Regoverning Markets

Small-scale producers in modern agrifood markets

Innovative Policy

Mexico
Strategy for the inclusion of small and medium-sized avocado producers in dynamic markets as a result of phytosanitary legal controls for fruit transport in Michoacan

Rubén Medina and Marx Aguirre
SEDAGRO

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Mexico

Strategy for the inclusion of small and medium-sized avocado producers in dynamic markets as a result of phytosanitary legal controls for fruit transport in Michocán

Rubén Medina
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Secretariat for Rural Development
Government of the State of Michoacan, Mexico

2007

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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Acknowledgments
Funding for this work was provided by:
UK Department for International Development (DFID)
International Development Research Centre (IDRC), Ottawa, Canada
ICCO, Netherlands
Cordaid, Netherlands
Canadian International Development Agency (CIDA)
US Agency for International Development (USAID).

The authors wish to thank the following for their helpful contributions to this document: Beatriz Uribe Garduño, former President of the San Juan Nuevo Vegetable Health Local Committee (VHLC); the engineer José Gerardo Perfino Mejía, Manager of the Vegetable Health State Committee, and the engineer Cecilio Zamora Ramos, National Facilitator of the Avocado Production System.

The views expressed in this paper are not necessarily those of the funding agencies.

Citation: Aguirre, M. and Medina, R. (2008), I*nclusión of small and mediu-scale avocado producers in dynamic markets as a result of phytosanitary regulations in Michoacán, Mexico*, Regoverning Markets Innovative Practice series, IIED, London.

Published by:
Sustainable Markets Group
International Institute for Environment and Development (IIED)
3 Endsleigh Street
London WC1H 0DD
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Tel: +44(0)20 7388 2117, email: sustainablemarkets@iied.org

Cover design: smith+bell

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1 Situation facing the Mexican avocado before implementation of the strategy to control product movement

1.1 Production and trade difficulties of the Mexican avocado

The avocado (Persea americana Miller) is native to Mexico, Central America and the northern regions of South America. The plant was introduced into other regions of the world up until the 19th Century, and its development and recognition in the food industry began with the commercial marketing in California and Florida from 1932, spreading to Chile, Brazil, South Africa and, more recently, Israel and Peru. Records showing the establishment of avocado crops in the State of Michoacan, Mexico, date back to 1950[1].

Michoacan is, by far, the principal Mexican and world producer of avocado. At present, 75 per cent of production is destined for the local market, with the rest being exported to the world market, mainly the United States (US). Mexico is also the world's biggest consumer of avocados. As can be seen in table 1.1, small producers are responsible for most avocado production in the State of Michoacan.

Table 1.1. Avocado producers per scale of production area

Type of producer	Scale of production area (Ha.)	Total production area (Ha.)	Percentage (%)
Small	0.5 to 10	37,396	57
Medium	10 to 30	22,962	35
Large	30 and above	5,249	8
	TOTAL	65,607	100

Source: Michoacan Avocado Commission, COMA, 2006.

In spite of a growth of 23,000 hectares of cultivated areas between 1970 and 1975, profits remained low and had limited prospects of improving, due to the fact that markets were not paying a competitive price to producers because of low quality standards and phytosanitary restrictions. This situation had a negative impact on the outlook and economic welfare of producers, who were affected by a severe crisis in market prices, receiving USD 0.10 cents per kilo while production costs stood at USD 0.40 cents[2].

[1] Zamora, 2001.

[2] Interviews with staff from the San Juan Nuevo VHLC. 2007.

The crisis in profitability persisted until the 1990s, which led to some leading producers collaborating with the sole aim of implementing phytosanitary controls in order to access local and national markets by improving quality standards. Producers also knew that by not fulfilling such phytosanitary requirements, the export market would remain closed to them, along with its potential to unshackle national prices, even though the North American market had effectively closed its frontiers to Mexican avocado imports since 1912.

1.2 Organisation of the avocado production chain

The producers' organisation came into existence under the shield of the Federal Law of Vegetable Safety in 1992. One of the strategic elements of this law was the implementation of phytosanitary campaigns. Work to set up local committees, the Vegetable Health Local Committees (VHLCs) began in the municipalities of Uruapan, Peribán, Salvador Escalante and Tancítaro with 60 producers, even though avocado was being cultivated in eight municipal regions[3].

Michoacan has a number of avocado producer organisations: (a) the Michoacan Avocado Commission (COMA), which represents avocado producers; (b) the National Avocado Product System Committee (CONASIPRO), formed by the different economic links or agents in the avocado value chain; (c) 16 VHLCs representing municipal avocado producers, and; (d) three Agricultural Associations (Uruapan, Tancítaro and Salvador Escalante)[4], formed in accordance with the State Law of Agricultural Associations, which offers a space for producers to meet and deal with production and marketing issues.

Furthermore, the Vegetable Health State Committee (VHSC) is an organisational body formed by agricultural producers belonging to the VHLCs throughout the whole state. It is seen as a contributing organisation to the Agricultural, Livestock, Rural Development, Fishing and Food Ministry (SAGARPA, part of the federal government), as well as the Agricultural Development Ministry of the State Government (SEDAGRO), as well as acting as a coordinating body and/or operator of the phytosanitary campaigns and work programmes undertaken by the VHLCs.

For their part, the packaging firms are associated in different groups such as:

- the Michoacan Avocado Packers and Traders Union (UDECAM);
- the Peribán Avocado Packers Union (UEAP);
- the Cooperative Society for Joint Sales (CUPANDA).

[3] Vegetable Health State Committee, VHSC, 2007

[4] Michoacana Avocado Commission, COMA, 2005.

All of these organisations represent 95 packaging companies that serve the national market, Central America and Europe[5].

The Michoacán Avocado Producers and Exporters Association (APEAM), is one of the most important organisations. It consists of producers and exporters who have been certified by US authorities. It represents more than 4 thousand producers and 26 packaging companies working in the export area. This organisation was promoted and supported by government bodies to rally efforts by producers and packers exporting avocado to the US market.

In order to join APEAM, packing firms need to pay a one-off fee of USD 232,000. Membership of APEAM is a binding condition in order to allow packers to export to the US. In the APEAM producers are represented by their associations and the VHLCs. As such, APEAM works not only as an instrument for coordinating avocado exports to the US, but also as a negotiation platform between producers and exporters in compliance with export policies and programmes.

1.3 Factors that contribute to the development of vegetable health committees (local and state)

In response to the market crisis affecting the avocado chain, and because of the interest to open the export market to the US, from 1993 onwards the VHSC, with technical support from the Universidad Michoacana de San Nicolás de Hidalgo (UMSNH) and the Rural Development Districts[6], began phytosanitary sampling and analysis in the plantations. These efforts formed part of the coordination agreements between the federal and state government in order to comply with the legislation outlined by the Federal Law of Vegetable Health[7].

In 1995, following technical work carried out by the VHLCs, a proposal was issued to allow the entrance of Mexican avocado into certain states of the US. In 1998, a final regulation was made so that producers in a limited number of municipalities could make their first deliveries to the northeast of the US. Due to the strong results of these initial undertakings by local committees in the municipalities of Uruapan, Peribán, Tancítaro and Salvador Escalante, the producers of these and other municipalities felt encouraged to join these organisations, and to date the committees consist of more than 9,000 small and medium-sized producers[5].

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[5] Michoacan Avocado Packers and Traders Union, UDECAM, 2006.

[6] The Rural Development Districts form the basis for federal territorial organisation and public administration, decentralised in Michoacan, which contributes towards strengthening regional and municipal supervision in the formulation and application of concurrent sustainable rural development programmes.

[7] Interview with engineer Cecilio Zamora Ramos, National Facilitator of the Avocado Production System. 2006.

Due to this inclusion strategy, VHLCs were strengthened. They became the most important organisations in the avocado plantation sector, due to their required participation in the issuing of phytosanitary certificates and legal permits for transporting the fruit from plantations to the different national and international markets[8]. Another key factor for controlling avocado transport included the installation of phytosanitary control posts with police attendance, where producers and traders had to present the fruit transportation certificates issued by the local committees.

Essentially, in the mid 1990s an institutional mechanism was established in Michoacán. A group of organisations at municipality level, run by mainly small and medium-size producers, were provided with the legal authority and power of inspection and legislative enforcement, in order to regulate avocado transport from the plantations to any of the final markets either in the country or abroad. This institutional framework gave producers significant power at negotiation level, both with other agents involved in the avocado production chain, as well as state and federal authorities. Although the institutional mechanism was primarily built to deal with the challenges of avocado exports to the US, particularly regarding phytosanitary concerns, in reality it has had a visible effect over the whole avocado production chain and all of Michoacan's avocado markets.

[8] Sánchez, 2006.

2 Description of the policy for avocado transport control

2.1 Legal framework of the Vegetable Health Committees (state and local)

The Federal Law on Vegetable Health was published in 1994, during changes to structural adjustment policies, reduction in public infrastructure and liberalisation of the country's economy. The Federal Government issued guidelines on phytosanitary issues, bestowing a greater degree of responsibility on producers of the country's different agricultural products in the direction and implementation of vegetable health campaigns. The desired objective was to facilitate a reduction in the number of public employees, along with the size and fiscal cost of the bodies responsible for vegetable health in Mexico.

During this same year, and following the signing of the North American Free Trade Agreement (NAFTA) between Canada, the US and México, a Binational Group was set up between México and the US to deal with the issue of avocado exports. The main role of the group was to show, via reliable technical evidence, that Mexican avocados were free of pests and disease from a quarantine perspective. In 1996, as part of this process aiming to open up the US market, the Federal Government established the first agreement with the State Government and the VHSC for coordinating the Countryside Alliance (Alianza para el Campo) programme[9]. This programme included guidelines for phytosanitary improvement as well as allocated resources for running local committees. Concurrently, a producers' initiative led to the issuing of the Norma Oficial Mexicana (Official Mexican Standard) NOM-066-FITO-1995, in which phytosanitary requirements and specifications were established for the cultivation, harvesting, packaging and transport of avocados for both the export and national market[10].

2.2 Description and role of the Vegetable Health Committees

The VHLCs are agricultural and forestry producers organisations that assist the Agricultural, Livestock, Rural Development, Fishing and Food Ministry (SAGARPA) in the development of phytosanitary measures[11]. As such, they are private-sector organisations of producers, encouraged and recognised by the law in order to provide a public service: i.e. ensure vegetable health.

[9] The Countryside Alliance is the country's principal agricultural policy mechanism.
[10] Official Mexican Standard NOM-066-FITO-1995
[11] Federal Law of Vegetable Health, p. 3

In Michoacán, there are 26 VHLCs. 16 work in the state's avocado production zone, providing assistance to 23 municipal producers (see table 2.1). As such, these organisations are structured and operated at municipal level.

Table 2.1: Local committees for municipal avocado producers

Name of local committee	Municipalities covered
1. - VHLC of Acuitzio and Villamadero.	Acuitzio and Villa Madero.
2. - VHLC Los Reyes Atapan.	Los Reyes.
3. - VHLC San Juan Nuevo Parangaricutiro.	San Juan Nuevo.
4. - VHLC General Francisco. J. Múgica.	Tinguindín, Cotija, Tangamandapio.
5. - VHLC Peribán de Ramos.	Peribán de Ramos.
6. - VHLC Salvador Escalante.	Salvador Escalante.
7. - VHLC San Andrés Corupo.	Ziracuaretiro.
8. - VHLC Ziracuaretiro.	Ziracuaretiro.
9. - VHLC Tacámbaro.	Tacámbaro.
10. - VHLC Tancítaro.	Tancítaro.
11. - VHLC Taretan.	Taretan
12.- VHLC Tingambato	Tingambato
13. - VHLC Ario de Rosales.	Ario de Rosales.
14. - VHLC Tingambato.	Tingambato.
15.- VHLC of East Michoacan	Susupuato, Juárez, Zitácuaro, Jungapeo, Tuxpan, Hidalgo.
16.- VHLC Turicato	Turicato.
TOTAL 16 COMMITTEES	23 MUNICIPALITIES

Source: SEDAGRO Vegetable Health Department, 2007.

Each one of the VHLCs that exist in Michoacan is formed by a producers' board of directors made up of a president, secretary, treasurer and three board members. The board is elected in a producers' assembly for a two year period and there is a frequent turnover of board members. A place on the board is an unpaid honorary post. Members are not viewed as public servants, as they do not undertake any job, post or commission within state or federal public administration. As these are local organisations (at municipal level), there is significant knowledge, follow-up and social control of producers on the part of board members. The committees also count on teams of professionals to provide members with assistance, as well as a manager and other employees responsible for administration. The committees are funded via contributions from producers as payment for services received, as will be detailed further on.

At Michoacan State level, the VHLCs integrate and coordinate themselves within the VHSC, which in turn is dependant on the National Services of Animal and Plant

Health, Quality and Food Safety (SENASICA), a decentralised body that is part of the SAGARPA ministry.

In short, this is an institutional mechanism that crosses the boundaries between public and private sectors, voicing the interests and capacities of both producers and government.

2.2.1 San Juan Nuevo Vegetable Health Local Committee

To underline the role of the VHLCs a review of the San Juan Nuevo Local Committee was carried out. This committee was set up in 1994 with only 60 members, and although at the beginning the majority of producers did not appreciate the importance of the organization for fulfilling phytosanitary requirements, prominent local small producers received backing from municipal, state and federal authorities in order to consolidate and expand the initiative.

At present, the committee includes the participation of 857 members, which means 100 per cent of those producers have avocado plantations. At state level, it is estimated that 85 per cent of avocado producers are now taking part in VHLCs.

2.3 Work plan of the Vegetable Health Committees (state and local)

According to the operational rules of the Countryside Alliance programme, the VHLCs present their work programme to the VHSC for its approval and assignation of public funding. This programme should include a budget for activities such as the registry of plantations in a phytosanitary directory, sampling from plantations to detect possible pests requiring quarantine, the operation of internal verification points (phytosanitary inspection posts), training, information dissemination, as well as administration of the vegetable health programme.

The inspection posts play a key role, as their objective is to prevent the entrance of fruit contaminated by pests into areas declared pest-free, or the movement of avocados from plantations to packing centres or markets without the proper documentation issued by the VHLCs. The inspection posts are manned by municipal police personnel to ensure that truck drivers present the correct transport documents. This also helps prevent robberies, by guaranteeing that the fruit is a legitimate cargo.

2.4 Communication between VHLCs and other organisations in the avocado production sector

The VHSC works in coordination with organisations representing agents in the production systems of avocado, strawberries, guava, mango, lemon, corn and coconuts, among others. Campaigns carried out annually by the VHSC in Michoacan cover more than 236 thousand hectares, producing more than 1.95 million tons of fruit, vegetables and basic grains, with an estimated value of USD 8 million[5].

In the case of the avocado producing municipalities, the VHLCs have been greatly strengthened due to their ability to capture economic resources and generate awareness regarding advantages of the organisations. Each local committee has two delegates from the APEAM (the association of producers and packers geared towards the US export market). These representatives take part in monthly meetings held by each VHLC, in order to inform producers and technicians of phytosanitary measures, market strategies and national and international avocado prices.

Thus, the VHLCs have an important capacity to monitor and assess crops in advance and study and analyse market tendencies, because of their close contact with packers and exporters, their relationship with the state producers' organisation (COMA), which in turn has significant market insight mechanisms, and their control over product transport or movement. Due to these reasons, and prior to negotiations regarding the sales price of avocados from producers to national or export traders, VHLC producers establish a referential base price in accordance to prevailing conditions in the national or export market. Consequently, traders need to adjust or standardise a minimum price for the producer, which may vary in accordance to fruit quality.

2.5 Funding sources for VHLC activities

VHLCs are funded via two mechanisms: contributions from producers in payment for a selection of services received from such organisations, and contributions from state and federal governments.

There are two types of contribution from producers:

- Health Certificate: In accordance to the Official Mexican Standard, each avocado plantation must possess a phytosanitary certificate issued by an authorised professional in avocado phytosanitary management. Each local committee in a general assembly of producers agrees on an annual fee to be paid per hectare. The average annual payment is USD23 per hectare. Taking into account that there are, at present, 61,000 certified hectares registered, this mechanism generates an

income of approximately USD 1.6 million. Possession of this health certificate is essential in order for producers to request that the VHLC issues a COPREF (an official document verifying that the product meets phytosanitary regulations) or fruit transport permit. The COPREF is the document that must be presented in the internal inspection offices (or phytosanitary inspection posts) and the transport inspection posts located on the route between the plantations and packing installations.

- US Export Certification: The avocado export programme implies a certification process for each plantation, accredited by both the Mexican and US authorities. The local committee is responsible for undertaking inspection of plantations in order to check technical aspects of production. Taking into account an average cost of 90USD per hectare (there are 40,000 registered hectares in 2007), the funds raised through this system equals USD 3.6 million[12].

The Vegetable Health Programme, promoted by both federal and state governments, includes the provision of economic support to cover two-thirds of phytosanitary campaign costs, so that producers themselves administer the resources. The rest is funded by the aforementioned fees system (SAGAR, 1999). Operational procedures for assigning public funds to the VHSC is via the plan of work, which includes each VHLC's particular programme, then validated by SENASICA, the federal government body responsible for vegetable and animal health.

With the public and private sector funds obtained by the committees, a range of important tasks are carried out including crop estimates, technical assistance for quality improvement, particularly regarding phytosanitary aspects, pest and disease monitoring via a system of traps placed in the plantations, fruit samples, pre-certification by the VHSC, certification in accordance to the United States Department of Agriculture (USDA), plantation supervision every eight days, and advice on the use of pesticides.

2.6 Success factors and challenges for VHLCs

The success of the VHLCs is the result of legislation and control of fruit transport within a phytosanitary context, consequently allowing product regulation, and avoiding saturation of the national and export markets. These organisations provide strategic information regarding market development with the objective that producers can defend crop prices when dealing with intermediaries.

[12] Michoacan Avocado Producers and Exporters Association, APEAM, 2007.

The provision of technical services has been a determining factor in order to provide follow-up advice in the technological packages recommended for cultivation, which allows fruit quality to be standardised.

Packaging firms have sought to weaken the role played by the VHLCs, lobbying the federal and state governments to diminish their functions, and even requesting revision of the legal framework. Traders and packaging firms are not happy that, through the VHLCs, it is the producers who establish the rules of the game (prices, delivery dates, etc.) always in accordance with market conditions and trends. Packaging firms reject this relative power of producers, for it is normally they who command conditions for business negotiations, without any counterweight.

Any eventual reduction in the role of the VHLCs would place the phytosanitary advances achieved at risk[9]. Recently, the VHSC was cautioned by SAGARPA to abstain from dealing with marketing issues in VHLC meetings, and was warned that if it did not do so, it could lose its official status. Producers responded declaring that they had the right to deal with such issues, as well as the right to adopt the strategies that benefited the strengthening of the sector and avocado production chain the most.

Furthermore, the VHSC has identified that challenges to be met include the self-financing of all VHLCs, and that their actual role should be broadened to include training services, auditing of Good Agricultural Practices (GAPs) and Good Manufacturing Practices (GMPs), certification of procedures in accordance with ISO 9001 quality standards, an increase in laboratory installations for virus-free plant propagation and biological pest control, food microbiology and general analysis, as well as strengthening and broadening the agro-food safety programme.

3 Results obtained from fruit movements regulated by vegetable health committees

3.1 Empowerment of Producers

The strategy of the VHLCs has been a definitive and successful factor for the inclusion of producers in trading procedures, via the use of phytosanitary control, so regulating product offer both for the domestic (75 per cent) as well as export market (25 per cent).

Moreover, the active and inclusive participation of small and medium producers in commercial processes and phytosanitary certification, combined with the growing demand for avocado in national and international markets, and the fruit's natural characteristics (able to stay hanging in the tree for more than two months once it has reached its physiological ripeness), has meant that producers are in an optimum position when it comes to negotiating with national or international buyers, and as regards improved market conditions.

According to COMA, 85 per cent of small and medium producers are included in the VHLC certification and participation process. The remaining 15 per cent either do not have a phytosanitary certificate, or transport their product via the cover of a registered plantation.

3.2 Opening up of international markets for the Mexican avocado

Since 1997, trade with the US has provided another dimension to the production system. Producers and exporters have identified new opportunity niches due to the comparative advantages that México has over other countries, including its geographical proximity, growing demand and reduced logistical costs for avocado exports to the US. Likewise, new export markets have been established and consolidated with Japan, Canada, Europe and Central America.

During the 2005-6 period, a new export record to the US was set of more than 87 thousand metric tons. As from 2007, Mexico may export avocados to the US without any geographical or seasonal restrictions because of the effective work undertaken by the VHLCs, and in spite of the systematic opposition and lobby by US producers and packaging firms, trying to restrict the entrance of Mexican avocados into their country.

3.3 Strengthening the avocado production chain in México

With the opening up of international markets, campaigns have been developed nationally, promoting consumption in Mexico. This has positioned Mexico as the world's primary consumer of avocados with a per capita rate of 10 kilograms.

Due to the advanced organisational level of the chain, 39 thousand direct jobs have been created, along with 58 thousand indirect jobs, encouraging the permanency of the region's population, and attracting workers from other parts of the state and country with the offer of jobs. Annual production value has been estimated at USD 440 million, turning the avocado chain into one of the most important of its kind at State and national level.

To date, the State of Michoacan has 11,400 avocado producers, providing 88 per cent of national production, estimated at 1 million and 40 thousand tons per annum, and making it the world's primary avocado producer.

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5 List of abbreviations

APEAM The Michoacán Avocado Producers and Exporters Association

COMA Michoacan Avocado Commission

CONASIPRO National Avocado Product System Committee

CUPANDA The Cooperative Society for Joint Sales

GAP Good Agricultural Practice

GMP Good Manufacturing Process

NAFTA North American Free Trade Agreement

SAGARPA The Agricultural, Livestock, Rural Development, Fishing and Food Ministry

SEDAGRO The Agricultural Development Ministry of the State Government

SENASICA National Services of Animal and Plant Health, Quality and Food Safety (a decentralised body that is part of the SAGARPA ministry)

UDECAM The Michoacan Avocado Packers and Traders Union

UEAP The Peribán Avocado Packers Union

UMSNH Universidad Michoacana de San Nicolás de Hidalgo

USDA United States Department of Agriculture

VHLC Vegetable Health Local Authority

VHSC Vegetable Health State Committee

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