

Public & Private Roles in Promoting Small Farmers' Access to Non-traditional Markets:

Case Studies from Central America

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Abstract

This paper investigates public and private roles in promoting small farmers' access, competitiveness, sustainability, and benefits of selling to supermarkets, using case studies from Guatemala and Nicaragua. It addresses the impediments to inclusion of small farmers in supermarket channels, the necessary conditions for sustained participation, and the potential roles of public and private agencies in promoting small farmer participation in these markets. The required investments needed to enable small farmers to accrue the benefits of selling to supermarkets are analyzed at three levels, the market-level, supplier-buyer and supplier-supplier. The appropriate public role in promoting inclusion and participation of small farmers is to promote the generation of infrastructure (market level) and capital (firm level) that alleviates the capital, information, and risk constraints that cause "market failure" and impede small farmers' participation in these markets. Also, development programs and agencies focused on helping small growers access markets should not 'circumvent' initial efforts related with capacity building and human and social capital strengthening, which is a precondition for sustained success of participating in these markets. In addition, enhancing the benefits of small farmers' inclusion can be achieved by promoting the "public" aspects of some capital goods or services that otherwise might be private (such as finance, education, etc.) to reduce the asset specificity of the relationships.

Keywords: markets, supermarkets, small farmers, public & private roles

1. Introduction and Problem Statement

Non-traditional markets, particularly supermarkets, are increasingly dominant players in agrifood markets worldwide (Reardon 2003). In Latin America, for example, the supermarket volume of trade in fruits and vegetables is 2-3 times the export volume (Reardon and Berdegúe 2002). In Central American countries, supermarkets accounted between 30% and 50% of all food sales in 2000 (Reardon and Timer 2005).

As supermarkets and other non-traditional markets have expanded their operations in developing countries, they have tended to face constraints in their procurement of perishables, such as fresh produce, dairy and meats; raising the cost of merchandise provided to their customers. These constraints include inconsistent quality, food safety problems, and costly logistics, and are largely a result of the limited capacity of traditional wholesalers and domestic farmers (the majority of whom are small and resource poor) to make the investments necessary to meet these requirements. Addressing these limitations is an important concern then, both for private actors, such as supermarkets, wholesalers and small farmers, who respond to profit motives; and public actors, such as government and development agencies, which are interested in involving small farmers in dynamic agri-food markets for their contribution to poverty alleviation and rural economic development.

Small farmers are the most limited in their capacity to respond to the new product and service requirements put forward by supermarkets and other non-traditional markets. Responding to these requirements necessitates considerable investment in capital, organizational and managerial resources (for example, see Berdegué, 2001). Also, if sustained access to markets is to be achieved, a cultural change is required in which buyers and sellers are seen as partners (to some extent) with whom an ongoing relationship is to be developed, rather than as competitors for a fixed-size pie or temporary partners in a short term exchange relationship. It can also require changes to relationships among producers themselves, as collective action is one important way that many small farmers seek to undertake the large investments necessary to compete in non-traditional market channels. Although examples exist where farmers have been able to gain and maintain access in the dynamic markets without public intervention (Mainville, Luz et al. 2003; Mainville and Peterson 2005), it is broadly recognized that some degree of government and/or non-governmental organization (NGO) assistance greatly increases the probability of successful participation in these markets for small farmers (Reardon and Berdegué 2002).

While the importance of public involvement is apparent and accepted, perceptions about the appropriate nature of this involvement are continually evolving. A range of models of public involvement aimed at enhancing small farmer access to markets exists, yet the effectiveness and tradeoffs among these models have not been comprehensively discussed. This paper seeks to contribute to filling that gap, by developing hypotheses about appropriate and effective public and private roles in promoting sustained access of small farmers to supermarket channels. In this context, the term “public” refers to those actors, such as government or NGOs, whose objectives are aligned with enhancing public welfare and/or development outcomes. “Private,” in contrast, is used to refer to those actors who are presumed to respond primarily to profit incentives.

After determining a) the impediments that exist to inclusion of small farmers in supermarket channels, b) the necessary conditions for sustained participation, and c) the potential roles of public and private agencies in promoting small farmer participation in these markets, the paper explores hypotheses about the utility of these roles for promoting farmers’ access, competitiveness, sustainability, and benefits, using case studies from producer associations selling to large retailers in Guatemala and Nicaragua, two Central American countries in which supermarkets are playing an increasingly important role.

2. Background: Small Farmers & Supermarkets in Developing Countries

The emergence of supermarkets as dominant players in developing country (as well as more-developed country) economies has altered the paradigm in which these countries experience economic development. Until recently, a dual market model has existed in which few producers participate in relatively lucrative export markets or domestic contract arrangements, and the remainder market to traditional domestic markets with relatively low potential returns. The rise of supermarkets in developing countries, and their rapid growth and capture of significant market share meant not only

that potentially lucrative markets have grown in size, but they also had carryover effects for traditional domestic markets, eroding their share of the markets. For producers in these countries, this has implied that access to supermarket-markets offers the potential to improve their livelihoods, but also that it stands for survival too, as the traditional markets decline.

Supermarkets have revolutionized the domestic market environment, driving a shift from product-driven marketing chains dominated by traditional wholesale market; to demand-driven marketing chains where supermarkets are the dominant players interpreting consumer demand signals and translating them, along with their own logistical requirements, into new ways of managing their supply chains. Supermarkets can be conceived as designing their supply chains to minimize the cost of sourcing and supplying the volumes, varieties and quality of product that their customers seek. Reardon et. al. (Reardon and Berdegué 2002; Reardon 2003) point to four “pillars” of supermarket procurement systems, these being 1) purchases direct from specialized intermediaries or producers with product moving direct to 2) highly modern centralized purchase and distribution centers that are proprietary to the specific supermarket chains; with these product movements and transactions being governed by 3) formal or informal contracts with suppliers, and 4) private grades and standards that generally are much more stringent than the public grades and standards that they replace (Mainville et al 2005, Kindleberger 1983, Dimitri and Krissoff 2000, Reardon and Farina 2001, and Balsevich et al 2003).

Given these push-pull forces, the access of developing country producers, particularly small farmers, to supermarket-markets has been the focus of considerable attention (Reardon and Timmer 2005, Reardon and Berdegué 2002, Schwentesius and Gómez 2002, and Boselie et. al. 2003). Small producers are felt to have comparative advantage in some agricultural product sectors—particularly small volume and high value niche markets, as well as markets for perishable commodities such as fruits and vegetables. The high labor intensity required by many of these products, as well as limitations in their trade infrastructure (such as institutional infrastructure including grades and standards and physical infrastructure such as cold chains) is felt to match well with the typically high labor and managerial intensity of small farmers’ operations.

Despite having some competitive advantages, small farmers also face constraints particularly with respect to 1) access to capital, broadly defined to include finance, physical/technological, organizational, and managerial, and 2) high transaction costs faced by supermarkets in dealing with many small farmers. These can impede farmers’ access, competitiveness, sustainability and benefits in non-traditional markets such as supermarkets. For small farmers to overcome these constraints, they must meet the necessary conditions for market access and sustainability include 1) incentive (output prices relative to input costs, risk) and 2) capacity, including capital, competitiveness (considering cost and quality), and circumstances (Boselie et al. 2003).

For small farmers to be able to compete in non-traditional markets such as the supermarket-market, adequate conditions must exist on three levels—the market level,

between farmers and buyers, and at the farmer level— and all three levels may be the site of public or private investment to ensure that these conditions exist.

At the market level, there need to be adequate institutions, for example grades and standards, codes of conduct, property rights and contract enforcement, to support market exchange. If these are lacking at the market level, then their absence can either impede the functioning of the market (causing market failure) or lead to the creation of private arrangements supporting the same functions between buyers and suppliers. There also needs to be adequate physical infrastructure, such as roads, bridges and communications, otherwise trade may be too costly for small farmers to be involved in the market. Finally, the market benefits from the provision of services such as food safety testing labs and food safety certification (Sporleder and Kramer 1983, Holleran and Bredahl 1999), as well as research and development (Morales 1998). Again, in the absence of these services at the market level, firms can invest in them, but will tend to do so only to the extent that they can reap the benefits of their investment which often means that they will be reserved for proprietary use, limiting the diffusion of benefits from their development.

At the farmer-buyer level, the necessary conditions for successful participation of the small farmer in the supermarket-market relates to the ability for the small farmer to identify appropriate buyers, negotiate agreements and contracts, and respond to quality, service, and logistical demands. Again, if the traditionally-market level conditions are absent or weak, then they may be created at the farmer-buyer level for the firms' proprietary use.

Finally, at the farmer level, there are many requirements to enable or facilitate small farmers' participation in the supermarket-market. These include capacity in terms of both physical facilities (equipment, machinery, land, transport); human capital including managerial ability, business skills, quality control; access to finance (Poulton et al 1998); and labor availability. Given that many small farmers have limited access to resources, a common means of enabling them to access non-traditional markets has been the formation of horizontal marketing arrangements such as farmer associations or cooperatives, which rely on collective action arrangements to enable small farmers to access higher-value markets. The formation of such associations, while often a solution to many constraints in themselves, also requires physical, financial, human and social capital if they are to be successful.

3. Conceptual Framework: Public & Private Roles

Public involvement in markets can be conceived as aimed at maximizing welfare of economic actors by increasing the overall efficiency of the market (which can be conceived to be complementary to the supermarkets' efforts) and/or by enhancing the ability of small farmers in particular to produce for and benefit from producing for high-value markets.

In an economic environment that meets the neoclassical perfectly competitive market assumptions market outcomes reflect an efficient use of resources and Pareto

Efficiency (transactions that could not make any individual better off without detracting from the welfare of any other).

Public involvement in markets is argued on grounds of alleviating market failures (Caswell 1997) and promoting social objectives such as reducing poverty or altering the distribution of income and/or wealth. Market failure refers to situations where institutional shortcomings, transaction costs, increasing returns to scale (leading to “natural monopoly” conditions and potential market power), network economies (benefits increase as number of adopters increases), non-excludability/high exclusion costs making it hard to justify private investment, and risk derived from asset specificity, preclude economically-efficient economic outcomes. The impediments to the inclusion of small farmers in supermarket channels and the necessary conditions for sustained participation in these markets relate to issues of market failure, and public involvement in the marketing chain can be seen as working primarily to resolve these issues, which directly enhances market efficiency reducing supermarkets’ costs.

Public intervention into markets is also driven by social objectives aiming at poverty alleviation through the integration of farmers into the market economy and the re-distribution of wealth or income through public investments and price interventions. Finally, it should be noted that interdependence between market failure/efficiency and social objectives exists. As an example, the failure to alleviate market failures that increase risk in the market can lead supermarkets to seek arrangements that compensate for that risk, for example, strictly specified contracts relations with suppliers. These can narrow the possibilities for other actors to sell to the supermarkets relative to what would exist in a less risky environment.

4. Methods

The analysis is based on case studies implemented in Nicaragua and Guatemala in 2004. The method used consisted in semi-structured interviews to different actors all along the marketing chain, from the supermarket to the grower in the field. Subsequently, information was cross-checked by asking similar questions of diverse participants in the projects, such as buyers and suppliers, whose responses would be guided by different perspectives and motivations. Secondary information was also collected from each of the organizations. In the Nicaragua case, feedback from these interviews was complemented with information from a survey of 145 growers representing farmers who were participants in the case cooperative, as well as those who were not, to provide a basis for comparison.

5. Introduction to case studies

5.1 Cooperative of Production and Marketing—COOPROCOM, Nicaragua

The case study focuses on the relationship between COOPROCOM and Hortifruti in Nicaragua. Hortifruti is a specialized wholesaler responsible for supplying high-quality

fruits and vegetables to CSU, the main supermarket chain in Costa Rica and Nicaragua, of which Hortifruti is a subsidiary.

COOPROCOM was established in 2003 through a WINROCK International project funded by USAID. The project was based on an agreement between USAID and Hortifruti that Hortifruti would purchase products from all the projects funded by USAID. Winrock made initial contact with Hortifruti to identify the product required by the supermarket. Through this contact, the decision was made to orient the cooperative to the production of roma tomato (a commodity tomato for fresh consumption) to Hortifruti.

The cooperative made its first delivery to Hortifruti in June 2003, with 22 members participating in the cooperative. Over the next year, three non-governmental organizations (WINROCK, Partnerships for Food Industry Development (PFID), and Technoserve) were involved in promoting the access, competitiveness, sustainability and benefits of the cooperative in selling to Hortifruti. Each of these NGOs had different (though compatible) objectives—Winrock’s objectives were to provide market access to small poor farmers, PFID’s were to promote competitiveness and sustainability, and Technoserve’s were to promote the competitiveness of farmers selling to Hortifruti.

5.1.1 Requirements for sales to the supermarket-market

In order for the cooperative to sell to Hortifruti, it had to comply with specific quality standards and contractual requirements. The quality grades established by Hortifruti include aspects such as appearance, maturity, size, defects, and packaging. Hortifruti also requires suppliers to adhere to a regular delivery schedule (three times a week) of specific volumes of product. Volume requirements were such that the cooperative’s growers had to double their production in order to ensure an adequate supply of first-quality produce for Hortifruti (seconds were sold to the local wholesale market).

At the time of the case research, Hortifruti was implementing a risk management system focused on food safety. This required that suppliers follow Good Agricultural Practices (GAPs) and Good Manufacturing Practices (GMPs). The implementation of this risk management program was initiated in Costa Rica (where Hortifruti bases its operations) and had not yet been officially implemented in Nicaragua at the time of the research; nevertheless Hortifruti did have some standards that laid the foundation for implementation of such a risk management system. These included the requirement that the tomatoes be delivered in plastic crates, documentation of pesticides applications, and water analyses.

5.1.2 Public & private roles in promoting sales to the supermarket-market

There were no general, market-level investments put into place by either public or private actors to facilitate the success of the cooperative. At the farmer-buyer level, however, there were numerous public activities, some of which were then assumed by private actors, particularly those in the cooperative. As previously mentioned, the NGO

Winrock was responsible for the identification of the market opportunity, and for laying the groundwork for an agreement between the cooperative and Hortifruti, with the USAID-Hortifruti agreement (that Hortifruti would buy produce from USAID projects) serving as a key underlying condition permitting this. The terms of the sales agreements were also initially its responsibility with the objective of ensuring that the farmers were treated fairly. Five months after the cooperative made its first sales to Hortifruti, however, the cooperative's administration took over the task of negotiating price and other terms.

At the farmer level, the NGO Winrock took the lead in organizing the 22 farmers into a cooperative, and provided training on cooperative issues to these farmers. Technoserve provided technical assistance and training with support from Hortifruti, which made technical field-level recommendations regarding chemical applications and other issues directly relating to the production of the quality and quantity of produce they needed. Technoserve was also directly involved in the administration of the cooperative, and took care of accounting, paying growers, and other administrative functions.

Finance was provided through Winrock, which made available about US\$20,500 for initial investments. Approximately US\$10,190 of this amount was deposited into a revolving fund to provide working capital to the cooperative's producers. The producers used it for credits which were discounted when their production was sold, and considered a monthly 24% interest to cover staff expenses and fund capitalization, although the fund stayed almost unchanged during six months. The NGO PFID invested between US\$2000 and US\$2500 per month for operating expenses, including technical assistance provided by Technoserve. Initially, PFID and Hortifruti shared the cost of transport of the tomato, however this cost was later made the responsibility of the cooperative (though without any increase in price to cover the additional costs). Finally, PFID provided a grant for the construction of a packing house where the tomatoes were collected, graded and packed.

From the initial Winrock donation, some was invested on irrigation, seedlings, greenhouses, and a warehouse to store supplies. In addition, the revolving fund allowed the cooperative members to invest in variable inputs such as crop protection chemicals and fertilizers. The cooperative also paid to hire staff such as a field worker, a watchman, labor to grade the tomatoes, and a delivery driver.

5.1.3 Performance of public/private initiatives

5.1.3.1 Access

The public initiatives were clearly instrumental in allowing the small farmers to gain access to the supermarket-market. Chief among these investments were the provision of financial and administrative support for the establishment of the cooperative and for initial investments needed to enable the farmers to meet Hortifruti's quality, service and logistical requirements.

5.1.3.2 Competitiveness

The competitiveness of the cooperative is manifested by the fact that Hortifruti was assured a consistent supply of high quality produce, at costs significantly lower (61%) than the local wholesale market. Previous to contracting with the cooperative, Hortifruti purchased from several growers as well as other intermediaries, but had higher administrative costs of dealing with them rather than with the centralized administration of the cooperative, and also had to provide some logistical support to the contracted growers, namely picking their product up in the field. By December 2003, the cooperative held 44% of the supermarket-market share.

5.1.3.3 Sustainability

Indications about the sustainability of the cooperative were mixed. Initially, the cooperative was dependent on the various NGOs that were involved for the provision of services, administrative support, contract negotiation and other key activities. The cooperative had a weak organizational structure, and limited social and human capital, and its capacity to take on these functions was questionable. As the NGOs divested responsibility for these activities (such as negotiation, delivery schedules, and hiring of employees) to the cooperative, the cooperative became more empowered though there was also an impact on the organization's stability, and one member of the cooperative took responsibility for much of the responsibility.

The administration of the cooperative also threatened sustainability in that it presented members with adverse incentives. For example, product rejections were equally discounted from members who had delivered their production to Hortifruti. The cooperative had set no penalties for the members who failed to comply with quality and delivery requirements. Also, there was an incentive for growers to sell to intermediaries in order to avoid reimbursing the credit debt owed to the cooperative. Defaulting growers still got additional credits and no penalties were applied, which meant further encouraging non-payment behavior. The incentive to sell to the traditional market was augmented by the fact that it paid cash the same day, compared to Hortifruti which paid within eight days from the delivery date, and the cooperative paid in approximately 15 days to its members.

5.1.3.4 Benefits

Analysis of the benefits of selling to Hortifruti relies on comparison of their next best available market—the traditional wholesale market. In comparison to sales to the traditional market, the cooperative, price stability increased. Since the cooperative took over price negotiation from Winrock, the prices that Hortifruti pays them have increased, however they are at most 14% higher than the price paid by the local market, and the level of quality and services is much higher than what is required in the local market. Benefits were also seen to the larger community, largely in the form of the generation of permanent employment in the community.

Finally, the cooperative began to sell its production of Roma tomato to AGROLEMPA (Asociación Agropecuaria de Productores del Sur del Bajo Lempa R.L.) in El Salvador, which increased their bargaining power.

5.2 Association of Small-Sized Irrigation Users of Palencia—ASUMPAL, Guatemala

5.2.1 Introduction to case

The case study focuses on the relationship between ASUMPAL and Hortifruti in Nicaragua. ASUMPAL was established following the initiative of the Ministry of Agriculture and Livestock (MAGA). The Ministry sought to support the revival of the agricultural sector, and to this end, offered technical and financial assistance to NGOs, cooperatives and other organizations for training activities and irrigation infrastructure that were conceived to be needed to increase agricultural productivity. In the case of ASUMPAL, it was anticipated that the provision of this support would promote farmers' access to and competitiveness in high-value markets such as supermarkets.

The initiative gathered the members of four irrigation associations, each comprised of small farmers producing diverse agricultural products. Prior to the project, each of these associations' members sold their produce on an individual basis to wholesale intermediaries at Guatemala City's wholesale market. The association was formed to enable sales of numerous products to demanding buyers, including high-quality "salad" tomatoes produced under greenhouse which were ultimately their most profitable item. The primary motivation for the formation of the group was the gradual reduction of their irrigation flow rates and the need to assure access to water sources. Other motivations underlying the formation of the association were the access to improved irrigation systems, to fertilizers then provided by the government to organized groups, and to infrastructure detailed below, all of which were facilitated by participation in the Ministry of Agriculture's program.

The association was legally established in 1997 and the official membership list was comprised of 350 growers. Public and private partners in the venture included the Ministry of Agriculture and Livestock (MAGA), Union Association of Non-Traditional Product Exporters (AGEXPRONT), the International Cooperation Center for Agricultural Pre-Investment (CIPREDA), Hortifruti (supermarket in Nicaragua), López Foods (McDonalds), La Fragua (supermarket), ECODISA (intermediary), INMERSA and FRUVEXPORT (today's clients).

The association started its operation with the construction of a packing house (through government support) in 1999, with 25 members actively involved. The 25 growers began marketing their products as an association, gaining access to highly demanding markets, like supermarket suppliers La Fragua and Hortifruti, and López Foods which was a supplier to McDonald's.

5.2.2 Requirements

Both Hortifruti and López Foods had private quality standards for produce purchased from their suppliers. The quality standards grade products on the basis of the product's appearance, maturity, size, presence of defect, and packaging. Furthermore, Hortifruti Nicaragua had a tolerance level of 2% on produce, if the share of produce that was rejected rose more than 2% then Hortifruti would not pay for the rejected portion of the produce. López Foods' requirements were more oriented to process standards and include the use of greenhouses, improved cultivation techniques, proper use of chemicals, water quality, product traceability, and compliance with external voluntary product standards. Both companies also established business and financial conditions to be met by their suppliers.

5.2.3 Investments implied by requirements

As in the Nicaragua case, neither the public nor private actors took action at the market level. In the case of ASUMPAL, the public agencies were highly active in the maintenance of a productive relationship between ASUMPAL and its buyers. From 1999 to 2002, AGEXPRONT played a central role in the formation of business contacts and price negotiation between the association and its buyers. The NGO was also active in helping to resolve disputes between the association and its buyers. These public activities were also complemented by activities on the part of the farmers and buyers. For example, between 1999 and 2002 AGEXPRONT was responsible for solving several disputes between the association and both Hortifruti and López Foods. For example, they helped to negotiate when there were weight differences between the products shipped and those received by Hortifruti, problems in meeting the volumes scheduled, and rejections. At the same time, Hortifruti Nicaragua's Sales Manager and ASUMPAL's representatives visited each other to verify the amounts of product rejected and the volumes received.

The government and the NGO were also highly active in providing resources and fixed investments in the association to enable it to access the high-value markets and enhance its competitiveness. The government provided ASUMPAL with funds of US\$83,400, of which just over half was to be used for fixed investment and the remainder for working capital. The government also supplied a packing house that the association employed to grade and package the produce, and along with AGEXPRONT, provided technical assistance and training to the association, different aspects of which continued from 1999 to 2001. In addition, the government and CIPREDA formed an agreement in 1997 in which they agreed to be responsible for the project's financial management for a five year period.

In order for the association's members to participate in these markets, each grower had to show an investment capacity of US\$6,300 per year.

With respect to hauling costs, one of the principal buyers, Hortifruti Nicaragua, paid them, and also covered Nicaraguan value-added taxes which ranged from 12% to 15%.

5.2.4 Effects

5.2.4.1 Access

Out of 350 association members, only 25 took part in the sales to the high-value buyers outlined above. Furthermore, only 9 of the 25 growers jointly operating through the association's packing house met the requirement of having greenhouses to produce salad tomato, which was the most lucrative product sold by the association. This lack of investment capacity was the factor that most contributed to the low number of active associates.

5.2.4.2 Competitiveness

Ultimately, Hortifruti Nicaragua (and other high-value buyers) perceived the relationship not to be profitable. This was because of product rejections and, in the case of the supermarket, also because they paid for the freight and taxes. This problem was replicated with their other more demanding, high-value buyers. In the end, ASUMPAL was unable to compete sufficiently to maintain their marketing relations due to problems with non-compliance with the more demanding buyers' product quality, volume, and transaction requirements. Among the factors that influenced this was first, a lack of working capital because a larger portion (66%) of the government's initial funds were used for fixed investments than was originally intended, and because of the mismanagement of funds. The second major factor was inconsistent monitoring of individual members' activities and adverse incentives such as rejection costs being discounted from the association's sales rather than the revenues of responsible producers, because of inadequate financial capacity, and because of the occurrence of disease in the crop, presumably due to the lack of resources and professional advice. These factors led to a cessation of sales to Hortifruti Nicaragua from 1999 to 2001 when the association tried to resume sales to them again through an intermediary (but failed); they also led to the more capable producers to act out of the association's commitments because they were not seeing the rewards of their investments and were being hurt by other members' actions. The association also saw other losses because they lacked an adequate accounting administration and carried out no ordered recordkeeping. Finally they suffered a blow in mid-2000 during a conflict in the border between Honduras and Nicaragua, where Honduras closed the border with Nicaragua and two containers were lost on their way to Managua. This resulted in a loss of near US\$8,600.

5.2.4.3 Sustainability

The association was established on a top-down basis with little interest and effective involvement by its members. For example, some of them totally ignored that they were members of the association. In addition, 93% of the initial members withdrew the association before the production and marketing started, because of:

- Inactivity for a long time before starting the marketing initiative
- Long time periods to collect payments (15 days to a month) and product rejects

- Distance from the assembling center (many where far)
- The government stopped providing subsidy in form of fertilizers
- Lack of trust in the managers, which were too few for the rest of the members

The association only received initial public support which was not sustainable because they ended up selling their products to traditional markets as they individually originally did. For instance, the AGEXPRONT's agronomist who assisted them pointed out: "After AGEXPRONT left the association by the end of 2001, production and marketing activities stopped because the members did not learn how to carry them out on their own." Unsustainable production and businesses can undoubtedly be attributed to the paternal attitude showed by AGEXPRONT, which never allowed their organizational structure, or social or human capital to develop.

ASUMPAL had historically sold its products to diverse clients, failing to establish fairly sound business relationships for reasons already mentioned. In addition, the decapitalization of the association prevented it from continuing giving advance payments to members. This forced them to reduce their production, as they were unable to reach the volumes required. The result of the financial shortage was the loss of the business relation with the most demanding buyers. At present, the association continues to grow salad tomato, selling it to INMERSA and FRUVEXPORT. Quality requirements and marketing conditions established by these two companies are clearly more flexible and below the standards required by companies like Hortifruti and López Foods.

5.2.4.4 Benefits

With respect to the price, a fixed price was established by both, Hortifruti and López Foods, which was considered a good price as compared with the price paid by local markets. However, despite the fact that a good initial price was being paid by the buyers, the high rate of rejections and other problems led to losses that meant that the association was not profitable in its sales to the most demanding buyers such as Hortifruti Nicaragua.

The economic advantages of supplying to demanding markets are not clear. When ASUMPAL withdrew from the demanding markets and returned to the traditional ones, its net economic situation did not change, while the rules and requirements were reduced substantially. The investments that were made by the various publicly-motivated organizations did not result in clear effects in terms of market access, competitiveness, sustainability, or ultimately benefits to be accrued.

6. Conclusions

The results show how differing public and private roles in the case study markets contributed to the success/failure of the different producer groups. Valuable insight is offered into the larger question of how different public and private actors can help to promote a competitive and inclusive agri-food system.

The case in Nicaragua reveals the challenges that small producers face in complying with a demanding market, and the extensive support that enabled their success in the venture. Indeed, important investments in technology and entrepreneurial organization are required to enter and persist in a demanding market, although this market does not necessarily mean greater net income, considering the higher investment and production costs. The case in Guatemala, in contrast, suggested that without the underlying motivation on the part of direct participants in projects, no amount of investment can force success.

Due to developments in technology, institutions such as intellectual property rights, and firm strategies such as branding, there has been a shift in activities and investments that have conventionally been considered public goods toward them taking private good aspects (examples are R&D and food safety). Given this shift, intervention by public organizations should focus their activities on promoting the “public” good aspects of these products and services—that is, de-emphasizing their applicability to narrow situations (such as a single buyer-supplier relationships) rather than sustained capital acquisitions (in the form of acquired knowledge, infrastructure or capabilities that producers can apply to alternative buyers). That is, the public sector can focus efforts to help farmers work with one actor, for example, providing or promoting investments that are uniquely useful to a single relationship, or to make them generally more competitive, though these are not mutually exclusive. In other words, enhancing the benefits of small farmers’ inclusion can be achieved by promoting the “public” aspects of some capital goods or services that otherwise might be private (such as finance, education, etc.) to reduce the asset specificity of the relationships. Another form of such “asset specificity” is the public sector (e.g. NGO) providing services such as contract negotiation without transferring the learning to farmers, again tying them to the original buyer relationship if benefits are to be maintained. Interestingly, in addition to limiting farmers’ flexibility, such activities can actually be argued to provide a subsidy for the supermarkets! Indications toward this are provided in the Nicaragua case where Hortifruti saved 61% on its costs, while paying “lowball” prices to the cooperative. The lowest prices were the ones that the NGOs negotiated, but even when the cooperative itself took over the price negotiation function, prices were not significantly different from local market prices despite the much higher level of value and service that was being provided!

The appropriate public role in promoting inclusion and participation of small farmers is to promote the generation of infrastructure (market level) and capital (firm level) that alleviates the capital, information, and risk constraints that cause “market failure” to access and stay in the market. Nevertheless, the case studies also showed that small farmers need more than resources aimed at giving them access to non-traditional markets and to help them comply with several complex and demanding requirements. To keep their market position, they must sustain such compliance continually and consistently. It is also showed that ‘time must take its course’—development programs focused on helping small growers access markets as quickly as possible should not sacrifice foundational investments aimed at strengthening capacity and human and social capital, which are preconditions for sustained success after entering these demanding markets. Analyzing public programs with respect to their intended effects on small

farmers' access, competitiveness, sustainability of market access, and benefits can help to reveal implicit tradeoffs among them.

Since supermarkets are “governing” markets and increasing their shares with respect to traditional markets, the public sector should keep promoting small farmers' access and training in order to supply these markets. Yet, in all public efforts to promote small farmers' non-traditional markets, issues beyond immediate access and superficial competitiveness and sustainability must be treated. The generation of human and social and organizational capital are also key to successful participation in these markets, and projects that have a primary emphasis on promoting market access can, through the design of their projects, simultaneously have a complementary effect on the other aspects.

7. References

- Balsevich, F., J. A. Berdegué, L. Flores, D. Mainville and T. Reardon (2003). "Supermarkets and Produce Quality and Safety Standards in Latin America." *American Journal of Agricultural Economics* 85(5): 1147-54.
- Berdegué, J.A. (2001). *Cooperating to Compete. Peasant Associative Business Firms in Chile*. Published doctoral dissertation, Wageningen University and Research Centre, Department of Social Sciences, Communication and Innovation Group. Wageningen, The Netherlands.
- Boselie, D., S. Henson, and D. Weatherspoon (2003). "Supermarket Procurement Practices in Developing Countries: Redefining the Roles of the Public and Private Sectors." *American Journal of Agricultural Economics* 85(5).
- Caswell, J. (1997). "Rethinking the Role of Governments in Agri-Food Markets". *American Journal of Agricultural Economics* 79 (2): 651-656.
- Dimitri, C. and B. Krissoff (2000). "Quality Standards for Agricultural Commodities: Public and Private Sector Roles." *Review of Agricultural Economics* (Under review).
- Holleran, E., M. E. Bredahl, L. Zaibet (1999). "Private Incentives for Adopting Food Safety and Quality Assurance." *Food Policy* 24(6): 669-683.
- Jano, P., F. Balsevich, M. Lundy, and T. Reardon (2004). *Case Study of the Cooperative of Production and Marketing (COOPROCOM R.L.), Nicaragua*. Report, September, Santiago, Chile: Rimisp – Latin American Center for Rural Development.
- Jano, P., M. Lundy, and T. Reardon (2004). *Case Study of the Association of Small-Sized Irrigation Users of Palencia (ASUMPAL), Guatemala*. Report, September, Santiago, Chile: Rimisp – Latin American Center for Rural Development.
- Kindleberger, C. P. (1983). "Standards as Public, Collective and Private Goods." *Kyklos* 36(3): 377-96.
- Mainville, D. Y., E. B. Da Luz, and E. y T. Vidar Larsen (2003). *Cooperativa Agropecuária de Ibiúna-São Paulo (CAISP): A Case Study of Successful Collective Action to Enhance Small Farmer Welfare*. Contributed paper for the Electronic Conference: Participación de las organizaciones económicas rurales en el circuito supermercadista en América Latina y el Caribe, PROMER/FIDAMERICA/Michigan State University.

- Mainville, D. Y. and H. C. Peterson (2005). "Fresh Produce Procurement Strategies in a Constrained Supply Environment: Case Study of Companhia Brasileira de Distribuição." *Review of Agricultural Economics* 27(1): 130-38.
- Mainville, D. Y. and D. Zylbersztajn (2005). "Determinants of Retailers' Decisions to Use Public or Private Grades and Standards: Evidence from the Fresh Produce Market of São Paulo Brazil." *Food Policy* 30(3): 334-53.
- Morales, C. (1998). *National agricultural research systems in Latin America and the Caribbean: Changes and Challenges*. Santiago, ECLAC.
- Poulton, C., A. Dorward, and J. Kydd (1998). "The Revival of Smallholder Cash Crops in Africa: Public and Private Roles in the Provision of Finance." *Journal of International Development* 10 (1): 85-103.
- Reardon, T. and J. Berdegue (2002). "The Rapid Rise of Supermarkets in Latin America: Challenges and Opportunities for Development." *Development Policy Review* 20(4): 371-388.
- Reardon, T. and E. M. M. Q. Farina (2001). *The Rise of Private Food Quality and Safety Standards: Illustrations from Brazil*. International Food and Agribusiness Management Association, Food and Agribusiness Symposium, Sydney, Australia.
- Reardon, T., C.P. Timmer, C.B. Barrett, and J.A. Berdegue (2003). "The Rise of Supermarkets in Africa, Asia, and Latin America." *American Journal of Agricultural Economics* 85(5): 1140-6.
- Reardon, T. and C.P. Timmer (2005). "Transformation of Markets for Agricultural Output in Developing Countries since 1950: How Has Thinking Changed?" Chapter 13 in R.E. Evenson, P. Pingali, and T.P. Schultz (editors). Volume 3 *Handbook of Agricultural Economics: Agricultural Development: Farmers, Farm Production and Farm Markets*.
- Schwentenius, R. and M. A. Gómez (2002). "Supermarkets in Mexico: Impacts on Horticulture Systems". *Development Policy Review* 20(4): 487-502.
- Sporleder, T., C. Kramer, and D. Epp (1983). *Food Safety*. Chapter 9 in *Federal Marketing Programs in Agriculture*.