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Positioning agriculture and rural life on the Inter-American agenda

- Institutional change
in agricultural research

Factors of success

Rural agro-industry

A current approach to the challenges faced

Modern trends, including urbanization, consumer interest in health issues and in organic and ethnic products, or their sensitivity to issues such as equity, open up new opportunities and pose new challenges to rural agro-industries.

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consumer habits relating to the purchasing, preparation and consumption of foodstuffs.

In that regard, the situations that occur in the manufacturing sector also arise in rural agro-industry. Over the past 20 years, the trend has clearly been towards a cluster of agro-industrial enterprises, with the most innovative ones — in terms of products, processes and management — being the survivors, while supermarkets have become the main retail outlets. These and other significant trends in development have opened up new opportunities and posed new challenges for rural agro-industry.

Urbanization

The current trend towards urbanization is reflected, among other things, in increased food consumption outside the home (in the late 1990s, it was estimated that 30% of the food budget of the residents of Bogotá went to the purchase and consumption of products outside the home).

Urbanization is also evident in an increased interest in foods that offer functional advantages and in the growth of fast-food chains and food services. There is renewed interest in semi-processed fruit and vegetable products, sauces and dressings for savory or sweet dishes, and semi-prepared products purchased by fast-food chains and food services.

To take advantage of these opportunities, rural agro-industries should adapt their processes and products, particularly in two areas. Firstly, by implementing quality-control systems (Hazard Analysis and Critical Control Points – HACCP) and best manufacturing practices. Secondly, by designing and applying logistical strategies that will enable them to rationalize the costs associated with storage, transport and pro-

In the twentieth century, rural agro-industry was virtually ignored in Latin America and the Caribbean up to the 1970s. Now, however, there is ample recognition of the economic and social importance of hundreds of thousands of small-scale cheese factories, sugarcane mills (trapiches), cereal mills and cassava processing plants (rallanderías), beehives for honey production, coffee and cocoa processing plants, farms for obtaining fiber from South American camelids, and the production of vinegar, marmalade, sweets and all kinds of crafts.

Such enterprises are vulnerable to the changes that accompany the globalization process, including the opening up of markets, the signing of trade agreements between countries and ever-changing

Rural agro-industries should adapt their processes and products by putting in place systems for guaranteeing quality and best manufacturing practices and applying appropriate logistical strategies.

duct distribution. All of these elements play an important role in the cost structure of final consumer products.

Institutional markets

Given the aforementioned trend, institutional markets have become more important and sophisticated. These markets fall into two categories: industries that need raw materials and ingredients for processing operations, and large-scale consumers such as government food programs, hospitals, armies and similar institutions.

As regards the first category, a high percentage of rural agro-industries are suppliers for industrial clients. Thus, for example, they supply fermented cassava starches, which are used by large food and non-food companies in the preparation of their end products. Other products used by industry are cereals, dairy products, coffee and cocoa, to mention just a few.

In the second group of consumers, school lunch programs are especially important. In Uruguay, for example, over 300,000 children and young people benefit from such programs, which also cover 1.5 million school children in Chile, and 2 million in Peru. Food programs also target mothers and children and soup kitchens, which have become major buyers of products supplied by rural agro-industries in countries where state agencies give priority to purchasing from local suppliers.

Health-conscious consumers

Thanks to an increased interest in health over the last few decades, a type of products known as “nutraceuticals” have appeared on the market. These products combine nutritional and pharmaceutical properties and are used especially in disease prevention.

A study conducted by Nielsen in Colombia in 2004 showed that the food categories whose sales increased the most during that year were health foods. In sectors such as dairy products, so-called “light” products accounted for 25% of consumption and they grew at a higher rate than conventional products.

This performance opens up opportunities for taking advantage of native biodiversity, especially vegetables from the Andean and Amazon regions, which contain microele-

ments that can be used to enrich other foodstuffs with vitamins or minerals or other types of micronutrients. Some examples of these are camu-camu, which has the highest known vitamin C content for a natural product; cat’s claw, which has significant levels of alkaloids that have anti-inflammatory properties and strengthen the immune system; and maca, which has vitamins and minerals that help raise energy levels.

This potential offered by nature is reinforced with local knowledge about these indigenous products, both as regards the minimum level of processing required to extract and make the best use of their active ingredients, and as regards their use, forms of consumption and applications.

Finally, in addition to their heightened awareness of health issues, consumers have shown increased interest in natural, minimally processed and organic products, especially in the developed countries. Total sales of organic products on the world market are estimated to be around US \$ 23.5 billion, and they are growing at an annual rate of about 20%. Coffee, cocoa, bananas, soya, cotton and sugar account for the bulk of these sales. Several rural agro-industries in the region, especially those producing coffee and cocoa, have entered this niche.

These opportunities cannot be realized and have impact without a physical-chemical and nutritional classification of local biodiversity that is validated for scientific accuracy by internationally recognized entities. Such recognition would, on the one hand, help to confirm the presence of useful ingredients and, on the other, it would counteract fears and questions about the presence of potentially toxic anti-nutritional elements in products that are well known in tropical countries but are exotic to other markets.

Some time ago, when the introduction of some of these products to the Canadian market was being proposed, the Program for the Development of Rural Agro-industry in Latin America and the Caribbean (PRODAR) identified a number of questions that had been raised about the content of products that had not been considered previously. For example, an analysis of blackberries (*Rubus glaucus*) and their derivatives had shown that this product had significant potential as a source of iron, but that there was not enough information about levels of iron absorption from fresh or processed blackberries. A study of *lulo* (*Solanum quitoense Lam*) showed that, although it had excellent aroma and taste, there was cause for concern about levels of saponins.

In this regard, it is important to bear in mind two fundamental aspects of the standards applied by the northern countries to this type of goods. One is the recent application by the European Union of its own standards for the

introduction of new products to member countries. These standards, which are additional to the ones already in force for traditional products, place special emphasis on supplying scientific information as a basis for determining food safety. The other is the application by the United States Food and Drug Administration (FDA) of its regulations for making claims pertaining to medicinal or health-related properties of products, which are allowed for only a small number of diseases and health conditions.

Another serious problem is the careless way in which many of these products are promoted and the misrepresentation and exaggeration of their benefits. As a result, consumers on the international market have been disappointed, since the products do not live up to their expectations.

Rural agro-industries wishing to enter this niche must also develop mechanisms for covering the cost of certifying their products so as to ensure that they will be well-received in those markets.

To this must be added the importance of achieving greater growth for this segment on domestic markets, so as to ensure a stable supply on the local market, given that there is more interest in the international markets. Many countries are now organizing special fairs, and supermarkets have set up separate sections for the display of organic products; however, the local markets are still less dynamic than the external markets.

Migration

The worldwide phenomenon of migration has led to the growth of a market niche associated with nostalgia. This is sometimes referred to as the ethnic market.

Depending on the source of the data, estimates show that there are between 35 and 41 million people of Hispanic descent in the United States; the highest density of this population is to be found in places like Miami, New Jersey, New York and Los Angeles. The Hispanic population has the highest growth rate of all the ethnic groups in the country, and its purchasing power is estimated at between US \$ 500 billion and US \$ 750 billion per year, with at least 10% of that amount going to food purchases. Moreover, Hispanics are loyal to brands from their countries of origin and are willing to pay more for products from those countries.

This represents another opportunity for rural agro-industries, given that areas with a high density of ethnic populations create a natural market where the products offered do not have to be widely advertised. Stores and supermar-



kets that carry latino products play an important role in this regard, since they already have established their position in this niche, thus making it easier to market these products.

The main challenges facing agribusinesses wishing to gain access to this segment are mainly of a logistical nature. They need to find efficient ways to reach those markets with quality products and formalize their operations so as to move from small-scale, quasi-informal marketing practices to handling larger volumes.

The importance of supermarkets

Supermarkets are becoming increasingly important as distribution channels for final consumer products in the urban centers of Latin America; in most cities in the region, they distribute between 60 and 70% of all foodstuffs. Thus, they represent an opportunity for rural agro-industries, as they establish lasting relationships with actors and thus reduce the number of intermediaries between producers and final consumers.

Supermarkets also usually carry their own brand names for processed products, thanks to outsourcing (maquila) contracts with small and medium-sized companies that have strengths in certain areas. A number of studies have shown that supermarket brands now account for nearly 5% of food sales in Latin American supermarkets, and this share is expected to reach 20% within less than five years.

This possibility has become both a threat and a challenge, not only because it means that the supermarkets will require high-quality products and efficient logistics, but also because of their practices regarding payment periods and product promotion. Most of the rural agro-industries in the region cannot compete on those terms.

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Appreciation for local products

One of the unexpected effects of globalization is the awakening of interest in and appreciation for the cultures, customs and beliefs of certain geographic regions.

Many consumers have begun to show an inclination to follow a trend towards standardized eating habits that depart from their own traditions. In reaction, there is also a movement to restore the consumption of local foods, and this represents a new opportunity for rural agro-industries. The most notable movement in this trend is the "Slow Food" movement which originated in Italy some 20 years ago and which now has thousands of followers who are organized into national groups representing more than 70 countries.

Two factors have contributed to this opportunity: on the one hand, there is a linkage with rural tourism, mainly through the development and promotion of "gastronomic routes" associated directly with products that are typical of a given location. On the other hand, international standards are being applied to protect the territorial identity of products through the use of seals showing their geographic identity or place of origin.

The European tradition of "gastronomic routes", which originally was associated mainly with wine, has gradually taken hold in Latin America, with Argentina in the lead and several other countries following suit. Seals showing geographic identity or place of origin, in keeping with the longstanding tradition in Europe and focusing on wine, cheese and meat products, are increasingly being used in the Latin American countries. The best example is Mexico, where more than 20 products are identified in this way, including tequila, mescal, coffee from Veracruz and Chiapas, cheese from Cotija and vanilla from Veracruz.

Given the above scenario, rural agro-industries face two major challenges. The first is the limited local infrastructure of basic services, such as roads and communications, water and electricity, which make it difficult to mobilize urban consumers to the areas that offer special products. The second is the incipient development of the standards and institutions needed to support the use of geographic identity seals.

It must also be borne in mind that the market for products from specific geographic regions is a relatively small one. A number of studies have shown that even in Europe, with its tradition of differentiation, the market share of such foods and beverages in countries where the practice is well established is lower than 10%, with certain specific products holding a higher share.

Concern for equity

Over the last few years, consumers have become increasingly sensitive to social issues, especially in the developed countries. They want the businesses that produce the products they buy to comply with standards relating to work contracts and women's and children's work, and they want profits to be distributed more equitably along the value chain, so as to ensure better remuneration for crop and livestock producers.

This has given rise to the concept of fair, equitable or alternative trade, which has become an important niche, especially for rural agribusinesses involved in value-added production of coffee, cocoa, honey and brown sugar loaf (*panela*), among other products.

This makes it possible for nearly one million small-farmer families in Latin America, Asia and Africa to develop linkages to the "northern markets". Their sales, particularly of coffee, cocoa, honey, nuts and *panela*, are estimated at US \$400 million per year.

In order to avail themselves of this alternative distribution and marketing channel, however, rural agro-industries must meet certain requirements. In the first place, and as with the other options, they must guarantee the safety of their food products. In addition, they must disclose the type of contracts they give their workers (when applicable) and show that their production processes are friendly to the environment; that they comply with national regulations concerning management of pesticides, water and forests; that they have special funds to ensure proper distribution of additional profits arising from their relationship with this alternative marketing chain; and that there is an organizational structure to ensure participation and control by producers.

Compliance with these standards is certified by recognized fair-trade organizations that are qualified to perform this task, the main one being the International Fair Trade Labelling Organization (FLO).

The need for public-private partnerships

This new panorama of opportunities and challenges faced by rural agro-industries points to the importance of supporting the consolidation of an alternative agricultural production system other than the one prevailing in most countries of the region.

The current system favors farmers who have the best access to production resources, agro-industries that inter-

act with them or that process imported raw materials, and well-established formal marketing channels for the distribution of products of large companies or direct imports, which are mainly accessible to urban high- and medium-income consumers.

Rural agro-industry offers an option to small-scale rural producers, enabling them to organize so as to generate value-added and preserve value in their areas of production. They can develop linkages with those same agro-industries and with established marketing channels or with alternative circuits where they can also offer safe, high-quality products to both high-income and low-income populations. This is possible thanks to three key elements:

1) Organization. Not only do small-scale rural producers need to set up their own agribusiness organizations, they also need to enter into production agreements and partnerships with other economic actors. These may include competitors, with whom they might enter into cooperation agreements, and large companies, with which they can agree on different types of linkages. In order for this process to work and be consolidated, producers must establish trust and comply with the terms of these agreements.

The potential of agro-industrial clusters and local agri-food systems. With regard to organization, consideration might be given to the possibility of mobilizing local resources for collective action. Such action should be aimed at taking advantage of the clustering that is prevalent in the spatial arrangement of many of the rural agro-industries in the region. Such clustering occurs with the rural cheese factories in specific regions of Colombia, Costa Rica, Ecuador, Mexico and Peru, to mention a few; production of guava snacks and paste in Santander Department in Colombia; wine production in Ica, Peru; raising and use of South American camelids in the Andean highlands of Peru and Bolivia; production of quinoa by-products in the same region; production of cassava bread (*casabe*) in the Venezuelan plains; and harvesting of indigo in El Salvador, among others.

This clustering occurs in regions where the climate, soil and socioeconomic environment are especially well suited to the product in question. A theory regarding such clusters has recently been developed, based

on the economics of territories and industrial districts, which has given rise to what has come to be known as local agri-food systems (SYALs). These are defined as systems made up of production and service organizations that are associated with a specific territory, given their characteristics and the way they operate. The means, products, persons, institutions, know-how, food-related behavior and relationships that comprise these systems all work together within a given territory to produce a certain type of agri-food organization within a given spatial scale.¹

On this basis, a methodology has been designed and tested which makes it possible not only to conduct a diagnosis of these SYALs, and thus identify their specific resources and assets, but also to promote discussions for the purpose of engaging in collective action. This is reflected in achievements such as the strengthening or development of entrepreneurial associations, the design and application of collective brand names and the formulation of protocols for ensuring recognition of designations of origin, among other things.²



¹ Muchnick, J and Sautier D. quoted by Boucher F in "El Sistema Agroalimentario Localizado de los productos lácteos de Cajamarca: una nueva perspectiva para la Agroindustria Rural." México 2003

² Adapted from Boucher F, op cit

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2) Guaranteeing quality. The size and degree of organization of an agribusiness operation does not exempt it from meeting the basic requirement to guarantee food safety. Once it meets this condition, it can advertise and promote the other special qualities of its products.

It is important to build partnerships between public and private actors so as to plan and put underway efforts to implement quality guarantees and thus obtain the necessary certification to sell products on the market, such as Best Agricultural Practices and HACCP.

3) Differentiation. Differentiation can be achieved by enhancing the value of certain important assets of rural agro-industries, such as their specific know-how and use of local raw materials. This should be reinforced through the development and establishment of collective brand names, preferably backed by quality seals.

Here again, the initiatives of entrepreneurs need to be supplemented with institutions that can help them take advantage of available marketing opportunities. This has to do with guarantee seals and the formulation of protocols to define the special attributes and characteristics of the processes concerned, as well as to identify certification entities.

Support services

In order to deal effectively with the scenario described above, a significant supply – in quantity and quality – of technical support services for rural agribusinesses must be built up in areas other than those mentioned above.

Rural agro-industries find it very difficult to conduct market intelligence and research studies and to develop marketing strategies. This is due to the fact that specialized services in these fields are rarely available in rural areas, and

there are no methodologies for adapting the concepts and tools of some of the modalities described in these studies to the actual circumstances of rural agro-industries.

Another need which has not really been met, despite many serious attempts – has to do with the development of information systems that are suited to the regime of rural agro-industries, including certain aspects of marketing and technology. In this regard, the introduction of new communication technologies can open up new prospects and help bring Internet access to large rural areas in the countries and enhance projects for improving the necessary infrastructure.

It is also very important to promote applied research in two main lines of work, namely, identifying the physical, chemical, biochemical and nutritional characteristics of local biodiversity, as well as its potential on the international market, and the development of mechanisms and means for implementing logistical strategies that can be applied to rural agro-industries and facilitate their market access.

All of the above can be supplied through the efforts of rural agro-industries themselves, which, like any other economic activity, need a framework of policies and of tools and incentives to facilitate their development. A greater impact could be achieved by carrying out these initiatives within the framework of rural development efforts having a territorial approach. This would make it possible, among other things, to deal comprehensively with the management of natural resources such as soils and water, and the impact of waste disposal and effluents on the environment, and to address the historical and cultural aspects of the local surroundings and of the institutions that need to be developed or strengthened.