MODERNIZATION OF THE TRADING AND LOGISTIC SYSTEM OF THE FRUIT AND VEGETABLE SECTOR OF CHUBUT PROVINCE, PATAGONIA

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Abstract

The Valle Inferior del Río Chubut (VIRCH) is the main valley irrigated of Patagonia –Argentina- with 23,000 hectares (69,000 acres) where, after livestock, the vegetable and fruit production has gained second place in importance because of its localization underneath the Barrier of Animal and Plant Health of Rio Colorado, which makes the products safer since it is used much less agrochemicals, and consequently offers higher quality and less perishable, although the valley production do not cover local consumption. Because of that, the Provincial Government with the National Government's technical support created a Program denominated "Development and Strengthening of an Agrifood Platform for fruit and vegetable in Chubut Province", counting with local and international financing. This proposal tries to ensure the provision or supply of fruits and vegetables to local consumers for which requires infrastructure and adequate tools to improve transparency of commercial transactions. In the meantime, to transforming the system of wholesale marketing it is required the construction of a platform as a place of development of new services companies and improvement the current ones. This Unit will be a right marketplace for buying wholesale horticultural products coming from other markets outside the region and for stimulates consumption through the implementation of food safety and quality control among other advantages such as fair prices. The main purpose is to analyze modernization of the Trading System and Logistics for fruits and vegetables of the province of Chubut.

Keywords: Fruit and vegetable sector, logistics Transfer Center, Agrifood Platform, market development

Introduction

The project "Development and Strengthening of the Agrifood Platform for Fruit and Vegetable in Chubut, Patagonia", generated by National Government Program (PROSAP)⁶⁶ and approved by Inter-American Development Bank aims to improve the production and commercial efficiency of the sector, in order to generate a sustainable increase of the rent for all involved actors of the chain, from producer to

increase of the rent for all involved actors of the chain, from producer to consumer. To reach this performance improvement is proposed the modernization of the logistic and commercialization, and wholesale trade enhancement to ensure the safety and quality of products.

In the valley (VIRCH), the horticulture occupies 1,040 hectares, of which only the potato covers 50 %, meanwhile the other 50 % is destined to onions, corn, garlic, lettuce, and others. Production under cover represents about 10 hectares distributed among 30 producers. Regarding to fruit production, cultivation of cherries is the predominant activity in the valley, with 200 hectares distributed among 45 producers. This production only satisfies 15% of the regional demand, and it reaches 43% of the population of the province. of the province.

The Fruit & Vegetable production presents a marked seasonality with the particularity of supplying the local market with vegetables from October to May and fruits from December to February. Meanwhile, the rest of the year offers only potatoes, onions and carrots, generating a discontinuity in supply due to low production under cover, and low diversification out of season. Besides, there is oversupply during season with its consequent reduction in both prices and incomes. This situation generates the logistic need of increasing not only transport but also storage in order to buy products from other areas. The local capacity is of 9 platforms with space to 80,000 boxes, and with cold storage capacity of 40,000 boxes.

Small farmer works on rented land, and he is characterized by lack of technical knowledge and that is why makes improper use of agrochemicals, also has limited access to the use of modern technologies such as irrigation with fertilizers. Besides, farmer is unaware of the cost income ratio, and either knows how to use a proper post- harvest or handling equipment for

either knows how to use a proper post- harvest or handling equipment for improving conditioning of fruits and vegetables. This situation coupled with the commercial mismanagement does not allow to access to demanding markets. On the contrary, fruit producer (cherries) is mostly landowner,

⁶⁶ Provincial Agricultural Services Program (PROSAP)

although he has the same problems than the farmer, such as, low productivity and low export quality, with a marked seasonality and lack of technological incorporation in the post- harvest process.

The current Vegetable marketing scheme prevailing in the province is characterized by a highly atomized chain supply, lack of information flows (price, quality and varieties) for making business decisions and without management of neither Good Manufacture Practices (GMP) nor food safety system (HACCP). The direct selling by producer reaches almost 75 % of operations, particularly in the smallest stratum, whereas only 25% of producers sell according to the commercial operators requirements. This means most of them do not have standardization nor classification, poor planning and inappropriate logistic.

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There is an important absence of a supply system formal and organized, similar to what happens in other provinces. Most of the merchandise is sold in farm and transporting is not registered or supervised, generating an informal circuit, which facilitates the lack of reliable numbers and an absence of control of movement of the products. Besides, vehicles carrying products from the farms to the distribution centers and retailers usually do not carry documents (transport's guides) pointing out the species and the quantity transported. Furthermore, which aggravates the situation described is the lack of safety control of the products to be consumed by the population, i.e. the safety of the products at any point of the chain is not guaranteed, generating a high health risk to the consumer.

The wholesalers supply fresh products to retailers in the province and the rest of southern Patagonia, especially Comodoro Rivadavia (the city with the highest population of the region). In the program area, formally operates 9 wholesalers, 6 are located in Trelew and 3 in Puerto Madryn. The three largest ones serve the double purpose of producers integrated and wholesalers, providing cold storage and warehouse for bulk; one of them also has a washing platform of carrots. Additionally, in terms of tasks such as: classification, packaging and processing, the province only has infrastructure for potato washing that belongs to the municipality of Dolavon, and a lyophilizer platform for fresh products, in Gaiman.

This Program focuses on providing solutions for Fruit and Vegetable Sector in the Province of Chubut and proposes to strengthen the weaknesses identified in the previous diagnosis through these measures: 1- Productive Chain Improvement, 2- Advancement of Trade Network and 3-Modernization of the Trading System and Logistics. The improvements of

transaction, proposes to build an Agrifood Platform (see annex 1 and 2) with infrastructure, services and adequate equipment.

In addition, it proposes to build an International Logistics Transfer Center, located at the Airport of Trelew, with logistical support services. Currently the exports of those perishable products are exported by Buenos Aires International Airport but the transaction costs are high due to distance, storage and administrative costs; thus one of the purposes of this Program is to promote and expand export of fine fruits from the origin (Patagonia) in order to decrease those costs. order to decrease those costs.

Project Actions

To define this initiative and its execution there are activities that cannot be delegated to the private sector due to high strategic interest of the government. One example is to provide food security to the population, by promoting market with the implementation and control of food safety and quality standards, among others. This initiative requires actions to promote productive diversification that also must be accompanied by an agribusiness development linked to the supply chain of fruits and vegetables. These measures are also important, to add value to natural resources underlying in the territories, and gain share in the domestic and regional market.

According to the conceptual frame previously established, the strategy of horticultural and fruit production development in the province aims to integrate supply chain, supported by public investment as an element of strengthening and management to generate genuine wealth. Furthermore, it requires the collaboration of public and private stakeholders in trade policy for the global economy and the efficient functioning of domestic markets, although sometimes the interests of productive and commercial actors not always match with those policies.

The provincial government involvement as an investor is only cannot be delegated to the private sector due to high strategic interest of the

The provincial government involvement as an investor is only justified by the uncertainty of the private sector to invest in productive chains that are not fully developed and aims to minimize risks and improve competitiveness. It is also government exclusive liability execute activities in order to ensure food safety

The chances of performing the transformations pointed out require a maturation period of small farmers with less economic resources and also needs an active participation and support of the government. Reaching a competitive offer of products in both quality and quantity, not only in the domestic market but also international, depends, particularly in Chubut, on integration of trade system for fruit and vegetables, through the creation of an Agrifood wholesaler Platform. This platform must to strengthen and articulate the whole chain of fruits and vegetables, by developing oriented quality and safety strategies, supporting primary production and generation

of trading strategies based on the development of logistics and use of information systems. All of this is possible if there is an adequate basic infrastructure and highly qualified human resources that promote the full development of the chain as a whole.

The commercial strategy of the Program is based on the establishment of a public service, reliable, efficient and dynamic, enabling producers and entrepreneurs to respond with their production to the demands of consumers. Besides the program has to supporting ventures that increase investment to levels that enable the sustained expansion of productive activities and trade, even encouraging the contribution of capital, technology and management skills.

The role of government is to promote and facilitate the improvement and redesign of the supply chain to increase product competitiveness. So the government's actions would help strengthen the operational capacity providing: assistance, technical training and business counseling and also seeking to reconcile two dynamics that must be synergistic: the need of providers of increasing their competitiveness and improving consumer's life quality.

Due to the absence of a Marketplace and in order to ensure transparency in transactions and price formation, by the concurrence of supply and demand in a single field, in the last two years, from October to May, it has been operating a Fair Horticultural that was held in Trelew. This event was taking place in an area of 640 m2 with 30 exhibitors with stands of 17.5 m2 each (5 x 3.5 m2) and a weekly sale. Despite that the Fair was successful, infrastructure was insufficient and food safety could not be guaranteed.

Due to the fruit sector and particularly cherries is export oriented in a 50% of its production, it is better organized than horticulture. The commercialization of cherries is concentrated in packinghouses, where the classification, packaging and sales are made. Although selling arrangements differ according to the agreements reached among producers and buyers.

In total, in the VIRCH region, there are 7 Packing Platforms of cherry that only work 45 consecutive days in a year. Therefore, commercialization is very informal, since the fruit is sold on consignment which is a disadventage because generally buyers do not respect prices prayiously

disadvantage because generally buyers do not respect prices previously agreed. Closed contracts with clear and safe commercial sales practices are very rare.

Due to the inefficiency in logistics articulation and the informal business process the final price paid to producers represents 25% of the price obtained in the target market (using air cargo) and 40% when fruit is sent by sea. An additional restriction for export of cherries from Chubut is given by the impossibility of air cargo from Trelew Airport, since this does not have

the necessary infrastructure for such operations nor has staff capable to carry out suitable inspections, causing material injury by having to move fruit to Ezeiza Airport to proceed to export (approx. 1900 kms).

To overcome the situation described is needed a transformation of

To overcome the situation described is needed a transformation of wholesale system in the province, for what it is advisable to building a AgriFood platform as Development Center and providing a place for purchases wholesalers from other markets and where marketers and processors interact with each other focusing on the distribution and promotion of consumption by adding quality, safety and traceability.

On these days (December 2014) the program is in execution by 60%, the progress of the construction of Marketplace has been possible with an economic contribution of 58% from Chubut government and 42% from the IDB considering that the final investment is \$ 77,861,497.

The direct beneficiaries of the project are 100 horticultural producers and 30 fruit growers, occupying an area of approximately 1,000 ha and 200 ha, respectively. Furthermore, with the construction of the Platform another direct beneficiaries would be 86 operators. On the other hand, indirect beneficiaries are wholesalers and retailers receiving better quality products and better service supply. It is estimated that about 150 retailers will be source of supply of new market. Finally other related services such as transport, loading and unloading, storage, packing, advertising and financing, consisting of approximately 70 operators also will be benefited indirectly from market activities. from market activities.

Conclusion

In conclusion, the Program's proposal is the construction of Agrifood Platform to correct the problems raised and in order to organize and complete the production and marketing chain, becoming a center of logistics development. This Platform will become the dynamic element, open to incorporate other activities besides fruit and vegetable, contributing to a

incorporate other activities besides fruit and vegetable, contributing to a better use of infrastructure, with consequent cost reduction.

So that it is necessary to review the criteria of "concentration" as a synonym for agglomeration and replaced by "competitiveness", without discarding the inescapable responsibility of government of induce companies to settle in the Platform, to ensure food safety, urban development and quality of life of the population.

The application of existing rules and potential new ones related to transportation and food control based on science configures a situation where the operators will prefer to operate from the platform; and thus it becomes consistent application of the rules to the general interest and to the companies with the benefits of competing fairly in a uniform and equitable framework framework.

A strong engagement of vendors is essential condition for the success of Platform because if their supply is not commercially attractive and competitive, will be insufficient any public coercion that seeks to concentrate operations. On the contrary if the offer is competitive, it will be easier to improve the systemic quality through sustainable and growing demands on health, environment, added value and differentiation.

The Program implementation generated benefits along all the links that compose the chain of fruit and vegetables in the province, producing a progressive increase efficiency and supply, in quantity and quality.

Farmers and actors of private sector will benefit by expanding their knowledge and training in production and trade issues, which will result in an improvement in profits

They will also benefit from availability of business information, encouraging decision-making and reducing transaction costs.

Access to a safe market will also help to expand the possibilities for investing in under cover production, achieving higher efficiency, quality, and extending the production period.

- Other benefits expected

 ✓ The market will generate an order in the commercialization of products.
 - ✓ A significant reduction in environmental deficiencies with relocation, modernization, organization and control of trade outside urbanized

 - ✓ Increased transparency of operations based on business management and strengthening joint marketing activities.
 ✓ The new market structure will benefit directly to marketers and producers currently do not have a suitable place for their operations
 ✓ A more efficient marketing structure is generated with adopting new strategies associated with the safety and quality of products.
 ✓ Local consumers will also benefit by having a choice of more fresh fruit and vegetable products, higher quality and more competitive prices prices.

prices.

Finally, the Program takes into consideration a partial recovery of investment costs, especially those associated with the construction and maintenance of Platform; through charging a fee to market operators who will pay a rent by use of fixed spaces, free stands and spaces designed for the installation of private services offered by the project.

About the developed work with producers has been to training, selection of machinery that will advance technologically in production, and intensive fieldwork. Also the information system produced is transmitted to the producer who is making a rapid opening to market generating profitable

production, better efficiency, and good quality and product diversity

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References:

References:
Bado S. G; Hughes A. N. (2010). Fauna entomológica asociada a cultivos de frutas finas en el Valle Inferior del Río Chubut (Región Patagonia Sur Argentina). Bol. San. Veg. Plagas, 36:179-187. Argentina
Benencia, R. y colaboradores. (2009). Cinturón Hortícola de la Ciudad de Buenos Aires: cambios sociales y productivos. Ed. Fundación Centro de Integración, Comunicación, Cultura y Sociedad -CICCUS. Pág. 320.
Bouzo, C. A.; Favaro, J. C.; Pilatti, R. A.; Scaglia, E. M. (2005) Cinturón Hortícola de Santa Fe: Descripción de la zona y situación actual. Revista FAVE – Ciencias Agrarias 4 (1-2). Pág. 63-69.
Fernández Lozano, José. (2012) La Producción de Hortalizas en Argentina. Gerencia de Calidad y Tecnología. Secretaria de Comercio Interior. Corporación del Mercado Central de Buenos Aires. Argentina.
García Lorenzana, Úrsula. (2004) Situación y Perspectivas para la Horticultura. Región Protegida Patagónica. Presentación en Primera Jornada de Perspectivas Hortícolas, organizadas por Asociación Argentina de Economía Agraria. Viedma, Río Negro. Argentina.
Iglesias, N. (1998) La Horticultura en la Patagonia Norte. EEA INTA- Alto Valle, Río Negro, Argentina.

Valle, Río Negro, Argentina.

Jatib, M. Inés. (2011) Informe Técnico: Desarrollo de la Unidad Alimentaria y Fortalecimiento del Sector Fruti-horticola de Chubut - Programa de Servicios Agrícolas Provinciales (PROSAP) Ministerio de Agricultura, Ganadería y Pesca.

Martínez Quintana, O. (1999). La producción Hortícola en el Área del Cinturón Hortícola de Buenos Aires. Unidad de Extensión y Unidad de Extensión y Experimentación Adaptativa. Gran Buenos Aires. INTA. Argentina.

Ministerio de Economía. (2010) Sector Hortícola, Primer Informe Sectorial. Dirección de Información y Análisis Sectorial, Dirección Nacional de Programación Económica Regional. 32 pp.

Morales Ibarra, Marcel (2011) Mercado mayorista de alimentos y neoliberalismo. La Central de Abasto de la ciudad de México. Pág. 87 Ordoñez, H.; Jatib, M I. (2002) Aportes metodológicos de estudio e intervención en los agronegocios. Una teoría, tres modelos y tres casos en Argentina. XXXIII Reunión Anual AAEA. FAUBA. Octubre 2002. Argentina.

Szczesny, A. (2004) Producción Hortícola Regional. Oficina de Información Técnica Mar del Plata, Grupo Operativo de Trabajo Sudeste, INTA.

Annex 1 – Agro-food Platform Located on Route 25, with the surface estate of approximately 6 ha. The draft was developed in this property, based on the dimensional requirements for the main business and complementary, considering the vehicular connectivity to the village and areas of influence. It is an area with good accessibility depending on the route of rapid communication and the possibility of secondary accesses.



Annex 2 - Unit Operational Capability (fruit and vegetable marketing industry)

Based on the data obtained and the particular situation of Trelew, an estimated average consumption 200 kg per capita for a population served encompassing the town of Trelew and its neighbors within a radius of 60 Km, plus a portion of the population Comodoro Rivadavia, Santa Cruz and Tierra del Fuego, and area of influence.

