,200 kwacha/kg for Grade A and 1,500 kwacha/kg for Grade B. In the Ndola Main Masala market, local vendors remarked that prices were slightly higher for the Kafakumba bananas compared to the price they used to pay for bananas from Zimbabwe, distributed by Freshmark. However, they preferred KTC's bananas due to the superior quality which enabled them to charge slightly higher prices at the market.

4. Income and Economic Spillover Effects

As should be expected due to the unique nature of this case, measuring the income and economic spillover effects of the banana project is difficult. It is impossible to know even an approximate sum of the charitable donations and contributions by the United Methodist Church, nor is it possible to measure its impact on the KTC's cash flow. However, the Mission's presence in the region is widely considered to have successfully impacted the region and its population. The following, primarily anecdotal, evidence of the income and economic spillover effect was gleaned during the interview process.

Prior to 1999, there were no farms the size of KTC, nor producing at such a scale, in the Luanshya District. Historically, the town of Luanshya derived its livelihood primarily from mining. However, the population has had to shift to agriculture as copper mining dried up, mining companies moved out of the region, and those that remained were unable to pay living wages due to the low world price of copper. Of those that moved into agriculture, very few produced bananas in the region. When the KTC began their banana project, they introduced new farming techniques which has greatly changed many people's attitude toward the crop. Now, banana production is growing throughout the region. For example, another organization, the Mutaba Adventist Academy has created another banana project, much like that of the KTC.

Partners to the KTC can be either financial donors to the Center giving charitable donations, or farmers participating in the banana project. The banana project is organized much like an outgrower scheme. The KTC gives all farmers all inputs and training on the new techniques and farming practices to reach high production and yield rates. In return, somewhat like repaying a credit loan, there is a revolving fund in which the farmers contribute a certain percentage of their income back to the Center.

There has been a gradual increase in farmer incomes as a result of working with the KTC, however, no records exist on either farmer incomes or at the agricultural production level at the Ministry of Community Development or Ministry of Agriculture and Cooperatives. The informant interviewed at the Ministry of Community Development has heard that the Kafakumba Training Center is making a tremendous income from their various agricultural and forestry ventures.

There is very low employee turnover at the KTC. This year not one employee has been fired of left of their own accord. The KTC offers good wages, free meals and medical assistance, as well as on-the-job training. Wages, at approximately 10,000 kwacha/day, are double what would be earned elsewhere in the region for similar work. There are many opportunities for advancement within the Center. For example, a typical employee will start out weeding banana plants however within a relatively short period of time, they eventually will learn each of the various stages of production. After a few years, if they are interested, employees have the opportunity to begin producing bananas on their own land as outgrowers, or partners of the Center.

Employment has also increased in the region. The following description illustrates this employment effect. Mr. Miyiza Kamboyi is a smallholder in the Luanshya District, farming six hectares of bananas and onions, in close proximity to the KTC. A few years ago, he began

producing bananas through the assistance of the KTC. Prior to producing bananas Mr. Kamboyi employed two full-time laborers. Now he has 3,000 banana plants and employees six to seven full-time laborers with additional part-time laborers employed on a casual basis. Other partners of the Center had similar stories though the number of employees varied from a mere six farm workers to over 200.

The Center has recently decided to expand its marketing activities, creating a new company, Go Bananas, which will directly market its products (starting with bananas) through small sales outlets throughout the region. While it can be surmised that this will increase profits for the Center, the impact on the current buyers, primarily market women selling at wet markets and on the street, is unknown. However, it will increase the competition, possibly resulting in harming the livelihoods of the population the Center purports to assist.

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