

# Regoverning Markets

Small-scale producers in modern agrifood markets

## Innovative Practice

### Guatemala

## The experience of small producers in competitive markets: a case study of OPCION/Aj Ticonel

Alberto Monterroso, Aurelle de Romemont, Oscar de León and Federico Grajeda  
OPCION/Aj Ticonel/Rimisp/CIRAD

# **Guatemala**

**The experience of small producers in competitive  
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a case study of OPCION/Aj Ticonel**

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**OPCION/Aj Ticonel, Rimisp, CIRAD**

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## **Regoverning Markets**

Regoverning Markets is a multi-partner collaborative research programme analysing the growing concentration in the processing and retail sectors of national and regional agrifood systems and its impacts on rural livelihoods and communities in middle- and low-income countries. The aim of the programme is to provide strategic advice and guidance to the public sector, agrifood chain actors, civil society organizations and development agencies on approaches that can anticipate and manage the impacts of the dynamic changes in local and regional markets.

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Innovative Practice is a series of country case studies from the Regoverning Markets programme providing examples of specific innovation in connecting small-scale producers with dynamic markets at local or regional level. Based on significant fieldwork activities, the studies focus on four drivers of innovation: public policy principles, private business models, collective action strategies by small-scale farmers, and intervention strategies and methods of development agencies. The studies highlight policy lessons and working methods to guide public and private actors.

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# 1. Introduction

The aim of this document is to highlight the innovative work undertaken by the OPCION/Aj Ticonel joint enterprise. OPCION / Aj-Ticonel provides support in production, marketing and organizational processes with the objective of generating improved incomes and living standards for small farmers. The main activity is the marketing (at both national level and exports) of non-traditional vegetable products. This innovative enterprise was developed through the work of the NGO OPCION, set up in 1999, in cooperation with the company-training school Aj Ticonel, established in the same year.

## 1.1 Guatemala: a country with inequalities

### 1.1.2 Basic characteristics of the country

The Republic of Guatemala has a surface area of 108,889 Km<sup>2</sup> and a population of approximately 12.6 million inhabitants. Guatemala's Gross Domestic Product (GDP) is USD 6,000, and around 24 per cent of GDP is attributed to agriculture. This sector employs 42.1 per cent of the working population estimated at 3.5 million people; 95 per cent of producers work at subsistence level, cultivating 20 per cent of arable land.

#### *Population and income distribution*

According to the IICA<sup>1</sup> annual report for 2005, in spite of all the efforts and resources invested in this area by the MAGA<sup>2</sup> and numerous NGOs, living conditions in rural areas are still precarious. The population's access to basic services is limited; only 44 per cent are connected to a water network; 71.2 per cent are subject to cramped living conditions due to the lack of proper housing; the literacy level for men and women stands at 64.4 per cent and 49.0 per cent respectively; education among young people between the age of 15 and 24 stands at 4.4 for men and 3.5 for women. Approximately three quarters of the rural population lives in poverty (75 per cent) with a third living in extreme poverty (30 per cent of the total population).

### 1.1.3 Production, trade and development

Towards the end of the nineteenth century, coffee was established as the main crop powering economic development. For this purpose, large areas of land were expropriated from the Church and indigenous communities, ending up in the hands of a few private owners. At the same time, laws were introduced that compelled rural workers to work for the large landowners. Although such measures led to the

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<sup>1</sup> IICA. Inter-American Institute for Cooperation on Agriculture.

<sup>2</sup> MAGA Ministerio de Agricultura, Ganadería y Alimentación (Ministry of Agriculture, Livestock and Food). Guatemalan Government.

growth of the country's income thanks to coffee exports, they produced a limited or non-existent interest among the big landowners to invest their profits in the country itself and encourage the development of an internal market.

Other products such as sugarcane, bananas, cotton and African palm, among others, were introduced in the same fashion and with similar results. Wealth was thus concentrated in the hands of a few, and poverty, along with extreme poverty, became more widespread.

By the mid-1950s, Guatemala, like many other Latin American countries, adjusted its economic development strategy with the introduction of an import substitution policy. Different companies set up in the country producing industrial products such as glass, tyres, confectionary, biscuits, etc. An incipient middle and working class began to establish in the cities.

### ***Production, trade and development in Guatemala, 1960-1980***

In 1960, efforts began to set up a Central American 'Common Market' – MERCOMUN-, which was a regional initiative aimed at integrating the region's economies. As a result, Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica began to differentiate their production and markets. Guatemala, for its part, along with (the provision of) certain industrial goods, started to become Central America's main supplier of fruit, vegetables and greens.

Moreover, during this period a conversion began from small local grocery stores to distribution chains otherwise known today as supermarkets. Such initiatives were mainly focused on the distribution of groceries, preserves, clothes and cosmetics. Initially, sales of meat and vegetables were restricted to just a few imported products, as families tended to buy such supplies in their neighbourhood or sectoral markets.

Economic growth between 1970 and 1980, mainly driven by the construction industry, along with the prevailing socio-political crisis, led to an expansion of city populations. And the exodus of economic migrants, mainly to the United States, and the remittances and/or economic transfers that they would send back to the country, stimulated the growth in the consumer capacity of certain segments of the population.

### ***Small farmer production: corn, beans and vegetables***

Historically, Guatemalan small farmers are producers of corn and beans both to sell and consume themselves. Thanks to the integration of Central American countries and growing city populations, some regions started diversifying their crops, specializing in the production of tomatoes, cabbages, potatoes, among others. Such

produce were destined for the traditional markets in the big cities and the consumer demand for vegetables and greens throughout the countries of Central America.

Towards the end of the 1970s, development strategies within the export sector led to the introduction of non-traditional crops located in different regions, responding to the consumer demands of developed countries. This allowed small farmer markets to diversify their income and production capacities. The development of these new products was accompanied by different and novel forms, procedures and standards as regards quality, safety, packaging and transport.

### ***Level of restructuring within the Guatemalan market***

Over the last 20 years, the Guatemalan market has observed significant changes in forms of distribution and consumption. On the one hand, the authorities have introduced the construction of large distribution centres for agricultural products, as a way of reorganizing the chaotic situation of heavy transport vehicles entering the cities: the Central Mayoreo, the main distribution centre for the distribution of agricultural products in Guatemala City itself, being one such example.

Located in these distribution centres are wholesale intermediaries specializing in specific products. These agents act as redistributors to neighbourhood or sectoral markets. Here also small store holders package products manually which are then sent to supermarket chains; for companies supplying such chains come to these centres for their merchandise. Either the distribution centres receive produce from small producers through intermediaries, who purchase directly from the rural communities, or via public transport (i.e., passenger transport) collectively hired by the producers in their communities. Specifically, the products are sent on the same bus as other passengers, alongside family members who supervise their eventual wholesale.

On the other hand, existing supermarket chains have a greater level of segmentation as regards their objective consumers. Thus, supermarkets such as La Fragua or Supermercados Paíz, diversify their product offer through different types of outlets.

To begin with, companies set up mega-supermarkets or rather 'Hypermarkets,' which combine the construction of shopping centres in order to specifically establish a hypermarket outlet that rents out smaller internal stores offering complementary or additional services; these may include baker's, banks, beauty salons, etc. Such supermarket formats offer a large selection of products under the same roof, including groceries, butchers, processed meats, dairy products, clothes, electrical household appliances, and perfectly differentiated sectors for fruit and fresh vegetables. Differences between different stores are determined by their locality and objective population. Consequently, in Hypermarkets found in high-income areas, fruit and vegetables are not only placed in more modern display formats, they are

also subjected to more demanding quality and presentation standards. This corresponds to the fact that consumers using such upmarket stores do so for advantages such as packaging, safety and security, among others. These outlets are focused on a high-income population that prefers to buy its fruit and vegetables in a supermarket, and is ready to pay a premium for improved presentation and quality.

The next type of outlet is the traditional Supermarkets which occupy premises in a shopping centre alongside other stores. These are geared towards satisfying the consumer needs of the middle classes, who will purchase their general groceries in such stores, but also use traditional markets to buy fruit and vegetables.

To serve the needs of lower-middle class sectors, there are different types of “Bodega” (warehouse) supermarkets, which La Fragua offers under the name “Maxi-Bodega.” In these stores, products are displayed in their own boxes and/or on very basic shelving structures. The offer of meats and processed meats, fruit and vegetables is practically symbolic, as shoppers generally use traditional neighbourhood markets for such products, and go to the supermarkets for the rest of their basic groceries.

Finally, the market has a working class format referred to as “La Despensa” (the larder) with the appearance of a huge grocery store where products are displayed in their boxes; there are practically no other customer services such as wrapping or credit card facilities. These stores target low-income groups, providing basic groceries and preserves; sections offering clothes and cosmetics are minimal, and fruit and vegetables are not stocked.

Alongside the Paíz-La Fragua supermarket chains, which control 60 per cent of the local market, there are two other supermarket chains in Guatemala. Supermercados La Torre which targets middle-class consumers, with smaller stores serving the families on the outskirts of Guatemala City, and the Samaritana supermarket chain, focused on sectors of the population in middle-class neighbourhoods. Only La Fragua-Paíz has stores in the country’s interior cities.

By the mid-90s and as a result of supermarket expansion at world level, and using the excess profits generated by this expansion, large international supermarket chains started to fix their gaze on the Central American market. This led the Dutch conglomerate Ahold to purchase a stake in La Fragua-Paíz in 2002 along with shares in other Central American supermarket chains. The venture did not yield the desired results and two years later Ahold decided to divest itself of the acquired shares.

In 2005, the world’s biggest supermarket company, Walmart from the United States, acquired a 49 per cent stake in La Fragua-Paíz, so beginning a new period of

modernization and change in all the stores belonging to the chain throughout Central America.

## **2. The experience of OPCION/Aj Ticonel**

The framework of the chain in which this innovative development takes place and the different actors involved, is outlined in the production flow, information and services diagram in Annex 1.

### **2.1 Administration, production and marketing: a non-governmental development organization, a company and small producer organizations working together**

#### **2.1.1 Improving the earnings of low-income families by means of productivity and trade**

The OPCION/Aj Ticonel (OAT) alliance works with small producers located in areas of extreme poverty. Rural families may either own or have access to small areas (between a half and three hectares) of low-grade arable land.

The alliance works with existing organizations or groups of producers. In most cases, such organizations present informal working structures, organizing their work as associative or casual groups. Among all the organizations involved, only two have legal recognition as legally registered cooperatives. At present, the alliance works with 93 organizations that represent approximately 2000 families in total, of which 400 are regularly cultivating and delivering products.

The average family has between six and 12 members, and generally belongs to one of the Cakchiquel, Quiché, Mam or Ladina ethnic groups. These villagers have limited access to basic services and present low levels of development according to the 2005 Human Development Report<sup>1</sup>. The provinces that make up the area of influence comprise Sacatepéquez, Chimaltenango, Sololá, Quiché, Huehuetenango and Totonicapán, which are located in the Guatemalan Altiplano or highlands; these are characterized by steep slopes a soil quality between 5 and 7, with a natural habitat of tropical forest. In these regions, the average value of the human development index stands at 0.565 according to education, health and economic income indicators (the national average stands at 0.663). These conditions of poverty, limited land ownership, and the poor quality and restricted access to basic services such as health and education, explains the low levels of productive development in the region.

The following table represents the percentage of producers working with OPCION/Aj Ticonel showing their total, arable land with irrigation for each

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<sup>1</sup> United Nations Development Programme. UNDP. Guatemala: Human Development Index 2005.

category. The growers generally own either all or part of their farmland, may rent part of it, or cultivate family-owned land of which they are not the direct owners.

**Table 1: Total areas, arable land and land with irrigation belonging to producers working with Aj Ticonel**

<b>Percentage of producers who have:</b>	<b>Total land area</b>	<b>Arable land</b>	<b>Land with irrigation</b>
<b>0 ha</b>	0	0	41.2
<b>from 0 to 0.5 ha</b>	32.5	60.5	44.7
<b>from 0.5 to 1 ha</b>	32.5	26.3	9.6
<b>from 1 to 1.5 ha</b>	14	5.3	0
<b>from 1.5 to 2 ha</b>	2.6	3.5	3.5
<b>from 2 to 3 ha</b>	6.1	0.9	0
<b>more than 3 ha</b>	12.3	3.5	0.9
<b>Total</b>	100	100	100

Source: own elaboration, June 2006.

We can see that over 87 per cent of these families have less than 1 hectare that is farmed, and that arable areas with irrigation are limited. We can also see that arable areas are reduced in comparison with the total areas available. On average, non-arable land covers around 40 per cent and is covered by forest. 95 per cent of the land is unsuitable for modern farming equipment.

Producers with less land frequently make use of makeshift irrigation systems, in order to improve land use throughout the year. Growers generally have limited access to technology: they work with machetes and hoes, and around half of them do not own a fumigation spray pump (they hire such equipment).

Most of the producers who work with Aj Ticonel have no previous experience in growing non-traditional products, being basically producers of corn and beans for their own consumption, boosting their income offering their services as agricultural day workers. Others did have some experience cultivating such crops, but were looking for improved sales opportunities.

An important factor for the organization is to work with existing groups and set ups, so respecting community structures. Thus, members of the groups already know each other, and as they are self-supportive as regards different activities, this helps articulation and communication with the organization. Such groups may vary in organizational structure (cooperatives, groups, associations, etc.), be formal or informal, with or without agricultural objectives. Producers deliver their produce

every two days to the group collection centre, which is then transported to the Aj Ticonel plant by the company's own trucks. Producers do not need any guarantees to work with OPCION/Aj Ticonel (OAT), but are helpful towards other members of the group and cooperative when it comes to guaranteeing credit loans and ensuring product delivery.

Representatives from OAT undertake meetings with all the members of each producers' organization when the ground rules are being set down for the business relationship, price negotiation, working procedures, norms and regulations. The aim of this process is that everyone involved understands what are their rights and obligations, and are able to assess the advantages and disadvantages of the association with OAT.

Once they are working together, information between OAT and the producers is always channelled via the group representatives, and never directly to the group. The purpose of this measure is to avoid any misdirected information and/or that some people may not respect the established communication channels. The producer groups come together each week to talk about any problems that have arisen, observations or requirements, and their representative will then inform either OPCION or Aj Ticonel regarding each specific case.

### **2.1.2 OPCION and its responsibilities in the chain**

The *Organización para la Promoción Comercial e Investigación* (Organization for Trade Promotion and Research) or OPCION, is a non-profitmaking civil association (i.e. a local NGO), which focuses its efforts on the development of organizational, marketing and production capacities and skills of the families of small farmers. Together with this development mission, OPCION also works alongside other institutional actors in the implementation of actions in order to share experiences and carry out advocacy in the drafting of public policies focused on rural-sector development.

At present, 11 people work in OPCION: 2 women in the admin and credit management area, 4 agricultural engineers who are responsible for technical assistance and training of small producers, and a coordinator for planning, national production and quality control; there is also a female coordinator for training and promoting gender equality; a Head of Projects and an Executive Director.

The association caters to the production and business efforts of 93 small-farmer organizations, via the setting up of a production and trade network. The alliance process allows for an increase in the production capacity of non-traditional vegetables, the development of new farming systems, market expertise and quality

control systems; these principal activities are geared towards the competitive growth of the agricultural producers.

The services OPCION provides to small producers via their organizations are credit loan facilities (given in the form of supplies, with a 5 per cent interest rate per cycle), technical assistance, technological transfer, production planning and product development, assistance and coordination within the framework of an agricultural diversification strategy and increasing available markets.

Credit loan services and technical assistance is carried out on a regular basis, responding to the needs and demands of small producers. Additionally, OPCION provides farmers with training regarding quality standards required by clients, and training and investment in Good Agricultural Practices (GAP). Each week production planning meetings are held, where the first step is to establish the amount of each product required by clients. Based on this determination, OPCION and Aj Ticonel then establish the area that needs to be planted in each region. This information is conveyed to all of the producers in each group, so that they may establish individual crop distributions. Following this, meetings are held in which the farmers' organizations delegates present their proposals for the areas to be sown in the following months.

Regular training sessions are held for group representatives to outline marketing strategies and the requirements they need to meet. All such services for small farmers are free of charge. To complement such work and with the aim of strengthening the competitiveness of small producers, the company promotes and finances investment in technology for irrigation, collection centres, and greenhouses for seedling production. These investments are undertaken with the groups or communities with which they work, using donations received by the NGO. Finally, back-up projects serve to improve the living conditions of these communities (schools, basic health infrastructure, improvement to roads and bridges, etc.).

As regards funding, OPCION is financed through donations, but also through its consultancy work and investigations carried out by its members for other organizations or institutions. Strategic decisions are taken in meetings of the Board of Directors, which is formed by OPCION staff representatives, one representative from Aj Ticonel and four independent members.

### ***The competitive experience of Aj Ticonel***

Marketing of the products is undertaken through the company-school *Comercializadora Aj Ticonel* (the Aj Ticonel Trading Company), which distributes the production in the Guatemalan market, and at Central American and International level. At present, the trading company has one General Manager; a managing assistant; a secretary-receptionist; one head of accounting and two female assistants.

The maintenance and logistics department employs two drivers, a refrigeration technician and one assistant, and two guards. The production department is integrated by a Production Manager, an assistant production manager; a person in charge of product reception, a reception assistant, and in the packing area two packing coordinators, and a packing staff of 28 women and two men. Total number of employees comes to 46 (12 men and 34 women).

Aj Ticonel's strategy is to guarantee the necessary business efficiency and effectiveness to produce sales that adequately compensate the efforts of Aj Ticonel, the small producers, clients and suppliers. Consequently, Aj Ticonel has developed products and working methods focused on obtaining high quality products. This strategy has been defined within a context of low quality demand at national level, and was principally developed for the requirements of the export market.

Along with the training in GAP provided to producers, the company has also developed Good Manufacturing Practices (GMP) and from 2003 onwards has been certified by Davis Fresh Technologies, a US certification company that was recommended by clients.

Additionally, the company has a very strong management ethos. Since 2003, it has run an internal programme for encouraging staff educational development. Around 35 per cent of staff now study at secondary or university level during company paid time. In order to benefit from this study service, each person must hand in a photocopy of their course marks every month. Such efforts are complemented by a policy of internal promotion incentives that favours promotions among the actual staff. Up until October 2005, the actual Managing Assistant was the Production Manager, and had started her career in the company as a packer, which had also been the job of the current company secretary-receptionist.

As part of the business competitiveness process, during the second half of 2005 seven members of staff were selected to undertake a Diploma Course in Administration geared towards Management, which was given by the Loyola Business School of the Americas over a five-month period. And since February 2006, the company has hired the business training services in the use of English of the *Academia Europea* Language School, in which 12 employees from the administration and production departments (7 women and 5 men) are taking part.

The company has focused its sales potential on international markets. Around 8 per cent of its sales are through the Paíz supermarket chain in Guatemala, and 2 per cent are in Costa Rica. Since 2005, along with its line of mini-vegetables and peas, it sells mini-carrots and radicchio. Sales per period are shown in the following table:

Total sales February 1999 to December 2005							
Aj Ticonel Trading Company							
Items	Feb-Jun 1999	Jul/1999 Jun/2000	Jul/2000 Jun/2001	Jul/2001 Jun/2002	Jul/2002 Jun/2003	Jul/2003 Jun/2004	Jul/2004 Dec/2005
5 lb boxes	35.031	118.683	140.463	135.027	194.409	168.848	
10 lb boxes	0	0	0	0	0	66.000	
Mini-veg, lbs	175.155	593.415	702.315	675.135	972.045	844.240	
Peas and others, lbs	0	0	0	0	660.000	1.735.910	
Total sales CIF USD	373.916	1.338.521	1.492.309	1.323.313	1.664.343	2.845.781	

The two organizations (OPCION and Aj Ticonel) are two separate entities which work together, sharing a common work ethic. OPCION deals with negotiations regarding social processes (it represents the social interest of the enterprise and the strategy applied to the small producers), while Aj Ticonel deals with the product side, its task being to guarantee the financial viability of the venture. These two goals or strategies are developed on a complementary basis by the organization, which holds a management meeting with representatives from both bodies to discuss all aspects of production, packaging and marketing of the products.

At production level, the company informs the NGO about the volumes that are needed according to the orders received from clients; the NGO then sets out a production plan with each producer group, involving a calculated plan for sowing. This crop sowing scheme is defined according to the needs of the most regular clients, and incorporates estimates for product losses and rejection.

At quality level, there is also communication between the two partners. The company informs the NGO about the standards demanded by the clients; the NGO's technicians then work alongside the producers to meet these requirements, developing new products or new agricultural procedures. The work of both the company and the NGO association allows this trade relationship to be maintained throughout the year.

### 2.1.3 The markets and clients of Aj Ticonel

International Market: the experience of Aj Ticonel in the United States, Canada, Mexico and Europe

The most important clients in terms of sales volumes (90 per cent of the products) are the clients located in the United States and Europe.

In Europe, the company exports to firm A<sup>1</sup>, an import broker, which in turn supplies firm B, a wholesale supplier that works with supermarkets, providing courgettes and mini-carrots pre-packed in 8lb boxes. This represents 20 per cent of sales volume, with deliveries by air three times a week. This market is one of the most demanding in terms of product quality, tracking and safety.

In the United States, the company's most regular clients are three import brokers in Miami and one in Boston; however, they also export to New York and California on a regular basis, depending on orders. Volumes sold in the US represent 70 per cent of sales volume, with deliveries three times a week. Sales to these clients consist mainly of bulk quantities of peas, courgettes, mini-carrots and radicchio, in 5 or 10lb boxes.

These clients have different quality requirements, depending on which one is being supplied, ranging from very high quality standards requiring certification to be presented (for supermarkets and exclusive restaurants) right down quality standards at all. This has a significant influence on Aj Ticonel's strategy, as the company adapted itself to the market's highest level of standards, and now tries to locate clients for whom such standards are important, in order to make the investments they have made more profitable.

Most of the clients in the US and Europe are not interested in working with small producers; however, the distribution client in London is considering emphasising this aspect as a way of attracting supermarket customers. However, such plans have not become widespread.

#### ***Central American Market: Costa Rica***

In Central America, Aj Ticonel sells the produce to a client in Costa Rica, firm C, which is a vegetable production and export company. This firm supplies the Pali supermarket chain in Costa Rica, and as a client represents 2 per cent of total sales volumes, receiving exports of courgettes, peas and Jamaica rose (*Hibiscus sabdariffa*). Deliveries are made every 15 days. The interest of this company to import Guatemalan products stems from the fact that it receives a subsidy for the transport of such products, which makes Guatemalan goods more competitive than their local counterparts. The requirements of this client are high as regards quality and tracking, due to high food standards in Costa Rica, along with a significant consumer demand for quality products. However, it is not particularly interested in working with small producers, but has a greater understanding, at times, of the problems that may be faced by Aj Ticonel as they share the same type of activities.

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<sup>1</sup> The names of certain firms with whom OPCION / Aj Ticonel works, have been removed due to confidentiality obligations.

*The Guatemalan Market: the experience of Aj Ticonel with the Paíz supermarket chain*

For the last seven years Aj Ticonel has sold non-traditional products to the Paíz Supermarkets chain, part of the La Fragua company. La Fragua is the most important supermarket chain in Guatemala, with sales of USD 631 million in the food sector and USD 74 million in the sale of fresh fruit and vegetables<sup>1</sup>.

This client represents 8 per cent of annual total sales volume. Today, the products sold through this outlet include courgettes, french beans and radicchio.

The company delivers the pre-packaged products directly to seven stores belonging to the chain (three Paíz hypermarkets and four stores with a more traditional supermarket format), all located in high-income residential zones; deliveries take place three times a week on Tuesday, Thursday and Saturday. Authorisation regarding what stores to deliver to and the assignation of bar codes is negotiated between Aj Ticonel and the Procurement Manager in the offices of La Fragua in the Central Mayoreo in Guatemala City. However, the quantities to be delivered must be negotiated with the head of the vegetables section in each store, on a daily basis. Deliveries are not made to the Perishable Goods Depot, which is the normal procedure with vegetables, as these non-traditional products do not represent significant volumes compared to other more traditional products (tomatoes, onions, etc.).

Aj Ticonel can be considered a loyal supplier to these supermarkets; however, La Fragua has a policy of retaining various suppliers for the same products, and the limited volumes assigned to each supply company do not allow sales to be increased through this channel. Additionally, the lack of consumer interest in such (non-traditional) products does not allow any projections to be made regarding any eventual surge in the volume of orders per supplier. The other suppliers to Paíz for such products are mainly wholesale companies that acquire their goods from local producers and/or in the Central Mayoreo in Guatemala City.

The supermarket has no interest about working with small producers, and does not place any value on this aspect when selling such products. It works with Aj Ticonel because it is one of the few companies that offer this type of pre-packaged product.

***Davis Fresh Technologies Certification***

This US certification organization visits the country each year to certify various producers and packing plants. This certification process is run by the company, in order to meet client requirements in the United States and Europe. Each year Davis Fresh bestows a GMP (Good Manufacturing Practices) certificate, and in the case of the production groups, a GAP (Good Agricultural Practices) certificate. This

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<sup>1</sup> Hernández et al, 2004.

certification company was chosen by Aj Ticonel from a list of certification enterprises proposed by one of its most demanding clients.

#### **2.1.4 Institutional actors**

In 2003, OPCION/Aj Ticonel received one of the 10 Rural Productivity awards made by the World Bank and the Soros Foundation. The objective of these awards is to recognize the efforts made in the generation of production initiatives in the rural area. A few months after receiving this accolade, OPCION/Aj Ticonel proposed to all those whose efforts had resulted in the award, that they should form a Members Guild to represent their interests, entitled the *Asociación Gremial del Empresariado Rural* (Association of Rural Businesses or AGER). Today, this body is integrated by 30 rural companies, and in 2006 AGER started organizing its own awards for rural productivity.

Apart from its concern to represent the interests among other actors and take part in advocacy in the formation of public policies, AGER also offers the chance for exchanging experiences, and other affiliated companies and cooperatives have therefore benefited from the knowledge gained by Aj Ticonel through selling its products to the Paíz-La Fragua supermarket chain. At present, Aj Ticonel and its affiliates are building production chains in order to jointly access a US and Canadian clientele. In February 2006, Aj Ticonel was elected president of the AGER Board of Directors for a 12-month period.

Since its foundation in 1999, Aj Ticonel has been an affiliate of the *Asociación Gremial de Exportadores de Productos No Tradicionales de Guatemala* (Guatemalan Non-Traditional Products Exporters Association or AGEXPRONT), which is the most important institution of its kind in the country. Appointed to its agricultural commission, Aj Ticonel has taken part in the AGRITRADE fairs organized by AGEXPRONT, which offer a display case of products for potential international clients. Additionally, within the framework of this trade association, Aj Ticonel has taken part in the PMA (Produce Marketing Association) vegetable trade fair, the most important of its kind in the United States, and has established cooperation agreements with Michigan State University in the same country.

In June 2006, Aj Ticonel, together with 14 other companies, set up the *Asociación de Productores y Exportadores de Arvejas y Vegetales de Guatemala* (Guatemalan Peas and Vegetable Producers and Exporters Association or ASOARVEX), a body representing 98 per cent of all Guatemalan exports to the United States and Europe. Aj Ticonel was subsequently elected vice-president of this organization.

## **2.2 Organizational and institutional analysis of the chain**

### **2.2.1 Description of norms and transactions in the chain**

Between each link of this chain, there exist various different requirements, norms and methods of transaction. We are now going to examine some of these factors, such as those between the producer organizations and the trading company, and between this company and its clients, in order to identify the actors who decide the norms and characteristics of the transactions, and to compare the influence that different clients have on this process.

#### *Between the growers and Aj Ticonel*

Basically, the organizations of small producers work independently, or rather, decisions are taken within the group. The trading company or OPCION does not take part in the decision taking processes within these groups. Accordingly, the groups decide how areas of cultivation, credit loans and supplies are to be distributed among members. Transactions between the producer groups and the company are defined by various factors (see summary in Annex 2).

The groups or producer organizations do not have any formal work contacts with the company, but do negotiate detailed sowing plan. These cooperation agreements are legally invalid, but serve as a tacit contract between the groups and OAT. These agreements outline the commitments adopted between the producers and the company in terms of areas to be cultivated, required quality standards, production funding and the prices to be paid by Aj Ticonel.

The established crop sowing plan outlines the degree of participation of each group contributing to the total production for the company. The plan is negotiated with the producers, but is based on the estimated demand of the clients. First, the group members decide among themselves regarding the areas and products they may sow, and then make a proposal to OPCION which reviews the proposal and tells the producers whether it is possible or not. The groups can consequently negotiate to increase or diminish the areas to be sown. OAT is committed to provide the groups with any necessary materials and credit facilities for the agreed production. This does not imply that the production must be exclusively delivered to the company, although the firm does attempt to increase the loyalty of the production groups in order to ensure delivery of the necessary volumes of merchandise. The technicians who draw up the crop sowing plans do so estimating a percentage for production losses or that given to the 'coyotes' (intermediaries). In order to determine on a daily basis the areas to be sown or crop volumes, transport costs from the production areas to the company depot are taken into account, so that the whole process is economically viable.

The producers are supposedly supportive when it comes to delivering products, although they are always prone to production problems or may deliver their products to other agents. Those groups that sow crops all year round for the company and deliver an important volume of their production, will always be favoured with a larger cultivation area in the future, along with easier access to credits and materials. On the other hand, those groups that only cultivate for the company in periods of low market prices, in order to sell to the wholesale intermediaries in periods of high market price, but still benefit from services such as credits or technical support, are not going to be favoured in the crop-sowing plan. In addition, those producers who only deliver the necessary amount of products to pay back their credit loans are also identified, and OPCION may decide to withhold credit facilities if the amount delivered is too small.

Additionally, some groups that are located in more isolated areas (Uspantan) are given a fixed price for their products throughout the year, which is an intermediate price guaranteeing an income for the producers. The distance between these groups and the intermediary markets is significant, and this lowers the level of competition for buying among the agents. These groups normally deliver all of their production to the company, and even with such price visibility, there are no problems regarding their loyalty and commitment to GAP. The company is now favouring these types of groups in order to ensure production volumes, and to consolidate confidence and loyalty between the producers and the company, which has been one of the biggest limiting factors as regards meeting client orders.

Quality requirements and production standards are directly defined by the standards received from the most demanding clients. These are communicated to the producers via training programmes and workshops (GAP) (see producer quality standards in annex 3). All of the growers receive training regarding GAP and quality standards, but not all of the groups are certified by Davis Fresh Technologies.

The producers have a good knowledge regarding the requirements of the clients, and know that they must provide a good quality product, as they are only paid for pounds (lbs) exported: those products that are rejected in the plant (on arrival and during packaging) are not paid for. This compels the producers to meet the export market requirements. At times, this causes delivery problems of the best quality products to the Central Mayoreo wholesale market, where prices can be higher during certain times of the year; however, working with the most loyal groups helps to resolve such problems.

There are 10 producer groups selected for certification, representing 60 per cent of the areas cultivated by the company. Groups are selected for certification according to the interest of the producers and their motivation regarding this process. However, a technical and financial evaluation of the process is also carried out

which takes into account any anticipated benefits. Certified producers receive an additional GTQ 1 per pound of product, with such products delivered only to the most demanding clients (those in Miami and London). Production cost per pound is GTQ 1.75, which means that the additional quetzal on the price paid over the market price, represents an important percentage for cost recovery thanks to certification.

As regards price level, various factors influence the price paid to producers: volume of product to be exported (the quality also influences this volume); whether the producer has certification; the region of origin of the product (fixed price in Uspantan); and the established price in the Mayoreo wholesale market.

For those producers who do not have a fixed price, the price may change on a daily basis according to the purchase price of the three clients in Miami. The producers may come and negotiate if they feel the price is too low, but in general, it is in line with the market price, and growers are confident that the company will pay a higher percentage than the prices offered by normal wholesale intermediaries.

Ultimately, Aj Ticonel has a marketing responsibility: if the company is unable to find clients, it still has to pay the producers, with an estimate for average product rejection. Accordingly, producers have significant payment security with the company, even though the market might be down.

Deadlines for paying the producers are between 10 to 15 days after delivery dates, in order to calculate how much has been exported. This may change in a period when payment to the company from the client is delayed, which has a knock-on effect on payments to producers (sometimes of up to one month). However, in general payment is regular and secure. The producers are informed of prices and reasons for any product rejection, and so have information regarding the processes that follow the delivery of their products.

The producers deliver their products to the company's trucks three times a week, after accumulating the products in the group collection depots. Aj Ticonel is in charge of transport, in order to help the small producers, but also to avoid any product deviation. Delivery to the trucks is constant, but as has been pointed out before, delivery volumes are not always those that are anticipated.

The greatest incentives provided by the company are the services offered by OPCION (credit loans, technical support, side projects, etc.), as well as the increase in areas cultivated. These services are incentives that encourage most of the producers to stay working with OAT, as it is very difficult to benefit from such services outside of the organization, where there are no such guarantees.

Penalties may arise in two cases, which individually affect the producer. Firstly, due

to bad quality caused by negligence; in this case, the company can refuse to accept deliveries of such a producer. If the low quality persists, it can stop to provide services and even refuse to include the producer in any more crop sowing plans. The company can also apply such sanctions if a producer does not deliver the product that has been promised. However, such cases can always be negotiated with producers according to their willingness to continue working with the company.

### *Between AJ Ticonel and the different clients*

Aj Ticonel's clients are quite varied, and with each one of the transaction characteristics they may change considerably (see summary in annex 4). There is no written contract between Aj Ticonel and any of the clients. However, a stable working relationship is maintained with some of them, to which the company supplies minimum volumes of products each week (clients in London, Boston, Miami1, Costa Rica).

All the export clients pay the air transport costs, but then discount this amount from what they eventually pay Aj Ticonel. Therefore, if there is a problem with the cold chain and the product does not reach its destination in a good state, the client does not pay for the product, although Aj Ticonel still has to pay for the air transport.

Information exchange and negotiations are carried out on a continuous basis with these regular clients. The most significant difference between the clients is the consistency of their orders, as well as at quality requirement level. In fact, Aj Ticonel's strategy is to provide high quality products, and to make this investment in quality more profitable with clients who appreciate the price to be paid.

Clients in London, Miami1 and Costa Rica have high quality standards, in writing, and demand certification (in the case of the first two). Product rejection is generally limited with these clients because the cold chain and product care is outstanding. Such requirements are mainly justified by the types of customers they are supplying (supermarkets, hotels, exclusive restaurants, etc.).

With the other export clients, the volumes requested are less regular as the clients tend to move around between production periods in Mexico and other supply countries. Therefore, Aj Ticonel gives its regular clients priority on their deliveries.

With the Paíz chain of Guatemalan supermarkets the working relationship is different. The supermarket has authorized Aj Ticonel to sell to its chain, but the company has to negotiate with the head of the vegetables section the volumes to be delivered each day. The retail price is negotiated separately with Paíz-La Fragua's Perishable Goods Manager, with a supermarket profit margin to top 48 per cent of the final retail price. The supermarket receives the products on consignment and will only pay for those products that are sold. Aj Ticonel must also pay stackers in the

stores to organize the products in the gondolas and replace any sold products with those kept in the supermarket's cold storage facilities.

Aj Ticonel can be considered a regular supplier to this chain of supermarkets, but as previously pointed out; there are no prevalent conditions to allow sales volumes to significantly increase with this particular client.

As opposed to other large volume products sold by Paíz that pass through its distribution centre and abide by its own standards, Paíz's quality requirements for non-traditional products are minimal in comparison with the level of export standards. There is no written criterion, and the norms are defined mainly in relation to product appearance, in accordance to Guatemalan standards. This allows Aj Ticonel, when it has sold all the prime quality goods through its export channels, to supply Paíz with a quality of products rejected for export (due to inadequate size, but undamaged and unblemished), with the understanding that such a quality is still high for Paíz. The supermarkets thus benefit from the high export standards, and the trading company benefits from the lower supermarket standards to sell part of its rejected produce, or its prime quality produce when the export market is down.

Looking towards the future, Aj Ticonel believes that higher standards are going to be introduced in the country (due to the purchase of Paíz by Wal-Mart). Hence, the producers that work with the trading company will have a competitive advantage for selling their produce on the national market, producing high quality products and with certification. However, at present they are unable to profit from the quality investments that have been made except through the export market.

### **2.2.2 Governance within the chain**

With the definition of the transaction characteristics between the different agents in the chain, we can see that some agents wield more power over the negotiation/definition of rules than others, a point which can be analysed from the perspective of governance.

According to Kaplinsky and Morris (2004), three aspects of governance can be singled out:

- **Legislative governance:** to define product attributes and transaction characteristics
- **Judicial governance:** to monitor the efforts of suppliers to meet these product and transaction standards.
- **Executive governance:** to implement support systems to enable producers to fulfil such requirements, and establish incentives or sanctions.

In the chain we are studying, and according to the aforementioned transaction characteristics, we can claim that at the level of standards and of legislative

governance, it is the most demanding clients who define the whole chain. The standards expected by the clients in London and Miami are those used by Aj Ticonel to define product quality for its producers and the training they are subsequently given. The company's other clients receive the same level of product quality without having to make such high demands, so benefiting from the other (more exigent) clients.

At transaction level, it is the clients as well who impose certain transaction characteristics on the company. However, Aj Ticonel does retain a certain margin of freedom, as it maintains various different clients with whom it can bargain if there are major changes.

As regards judicial governance, it is the company (Aj Ticonel) that monitors throughout the whole chain the standards demanded by clients. This process includes the option of a third party that provides validating certification (Davis Fresh).

As regards executive governance, it is OPCION that provides production support, while Aj Ticonel deals with the manufacturing side.

In this chain, various other chains within which exist different levels of transparency and trust can be defined. We can see that the company's strategies, whether towards producers or clients, are focused on reinforcing these links of trust, in order to create longer-lasting relationships, so leading to greater market visibility and profitability.

For example, the decision to broaden the pre-packaged market led to a business relationship where the clients are more product-dependent, due to the special characteristics involved. As a result, relationships that are more durable are established with certain clients. Additionally, greater profits are obtained by the added value.

It is possible to see that the export clients have more power in this chain, and due to the lack of a wider demand, the position of Guatemalan supermarkets is limited.

In the chain, producers are responsible for the regular delivery and quality of their products. They have very limited negotiating power within the chain, only regarding the areas to be cultivated and the technological components used. They have no power regarding what is decided in the rest of the chain (either at strategy level or regarding transaction conditions or product attributes). The producers in this chain are just part of its "segments," given that they take no part in any of the post-harvest operations, or management of the chain itself. They must simply do as they are asked by OAT. On the other hand, producers do have a secure income, payment and services (this last being free of charge). The responsibilities of

producers finish when they hand over the products to Aj Ticonel, which then assumes all risks involved in the export process.

As regards (marketing) strategies, the power of the producers is likely to change because the company is in the process of selling a 30 per cent stake of the enterprise to ten producer groups, whereupon three representatives of these groups will join the Aj Ticonel Administration Board. This will give them a more active position in the definition of strategies, but little leverage in the definition of transaction characteristics and the norms that govern the chain, as the company itself does not decide on such standards or product attributes: those decisions are made by the clients.

### **3 History and evolution of modernization and the chain**

Modernization began in 1996 on the basis of the work of a vegetable trading company, which also exported. Today, various members of Aj Ticonel once worked in this company, which had certain management problems. When said company started to default on the deliveries of its orders, the company buying their products, firm D, contacted the aforementioned personnel and asked them if they themselves could send the products.

They subsequently set up DEALSA, a vegetable production and trading company, and continued to work with the producer groups they had dealt with previously. They chose mini-vegetables (courgettes and string beans) as the main products as a response to client demand, but also because they were the products that best suited the production capacity of the growers with whom they worked (garden farming). The groups were formed by people living in extreme poverty, that owned little land and had limited access to technology, and no alternative form of production (they were unable to produce bananas or coffee due to the small amount of land at their disposal).

From the beginning the company established the objective of working with small producers, in order to reduce poverty and distribute income.

In 1999, disagreements arose with the DEALSA management regarding the use of economic resources, so they set up the company Aj Ticonel and the NGO OPCION, continued to work with the same producer groups, along with others that approached them, selling the produce exclusively to the client in Miami. Quality requirements during this period were minimum, only regarding appearance (size, colour and no mechanical damage). Training was also initiated in the form of rural farmer to rural farmer; when work was started with a new group of produces, an already experienced producer would be asked to provide training to the newcomers regarding the cultivation to be carried out.

The first changes were implemented towards the end of 1999, when the company put into practice a strategy of "breaking the fence," or rather broadening the number of clients it dealt with so as not to be dependent on just one client, and also to increase production and sales volumes, and so incorporate more producer groups into the production cycle. This also had the aim of paying off the company's fixed costs which had risen. During the period in question, around 1.4 to 2.1 hectares of land were being cultivated a month.

In accordance with this strategy, new clients were sought in the United States and

also Guatemala. One new client was located in Miami (firm E), and boxes containing products also began to be differentiated with labels, which helped publicize Aj Ticonel and reach out to new clients. Initially, clients had requested that boxes were used bearing their own name and logo or with some generic name, so that consumers would be unaware of the origin of the products they were buying.

At the same time, the new business started dealing with supermarkets, firstly with Paíz but also with the La Torre and Samaritana supermarket chains. At first, the main aim here was to demonstrate to the government that small producers could take part in the country's economic activity. Pre-packaged non-traditional products were sold, highlighted as being of "export quality." The demands of the supermarkets were only regarding appearance, being much lower than those of the export clients.

During a period, sales were also made to hotels and restaurants in Guatemala, but the order volumes were low and a large diversity of products was being requested: as a result, this outlet was terminated due to the complications involved and the low profits generated.

The strategy of "breaking the fence" was also carried out with external agents in the financial area. Aj Ticonel attempted to generate publicity and so make itself known in order to acquire funds, and change the attitude of cooperation agencies, by showing them that business projects could also help reduce poverty.

In the year 2000, a Salvadorean company that purchased in bulk and packaged the products for supermarkets, placed orders for mainly traditional products (carrots, potatoes, onions, tomatoes, etc.). In order to continue with the strategy of increasing their market, Aj Ticonel began developing these products with various groups already specialized in such cultivations, and also located new clients in Central America, principally firm F in Nicaragua, so providing sales in Nicaragua and Honduras of significant production volumes that created sufficient profits to cover the transport costs.

Aj Ticonel, then, continued with the sale of non-traditional products for export and a small volume for supermarkets, and traditional products for supermarkets but mainly for the El Salvadorean market. The producer groups were generally specialized in one or other type of product. The (quality) requirements of the new clients were no greater than those the company already adhered to. During this period, they began to develop quality standards with the groups, not because of any demands from clients, but rather to reduce the level of product rejection and losses suffered by Aj Ticonel, but not by the groups.

The following period, from the end of 2000 to 2003, was a period of comprehensive

plans to continue growing but also to differentiate itself and compete with other companies.

At the beginning of 2001 the company began to work on Good Agricultural Practices, so as to reduce the level of rejections and also be considered as a supplier of quality products. These efforts were boosted after the terrorist attack of 9/11, as it was thought that the level of requirements would steeply rise for export products, and not only as regards aspects of appearance, but also tracking, which the clients did not want to pay more for, especially because they were unable to differentiate the products they were buying from different suppliers. However, Aj Ticonel developed a tracking strategy with the belief that in the long-term, such characteristics would become the accepted norm, as well as using this aspect to differentiate themselves in an ever more competitive market (the coffee crisis in 2001 caused an upheaval in the plantations, which then began producing vegetables and increasing the amount of produce offered on the national and international market).

Training was carried out in GAP, they began improving the processing plant (Good Manufacturing Practices) and the certification processes of Davis Fresh Technologies. The US bioterrorism law began to be applied with all its regulations at the end of 2002, by which time the company's products were meeting all the new demands. They began to find new clients who needed such high standards and tracking ability, and who placed a lot of importance on such aspects.

The company continued to develop new products for new clients, in order to increase sales, and incorporate more producers (producing oriental vegetables in specific areas of the country). In the years 2001, 2002 and 2003, the company returned part of its profits to the producers in the form of over-payments for each export pound of vegetables, in an event organized at the end of each year.

The last period, from 2004 until the present day, has been one of consolidation and selection of producers and clients.

In 2004, the process of Central American integration was extended, and with the opening of the frontiers, the company lost the commercial advantages it had had with its El Salvadorean client and with firm F. Salvadorean intermediaries began to arrive in Guatemala to buy their produce directly from the Central Mayoreo, and/or bought the plantations still standing directly from the producers, under conditions of even lower quality standards. The production of traditional products was halted during that year, along with exports to El Salvador; furthermore, sales of such products to supermarkets in Guatemala also stopped.

Additionally, the company also realized that the supermarkets had a policy of using various suppliers for a single product: consequently, there was little room for

manoeuvre to develop new sales alternatives. Although their segment of the market could have increased in time, Aj Ticonel thought that if the supermarkets were going to keep various suppliers for each product, the increased volume of sales shared among so many was never going to be that significant. There was little hope, therefore, in increasing such a market, and the company stopped developing products for supermarkets, and focused more on the production of non-traditional vegetables with their gaze turned towards international exports.

Towards the end of 2004, Michigan State University recommended a new client, firm A, which was interested in exporting pre-packaged mini-vegetables and peas to London. The company was interested in contacting a Guatemalan firm, which not only had certification, but also high quality products throughout the year. The businesses relationship was forged and by the end of 2005 represented 20 per cent of Aj Ticonel's sales. At the beginning of 2006, the packaging of mini-carrots for this same client began, which was added to products such as peas and courgettes. This client has high quality standards and a fixed price throughout the year.

During 2005, in order to compensate for the lost Central American sales, a decision was taken to broaden the peas market in the United States. New import companies were contacted such as firm G and firm H in Miami, and firm I in New York. The results were not good as these were firms more used to the auctioning prices of their wholesale markets. As the sales were through consignment, the final price was not of much importance for them. After significant losses all operations with these buyers were cancelled. These are type 'C' companies, who market products without hardly any regulations.

Due to these causes, but also financial and climatic difficulties, this was a period of reduced costs and management changes. The damage caused by Hurricane Stan forced the company to layoff half the processing plant workforce.

In fact, the company tried to work with all of the producers who want to work with them, and with all of the clients that contacted them with different requirements; however, in the end they had to decide to specialize in certain products and a principal market in order to reduce costs and make the business more profitable, as it was Aj Ticonel itself that had to cover the product development costs, along with the non-sale of any products.

The company's policy is now to work with more viable groups, and with clients that are more secure and consistent. This is why they have forged relationships with clients that supply supermarkets, and who buy pre-packaged goods, as this guarantees sales in comparison to other types of client.

They still want to improve their installations and production quality, search for more competitive niches and select the producer groups with which they work. And they have changed considerably in the way they assess themselves, in order to become more competitive in an unstable market.

From an historical perspective, we can see that the position of producers within the organizational chain has not changed very much. They remain as mere links in the chain, producing the vegetables but with no power to take part in the definition of strategies. This is something the company is now working on, with its aim to transfer 30 per cent of its shares over to the producers.

At market level, regarding Guatemalan supermarkets, the company's way of working with the four characteristic pillars has changed over the course of time. Nevertheless, non-traditional products represent a marginal volume of sales of overall products, and in this case, the changes that took place within the supermarkets did not influence any great innovation, and did not allow sales or the relationship with the national market to be expanded.

## **4 Inclusion and exclusion factors affecting producers during the different periods of the modernization process**

We can see that during the modernization process, changes took place in the attributes of the products and the conditions under which transactions were carried out. These changes were implemented more in accord with the demands of the export market, and only marginally by the influence or demands of the dynamics within the Guatemalan market.

Changes in the attributes of the products were mainly related to changes in the quality of production and tracking of non-traditional vegetables. These changes were decided thanks to the strategic vision of the company in order to differentiate itself and be more competitive, although it became an obligation to maintain such characteristics in force. The producers were not involved in these decisions: this was decided by the company so as to meet the requirements of the clients.

To maintain the relationship with the company, the small producers principally had to change their production methods, working with good agricultural practices (which meant more time spent working on the farmsteads), and investing in irrigation systems and group installations (a collection depot).

Studying the history of this enterprise, we can see that at the beginning the requirements for working with the company were much less: the producer groups were selected on the basis of having a formal or informal group working structure, with representatives, and prepared to work with common objectives as regards production. An analysis of productivity was carried out to ascertain whether it was profitable to work with a given group, as regards factors such as cultivation potential and distance from the processing plant. However, the company always attempted to help the producer groups identify products or methods that would allow them to take part in the modernization process, providing technical and credit support for everybody.

During this period, inclusion or exclusion was carried out more on the basis of decisions taken by the groups rather than decisions taken by the company, except in the case of serious errors made by the producers (paying back credit loans, delivering products, for example).

Decision factors of the groups were different according to the production zones, and according to each group:

- According to the characteristics of the production region and its suitability for the product to be cultivated;

- According to the leadership within the group, favouring changes and the integration of new, more demanding practices, and the investment needed in these requirements (irrigation, collection depots, etc.);
- According to the remoteness of the production areas: in some cases, their remoteness was unfavourable for introducing changes (very traditional farming areas), however, in others, limited access to market information led to more loyal working relationships with the producers (for in those areas closer to the market, producers are likely to have more information and are therefore less willing to compromise with the company);
- According to the level of migration in the region (in some areas where large amounts of remittances are received from migrants, people may stop working with the company because they are receiving a larger monthly income through a remittance);
- According to competition for cultivation time between non-traditional products and other products or activities (labour, religious, etc.): in a zone with few alternatives, the groups were more committed to the company, and more willing to change towards greater dependence on vegetables for their income;
- In certain groups, differentiated policies by the company had an impact on inclusion or exclusion: those groups that specialized in the production of traditional products had to stop working with the company when sales to the El Salvadorean market were lost, because it was not profitable due to the distances involved to carry on working with such groups.

What can be highlighted about this period is that in the majority of cases, the participation of the groups and their continuity in the modernization process was more affected by the context of the groups themselves, i.e., cultural factors and members' mentality regarding change, rather than economic factors. In fact, the number of groups stayed relatively stable, with some leaving the system and others entering it. Most of the groups that dropped out during this period did so because of the company's demands (regarding quality, more work and regular deliveries) that nobody agreed with, and for prices that were not always the highest. Other companies worked in this sector and provided comparable services, but did not demand such a high quality of product. The competition such companies could have offered, or other similar projects, may have had an influence in continuing a relationship with Aj Ticonel. The groups that dropped out were the ones that were unable to understand the long-term vision of the company as regards quality and tracking, preferring to obtain similar advantages without investing in such a project.

Around two years ago OAT began to change its method of selecting groups, mainly because it needed more consistency as regards production volumes and quality; this was in order to meet the requirements of clients and cover the more significant costs of modernization (certification). The company started to terminate its relationship

with some groups, and the entry of new groups became more difficult as it sought to regulate the productive base of the enterprise.

Selection is now carried out according to:

- The loyalty level of groups and their motivation to work all year round with the company (continuous sowing, staggered cultivation), regarding groups located in more remote areas in general;
- The motivation level to invest in technology in order to meet quality requirements (irrigation, reaching the quality standards established by the client);
- The motivation level of producers to specialize in one or two products, and forfeit a greater diversification of crops, in order to guarantee greater delivery volumes and product tracking;

This means that selection is also made on the basis of factors such as the ownership of land, which implies the possibility and interest to invest, grouping together of farmsteads to allow certification, and access to water to maintain year-round production.

This certification process is gradually selecting those groups better able to continue under the most demanding norms. Due to the demands of competitiveness, the company needs to stop working with those groups that have the most precarious production, whether due to a lack of motivation, or their basic production (in)capacity. This means that in spite of the company's policy to attempt to include small producers with limited resources, it now has to select some groups, and stop working with others that are in a more precarious and vulnerable state. Such producers still have some alternatives on the national market, albeit at lower prices; however, if the quality demands of the market increase, such producers are likely to become the most vulnerable. The company is therefore making a responsible effort to analyse what production alternatives such producers can adopt, taking into account their vulnerability.

## **5 Access of small producers to dynamic markets: costs and benefits**

Costs and benefits can be analysed at various levels of the chain: at the level of producers, at the level of the trading company, and in general in the chain.

## 5.1 Costs and benefits for the producers

### 5.1.1 Comparison between traditional and non-traditional products

As the producers who work with Aj Ticonel receive the same prices for the products that are sold on the national market or exported, the different markets and their distinct characteristics have no impact on either producers or their income.

Additionally, the groups and producers that work with the company are very different among themselves, located in different areas and with different crops, and as they change so frequently, it would appear more significant to analyse the differences in production costs between the products that such producers may have grown before and those they cultivate now, according to surface area unit (in Guatemala, land is measured in 'manzanas' (MZ), 1 MZ equivalent to 0.71 ha.).

In the following table, the costs and benefits of traditional and non-traditional products per area are presented (details regarding the calculations of these costs and benefits can be found in [annex 5 to 10](#)).

**Table 2: comparison of costs, income and profitability per 'manzana' (0,71 ha) between traditional and non-traditional products.**

Product	Costs (without labour)	Income	Profit	Profitability (%)
Corn	5696	4,500	-1196	-21.00%
Beans	5088	8,000	3,088	61.00%
Courgettes	7699	25245	17546	227.90%
French beans	6566	18360	11794.5	179.64%
Chinese peas	6721	15708	8987.4	133.73%

Own elaboration based on interviews with producers, June 2006.

The incomes in these tables are based on average prices paid to producers for non-traditional products, and purchase prices of traditional products.

In general, producers that now work with Aj Ticonel previously cultivated corn, beans and other traditional crops. When they began to work with the company, they would set aside on average 30 per cent of their arable land for the production of corn and beans for family consumption, and use the rest of the land for non-traditional vegetables. This was a policy of product diversification, maintaining food security, which was guided by the company itself.

In the above table, we can see that the profitability of the non-traditional products is significantly higher per growing cycle when compared to beans, and that corn generates no profits at all. However, an even more significant difference is that in one area, three growing cycles can be made per year with non-traditional vegetables (4 months each), but only one for corn (9 months).

For those producers who have very small areas to cultivate, being able to make their surface area more profitable is a great advantage.

Costs are calculated without including labour costs because the work of cultivating corn and beans is normally carried out by the families, and the non-traditional products produced for Aj Ticonel are cultivated on a staggered basis (1 cycle has 4 areas in different stages of cultivation), in order to ensure a regular production flow, which allows the majority of producers to essentially use their own labour, and so be able to produce such vegetables without having to pay non-family labour costs.

### 5.1.2 Comparison between Aj Ticonel producers and independent producers

In order to measure the costs and benefits for producers of working with Aj Ticonel, a comparison was made between producers who sell to the company and producers who sell to other companies and intermediaries.

At a sales level, the biggest difference exists in purchase price discrepancies. Producers who work for Aj Ticonel are always going to receive higher prices than the normal market price, and prices may fluctuate or be fixed (fixed prices are higher so that they favour those producers who sell all year round).

**Table 3: Different prices of non-traditional vegetables according to the type of producer**

Product	Intermediary		Aj Ticonel
French bean	1.75	Fixed price	2.60
		Fluctuating price (average for 2006)	2.25
Chinese pea	2	Fixed price	2.75
		Fluctuating price (average 2006)	2.4
Courgettes	2	Fixed price	3.25
		Fluctuating price (average 2006)	2.75

Own elaboration based on interviews with companies, intermediaries and producers, June 2006

In the following table, we can see at a costs benefit level a comparison between different types of producer

**Table 4: Costs and benefits of the different products developed by Aj Ticonel for the different types of producer**

Products	Results	Independent producers	Ticonel producers with a fluctuating price	Ticonel producers with a fixed price
<b>Courgettes</b>	Costs with lab.	14725	17529	17529
	Costs without lab.	6415	8469	8469
	Prices	200	275	325
	Yield (qq)	80	108	108
	Paid volume	80	92	92
	Income	16000	25245	29835
	Profit (with lab.)	1275	7716	12306
	Profit (without lab.)	9585	16776	21366
	Profitability (with lab.)	8.7%	44.0%	70.2%
	Profitability (without lab)	149.4%	198.1%	252.3%
<b>French beans</b>	Costs with lab.	14784	18382	18382
	Costs without lab.	4374	7222	7222
	Prices	175	225	260
	Yield (qq)	72	96	96
	Paid volume	72	82	82
	Income	12600	18360	21216
	Profit (with lab.)	-2184	-22	2834
	Profit (without lab.)	8226	11138	13994
	Profitability (with lab.)	-14.8%	-0.1%	15.4%
	Profitability (without lab)	188.1%	154.2%	193.8%
<b>Chinese peas</b>	Costs with lab.	16690	19951	19951
	Costs without lab.	4755	6721	6721
	Prices	200	240	275
	Yield (qq)	60	77	77
	Paid volume	60	65	65
	Income	12000	15708	17999
	Profit (with lab.)	-4690	-4243	-1952
	Profit (without lab.)	7245	8987	11278
	Profitability (with lab.)	-28.1%	-21.3%	-9.8%
	Profitability (without lab)	152.4%	133.7%	167.8%

What we can see in the above table is first that the profitability per product is higher for producers working for Aj Ticonel (and even more so for those producers receiving a fixed price). This can be explained by the superior prices that the producers receive, but also because of their improved yields, even taking into account rejection losses of 15 per cent (due to quality requirements).

We can see that Aj Ticonel producers have more demands placed on them but also have greater profitability. Additionally, these results are calculated by one 'manzana' (0.71 ha) for each cycle, and in general Aj Ticonel producers are going to attain 3 growing cycles in a year, against 2 for independent producers. This is due to the fact that Ticonel producers have a purchase guarantee for their crops thanks to the cultivation plan, which allows them to invest in 3 growing cycles without any risk. The other producers are going to find it more difficult to finance 2 growing cycles, and such investments are not guaranteed. This difference in the number of cycles is also explained by the differences in equipment: most independent producers have no irrigation facilities and are only able to produce crops in periods of wetness (winter), which is when prices are lowest.

Lastly, as we saw before, Aj Ticonel producers cultivate their land on a staggered basis, so saving on labour costs that most independent producers have to pay.

Changes at the level of rural work exist, because GAPs are very demanding as regards cleaning work and product care. Such changes can be combined with the time gained in transport and labour saved in harvesting work. At present, promotion and financing is taking place to promote the use of Mulch (a protective plastic cover placed over the furrow), which apart from reducing labour needed for weeding, also increases yield and improves the final quality of the products by avoiding soil splashes on the vegetables.

These different costs and benefits can also be explained by the different relations that exist between producers and the different types of buyers (see [annex 11](#)). Producers for Aj Ticonel mainly enjoy advantages thanks to the security of their relationship with the company. They are not responsible for costs incurred after they deliver their produce. They therefore have a secure purchase, payment, credit facilities and short-term income. The only advantage that exists for those selling to intermediary wholesalers, according to such (independent) producers, is the immediate payment they receive. However, if producers accept the need to invest in quality (good agricultural practices, with different work times, strict rules, etc.), they are going to enjoy a much more secure income.

Additionally, as we are going to see further on, most GAP costs are paid by the company, and the costs for installing an irrigation system are financed by long-term credit loans, in order to assist those farmers who wish to invest in such infrastructure and produce throughout the year.

### **5.1.3 Changes for producers caused by demanding markets**

The main changes for producers who sell their produce to the company for exports (local supermarkets do not have an impact at production level), is at the level of

work organization and production quality. This is not always well accepted by producers. However, for those who do accept such conditions, the benefits are to maintain a direct relationship with the company, a guaranteed purchase and payment (particularly if they specialize and produce all year round), and even in conditions of extreme losses, long-term production and income security with the company. At home level, it was not possible to calculate the changes made, although producers in general do have much more capital to invest in their family or to consume, due to their secure income and credit access, which frees them from investing their profit margins in new cultivating cycles.

## **5.2 Changes at the level of producer organizations**

For the groups, there is a time cost involved in the construction of the groups' collection depot and the weekly work coordination meetings. The costs that the groups need to pay are part of the investments made at group-level, such as labour, sand and wood for the collection depots. However, the other costs (transport, technical support, etc.) are financed by the company.

## **5.3 Changes at trading company level**

The main costs incurred by the company are the product packaging costs, and above all the GAP and GMP costs, and certification of producer groups.

Packaging costs (see [annex 12](#)) are different for products sold in bulk or those that are pre-packaged. The pre-packaged products have a higher cost, and also need installations. However, these products are sold all year round on a regular basis and at a fixed price (with a profit margin for the company after paying transport costs of USD 0.25 per tray), which is a lot more convenient for the company as it has to pay for the products regularly. Those products sold in bulk incur less costs in the processing plant, although prices may change so much throughout a year that the company may make a loss exporting a given product, and at other times make more profit than it does with the pre-packaged goods.

This is why the company now wants to develop more the pre-packaged products, so it can secure improved sales and income, and cover the high costs of airfreight.

In total, as we can see in [annex 13](#), the costs of different installations were high, GTQ 1.350.000.00 paid for by the company (the new facilities or extension of those already existing, were financed by foreign loans).

As regards the area of the company's quality strategy, all the costs of GMP, certification, and most of the costs of GAP are being paid for by Aj Ticonel. For the last four years, when they began to develop this aspect of tracking, they incurred multiple costs:

- The GAP implemented by producers have an annual cost of GTQ 5.215, of which GTQ is covered by the producers themselves.
- The GMP in the packing plant have an annual cost of GTQ 113.656 (including equipment, staff material and training).
- Certification of the groups (10 at present) and of the processing plant, has an annual cost of GTQ 55.500

These costs are being covered by the company, in order to access high demanding markets, with greater standards but also higher prices, in order to ensure and maintain the income of producers. For the direct GAP investments of producers, a special fund has been obtained to provide these resources through a subsidy or conditional donation (sanitary installations in the fields, minimal equipment for maintaining crops and harvesting, training and GAP instruction).

This changes the needs of the company at capital investment level: it has increased requirements, which it now covers with donations or foreign loans (credit facilities), but is trying to self-finance by eliminating the surcharges paid to producers two years ago, for example.

The most interesting area of growth for the company is the pre-packaged market for supermarkets, as it would allow them to incorporate added value, have more stable orders, programming deliveries on a weekly or monthly basis and not daily, as is the case with the 5 and 10lb box wholesale market. Additionally, the fixed prices of such a market would allow more secure negotiations with producers based on a pre-established retail price.

#### **5.4 At chain level**

One characteristic of the mini-vegetable and peas market is that, as it is essentially geared towards foreign markets, it is positively and negatively affected by fluctuations in international prices. These fluctuations are reflected in the internal prices paid by the company to producers. Consequently, producers may significantly increase their income if they are able to combine their sales with a price hike on the international market for some particular circumstance. In such cases they may obtain up to USD 1.4 per pound more in the case of mini-vegetables and up to USD 1 per case for peas. In such cases, the companies making the offer set aside reserves to cover costs and profit margins in order to establish the price to be paid to the producers.

In general, the risks involved in obtaining the final sales price, due to problems of quality, handling, logistics and market saturation, are assumed by companies. This is because they are paid 30 to 60 days after shipping the goods, and by then the producers have received their payments.

When markets lower their prices, companies transfer them to the producers, who may even receive prices that are lower than production costs. In such cases, the producers are the losers. If the market becomes saturated, the companies stop buying and the producers lose out, as they have no one who will buy their produce. Moreover, such produce cannot be off-loaded onto the national market, as there is no demand for it.

These last two situations are different in the case of producers working with Aj Ticonel, because when there are very low market prices, the company subsidizes the payment to producers, and at least covers their costs and does not abandon their plantations. The company knows that as soon as the other independent producers abandon their crops due to the lack of an offer price or market, prices will begin to rise again because of product shortages.

Additionally, the producers of Aj Ticonel are protected from a drop in demand, as the company, by programming production, makes a commitment to pay for the products even though they may not be sold; this is not the case of independent producers, or those who work for other companies.

## **6 Lessons learned**

### **6.1 In organization, production and marketing**

In this case study of the innovative work undertaken by **OPCION/Aj Ticonel**, we can see that right from the beginning, the company has been searching for production and sales alternatives using offensive innovative strategies and a vision of the future which, up till now, has been able to anticipate major changes in the market and maintain an outlook perspective that motivates both the company's staff and producers. This is why the changes that have been made throughout its history, have allowed it to maintain its position in a competitive and unstable market, and so guarantee an income for its producers.

The strategy to adapt right from the beginning to the most demanding markets, has allowed it to appreciate the quality product at its disposal, with a very long-term vision of the future. This is certainly going to favour the enterprise in the coming years, with high requirement levels becoming the norm for exports.

At national level, perspectives for the company to increase its participation in the supply of local supermarkets, does seem limited. Supermarket policies are still focused on having various dedicated suppliers, with low quality requirements, so making the investments made by the company in product quality level unprofitable. However, the changes taking place in Guatemala's supermarkets (the purchase by Wal-Mart) may perhaps favour the company, if Wal-Mart applies the same standards in Guatemala that it uses in other countries.

The company is still searching for solutions for the major problems it has in production planning and producer loyalty, and sales planning related to its most stable and long-lasting clients.

### **6.2 Regarding the experience of small producers to successfully insert themselves in highly competitive markets**

The producers that Aj Ticonel Works with are small producers who generally do not have many production alternatives. In this sense, the innovative processes developed by the company have led to the inclusion of these producers in dynamic markets where access is difficult, particularly when they do not have the support of such marketing intermediaries.

This has also led to the development of negotiating skills on the part of producer groups with the trading company, which has been made possible by the company's

policy of transferring to producers knowledge regarding the market and its demands.

However, producers are still just a link in the chain, and up until now, the modernization work undertaken by the company has not allowed them to increase their participation in chain management. Aj Ticonel and OPCION are working on these aspects, searching for ways to involve the producers in the definition of strategies, through their participation as company shareholders. This will perhaps allow producers to acquire knowledge and skills that are more adapted to market competitiveness, acquiring a broader vision of this market, so helping them to take a more active part in the search for solutions to production and sales problems. The question in the future will be whether the producers and the company will be able to adapt to this new working relationship, or whether this change in chain management will have a positive or negative impact on producers.

## Regoverning Markets

Regoverning Markets is a multi-partner collaborative research programme analysing the growing concentration in the processing and retail sectors of national and regional agrifood systems and its impacts on rural livelihoods and communities in middle- and low-income countries. The aim of the programme is to provide strategic advice and guidance to the public sector, agrifood chain actors, civil society organizations and development agencies on approaches that can anticipate and manage the impacts of the dynamic changes in local and regional markets. The programme is funded by the UK Department for International Development (DFID), the International Development Research Centre (IDRC), ICCO, Cordaid, the Canadian International Development Agency (CIDA), and the US Agency for International Development (USAID).

## Innovative Practice

Innovative Practice is a series of case studies from the Regoverning Markets programme providing examples of specific innovation in connecting small-scale producers with dynamic markets at local or regional level. Based on significant fieldwork activities, the studies focus on four drivers of innovation: public policy principles, private business models, collective action strategies by small-scale farmers, and intervention strategies and methods of development agencies. The studies highlight policy lessons and suggest working methods to guide public and private actors.

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