

Contents lists available at [ScienceDirect](#)

Journal of Rural Studies

journal homepage: www.elsevier.com/locate/jrurstud

Family farmers and major retail chains in the Brazilian organic sector: Assessing new development pathways. A case study in a peri-urban district of São Paulo

Julien Blanc*

UMR 5145 Eco-anthropologie et Ethnobiologie, Département Hommes, Natures, Sociétés, Muséum National d'Histoire Naturelle, CP 135, 43 rue Cuvier, 75005 Paris, France

A B S T R A C T

Keywords:

Family farming
Supermarkets chains
Organic horticulture
Agro-ecology
Social development
Peri-urban
São Paulo (Brazil)

The expansion of the organic sector in Brazil is seen as a leverage for the social emancipation of the small family farmers. Next to the traditional alternatives circuits of organic food and farming, new powerful capitalistic actors, such as supermarket chains, are rapidly entering the Brazilian organic arena. Can family farming benefit from the development of these “conventional” commercialisation circuits in the organic sector? Research undertaken in 2007, in a green belt rural community of São Paulo, shows how family farmers may have benefited from the implication of large retail chains in the organic sector and how an economically and ecologically outstanding agriculture may arise from these circumstances. However, we highlight the crucial role played by social regulation: only strong solidarity between farmers and the implication of technicians, militants and researchers in the process made it possible to counter the negative effects of the liberal logic governing the development of organic farming via the major retailers. Still, as tougher competition is expected on the regional organic market, the development of short supply chains involving “committed” consumers and the broader integration of the local farmers in networks of organic militancy appear crucial. It would guarantee a continuous enhancement of the local human and social capital, reinforce an emerging process of internal conversion and allow for a stronger social regulation of the future local development pattern.

© 2009 Elsevier Ltd. All rights reserved.

1. Introduction

To favour an environmentally friendly and socially equitable agriculture became an issue of great importance both in the Northern and Southern countries. Organic farming, in this respect, gives cause for hope. Bodies such as the FAO or the IFAD (El-Hage Scialabba, 2007; IFAD, 2002) see in the booming organic movement in the countries of the South a means of reconciling the development of small-scale agriculture, the revitalisation of rural communities and environmental protection. This is also the point of view of the Brazilian government which passed a law in 2003¹ with the aim of favouring all forms of ecological agriculture, whether benefiting or not from the organic certification (Bellon and Abreu, 2006). In Brazil, the promotion of these agro-ecological alternatives aims to provide new perspectives to part of the 13 million working in family agriculture, who until recently did not widely benefit from the

agricultural and rural development policies (Cabello-Norder and Bergamasco, 2001; Ferreira and Zannoni, 2001).

Many studies carried out in developed countries (Europe, North America, Australia) demonstrate the social and environmental benefits associated with organic farming: the preservation of the environment and cultural landscapes (Mansvelt et al., 1998; Hansen et al., 2001; Lotter, 2003), the growth and stabilisation of farmers' income (Edwards-Jones and Howells, 2001; Rigby and Cáceres, 2001; Nieberg and Offermann, 2002) and positive externalities on the rest of the rural economy through, notably, organic farming's potential for integration into other sectors of activities in rural areas (tourism, environmental preservation activities) (Knickel and Renting, 2000; Pugliese, 2001; Darnhofer, 2005). Some authors also note that this sector enables a better distribution of power between the actors involved in the production–distribution chains, that it favours localised processes of innovation largely involving the farmers and enables these to form new relations with consumers, thus entailing a whole set of phenomena contributing positively to their emancipation (Pugliese, 2001; Morgan and Murdoch, 2000).

However, while these positive aspects are widely highlighted when they arise from “alternative” practices of exchange and economic and social development, they remain controversial when

* Tel.: +33 6 71 46 38 15.

E-mail address: jblanc@mnhn.fr¹ Law 10.381 dated 23/12/2003, regulated by decree n°6323 dated 27/12/2007.

organic farming is developed in more “conventional” circuits involving actors with strong financial capital² (Hall and Mogyoro, 2001; Guthman, 2004; Smith and Marsden, 2004; De Wit and Verhoog, 2007). Indeed, this phenomenon poses the question of founding “ecological” principles being led astray as well as that of the reproduction of negative social effects associated with the Green Revolution (marginalisation, land concentration, rural exodus). Banks and Marsden (2001) and Guthman (2004) argue for example that the more the large retail chains and agro-business in general get involved in this sector, the less small-scale agriculture and local development will benefit. Smith and Marsden (2004), for their part, show how, in the United Kingdom, the big retailers use their economic dominance over the farmers in the organic sector as elsewhere to manipulate prices, influence contracts to their advantage and transform the rules of the game as the sector gradually evolves. For these authors, organic farming will only continue to demonstrate beneficial effects socially and environmentally if real regulations involving the State, the major retailers, the consumers and the farmers are put in place.

In Brazil, the organic sector has undergone broad penetration by actors with strong financial capital in recent years, as is notably illustrated by a considerable development of long supply chains. Since the end of the 90s, the export sector and, in the internal market, the major retail sector have in fact won out against the short supply chains and the militant forms of market exchange³ which dominated up to then (Guivant, 2003). While this phenomenon was to a large extent behind the strong growth in the sector, it also raises major concerns (Carvalho, 2000; Lima and Pinheiro, 2001; Almeida, 2002; Brandebourg, 2002; Andion and Serva, 2004). What will be the consequences of increased links between family farmers, large supermarkets and other powerful retailers and food processing companies operating on the internal and export markets?

Although these concerns are shared by a large community of researchers, various civil society associations and certain governmental development bodies, they have not given rise to in-depth studies of the phenomenon. Thus we propose here to submit the results of research undertaken in 2007, in a “rural neighbourhood” (Veravã) of a São Paulo green belt’s district (Ibiunã). In this area, where the local economy still relies heavily on agriculture, 90% of the farmers (50 of the 60 farming families) are organic producers, specialized in horticultural production. Organic farming began there in 1995 and developed very quickly due to close ties with the major retailers.

Our research implied a full-time immersion in the community, for four months. Data were collected through informal discussions with farmers and non-farmers, daily observations of people activity and through more formal surveys using semi-structured – recorded – interviews with farmers (25), on-farm labourers (4) and agronomists from private and public extension services (5). In-depth surveys were conducted with 16 of the 25 initially interviewed farmers, involving repeated visits and, for five of them, participant observations as we worked on their farm from three to five days. Meanwhile, we took part in farmers’ associations meetings (10) and in several community meetings (4) organised by activists intending to mobilize community members on territorial development matters. Finally, we met various actors involved in the State organic sector – including two cooperative commercials, two certification bodies’ executives and many researchers.

In this article, we will first of all rapidly retrace the history of organic farming in Brazil and highlight the actual major role played by the major retailers in this sector. In the second part, we develop our case study to demonstrate the complexity of the dynamics at work in the development of organic farming within this rural neighbourhood. The third and last part will consist in a more thematic analysis of this case study, allowing a discussion on both future local challenges and broader issues regarding organic farming development in Brazil.

2. The development of organic farming in Brazil

2.1. From the influence of activists to the institutionalisation of organic farming

The principles of organic farming were introduced into Brazil at the beginning of the 70s, centred on different currents of agro-ecological thought, such as biodynamics, permaculture, or natural agriculture. Up to the mid-90s, this agriculture underwent limited expansion (Darolt, 2002). As part of a social project, the Brazilian organic movement of the 80s promoted an “alternative” agriculture intended to lift small-scale farming out of its economic slump. This first phase of expansion for the movement, which broadly encouraged face to face contact between consumers and producers through systems of farmers’ markets or direct sale, was principally organised by militant civic (ONGs, associations) and religious movements (Brandenburg, 2001). The Brazilian government, for its part, for a long time considered the organic movement as a marginal movement with no future. However, under pressure from activists and producers’ organisations, but also from companies attracted by the economic opportunities linked to this sector (processing, exports), the government progressively began to take an interest in it and is establishing organic regulations since 1994 (Schmidt, 2001; Medaets and Fonseca, 2005; Lima and Pinheiro, 2001). In 2003, these culminated in the introduction of legislation in which the government asserted its willingness not only to regulate organic production but also to make it a lever for the development of small-scale agriculture (Bellon and Abreu, 2006). In this same period, the Ministry for Agrarian Development (MDA) declared its broad support for organic farming, also as a social project oriented towards small-scale agriculture. Funding was made available and the ministry began helping associations to get set up while the main bodies involved in rural development, whether answerable to the Federal government, the states or both, launched support programmes for organic farming⁴ (training, organisational assistance, technical assistance). At the same time, and while the movement was gaining in scope, various support networks were formed on a Federal level, notably including the National Network for Agro-ecology in 2002, or the Brazilian Association of Agro-ecology in 2004. The more traditional associations such as the Landless Workers Movement and the Family Agriculture Federation also joined in on the project and today position agro-ecology and certified organic farming at the heart of their strategies.

⁴ The SENAR, “Serviço Brasileiro de Aprendizagem Rural” (National Rural Training Service) and the SEBRAE, “Serviço Brasileiro de Apoio as micro e pequenas Empresas” (Brazilian Micro and Small Company Support Service) organise training courses and assist the organisation of organic producers in an increasingly active way (Carvalho, 2003). In the state of São Paulo, the ITESP, “Instituto de Terras do Estado de São Paulo” (São Paulo Land Institute) and the CATI, “Coordenaria de Assistência Técnica Integral” (Integrated Technical Support Coordination) have also developed support programmes of this kind.

² Large retail groups, sellers of inputs of all types (seed, manure), large scale producers (agri-businesses).

³ i.e. Commercialisation systems involving more than pure commercial transactions, promoting new social bonds and solidarity patterns between producers and consumers.

2.2. The arrival of actors with strong financial capital: growth and structuring of the sector

The statistical data concerning the organic sector in Brazil do not allow for a reliable portrait of production increases (Martins et al., 2009; Guivant, 2003). Whereas no figures exist for the 1990s, Darolt (2002) mentions 100,000 ha planted in organic crops for the year 2000 and 275,000 in 2002. The Biodynamic Institute estimated that in this period approximately 7000 farmers were involved in organic farming, representing for the most part small and medium-sized farms, responsible respectively for 10% and 80% of certified production (Guivant, 2003). At this time, the annual growth rates of “organic” surfaces in the country was estimated at 50%, with Brazil ranked 34th in the world in terms of organic production volume. In 2005, the country had 800,000 ha of organic crops, with 20,000 producers listed by the ministry for agriculture (Martins et al., 2009) and was ranked 5th in the world in terms of production volume. It jumped to 2nd place behind Australia in 2007, when the government decided to include the 5,000,000 ha subject to extractivism in the figures (mostly sustainable use of natural resources in protected areas in the Amazonian and Atlantic forest). According to Abreu et al. (in press), without these last, the organic area was then of 889,000 Ha, corresponding to 0.25% of the total national agricultural area.

The organic sectors which developed the most rapidly are those oriented towards exports and, on the internal market, that of supermarket retail. Since 2001, Brazilian exports to Europe, North America and Japan, principally, absorb around 70% of the total volume of products certified as organic in Brazil. These concern a broadly diversified range of products (sugar, oranges, coffee, soya and other grains, etc.). The internal market, for its part, is especially important for fresh fruit, legumes and vegetables (FLV), although a trend of diversification seems to have been underway for some years now, notably with a progression in the marketing of processed foodstuffs. Greater São Paulo was considered in 2003 as representing on its own half of the national consumption of organic products. In terms of production, the city’s green belt would appear to account for 30% of the country’s horticultural production (Schultz, 2006; IEA, 2006).

In the context of an increasingly competitive and globalised market, the development of long supply chains is progressively supplanting the short supply chains of the early stages. According to the Brazilian supermarkets association (ABRAS) the sale of organic products in the supermarkets has been experiencing 25% growth per year for several years now. In 2006, in the states of Rio and São Paulo, major retailers were responsible for around 70% of the organic market (FLV). In São Paulo two of the biggest retailers in the country (“Pao de Açucar”⁵ and “Carrefour”) were then accounting for 73% of fruit and vegetable sales in the city (Martins et al., 2009). The concentration of the supermarket sector which has occurred in recent years in Brazil is recognised as a driving force for the internal organic market. In fact, practically all the big companies today sell organic products (and namely FLV) whereas the smaller supermarket chains they have absorbed only did so rarely (Schultz, 2006).

Intermediary companies are responsible for the logistics of the sector, acting as a link between the producers and the major retailers. These are mostly groups formed on a cooperative basis, created by farmers with the combined objective of aggregating value on organic product and establishing access to the big retailers. However, most are to a great extent cut off from their

bases and behave like real companies with their own business logic. In the state of São Paulo, in 2005, the principal intermediary companies were Horta e Arte (H&A), which holds 53% of the market, Cultivar (24%), Fazenda Santo Onofre with 12% and ten others who together account for the remaining 11% (Martins et al., 2009). From now on, H&A has lost market shares, and, in 2007, Cultivar was leading the organic intermediaries sector.

In this context, the producers only receive 14% of the total value of the product, 31% going to the intermediaries (suppliers) and 55% to the supermarkets (Guivant, 2003). This distribution of the value all along the chain is inverted in relation to conventional farming, where the producers receive 43% of the total value of the product, compared to 25% for the intermediaries and 32% for the supermarkets. The supermarkets therefore apply much higher margins for organic produce whereas they take few risks since in most cases the cost of non sold products is paid upstream. The reality is that it is always the producers and not the intermediaries who bear these costs. Still, in spite of this unfavourable price structure, farming organically stays interesting for the producers, as the organic fruits and vegetables are sold three to five times the price that of the conventional goods in the retailers’ shops. But, while the supermarkets currently still depend largely on suppliers due to a demand which is still higher than supply, the fear of seeing the supermarkets apply more pressure on the farmers in the years to come is particularly great (Carvalho, 2005; Planeta Organico, 2006).

3. Organic farming in Veravá: trajectory and development

3.1. Presentation of the neighbourhood and its history

The district of Ibiuná is located on the west-border of the Metropolitan region of São Paulo (cf. Fig. 1), which constitutes the main economic pole (industry, services, finances) and the largest consumer market of Brazil. The district counts 64,160 inhabitants, of whom 43,000 live in the rural zone. With nearly 1300 agricultural establishments listed in 2003, agriculture generates only 27% of Ibiuná’s GDP, whereas services and industry represent respectively 40% and 26% of this last (IBGE, 2003). However, agriculture, mainly family farming, employs and sustains – directly or indirectly – most of the population in many rural areas of the district.

The economic activity of Ibiuná municipal area mainly concentrates in the town of Ibiuná and along the only important axis of communication connecting the east with the west, both located in the northern part of the municipality. Situated at the end of a secondary communication axis that irrigates all the rural neighbourhoods of the south-east municipal area, and bordered with a dense and mountainous forest area (Serra do Mar) which separates it from the south coast of São Paulo State, Veravá is characterised by its outlying location in Ibiuná’s district (cf. Fig. 2). As a result this area experienced a very late process of human occupation. Indeed, Veravá started to undergo a severe deforestation only in the 20s or 30s of the 20th century, and until then was largely preserved from human exploitation. The access road to Veravá was tarred in 1983–1985 and public electricity distribution arrived in the neighbourhood only at that same period.

The “rural neighbourhood”⁶ of Veravá district has around 1500 permanent inhabitants, counting 600 adult individuals⁷. It extends over approximately 25 km² and shows altitudes, ranging between 840 and 1214 m. Its proximity to the Atlantic coast result in a humid and temperate climate characterised by hot (25–30°) and rainy summers and cool, dry winters. In this territory with a strong

⁵ Which was bought in 2007 by Casino and uses two outlet names: Pao de Açucar and Extra.

⁶ Translation of “bairro rural”.

⁷ No demographic data specific to this geographic area exists.

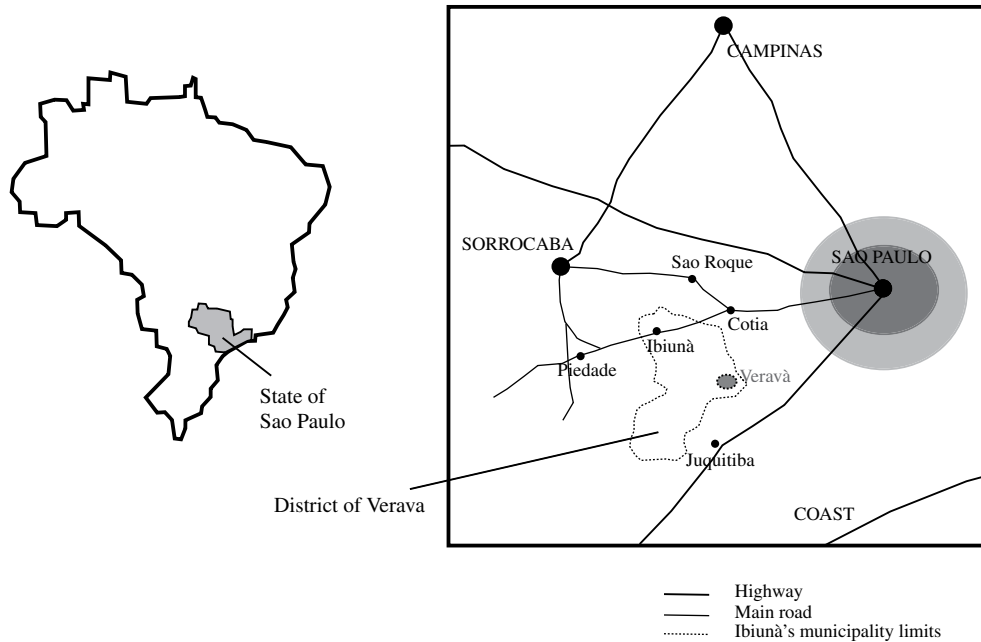


Fig. 1. Localisation of Verava and Ibiuna's district.

forestry presence,⁸ agriculture still constitutes the dominant activity. Small agricultural properties, where, since the mid-70s, the only activity has been horticultural production, stand alongside large forestry plantations of exotic pines, a few “fazendas” (50–250 ha) devoted to livestock farming, maize production and/or logging (eucalyptus, pines) as well as many secondary homes. Veravã is increasingly sought after by inhabitants from São Paulo who come to spend their weekends and holidays there. As a result, the area is experiencing a progressive increase of urban pressure, with secondary homes and tourist structures becoming more and more numerous.

Veravã currently constitutes one of Ibiunã's main centres of organic production. 50 of the 60 families in the neighbourhood are organic producers, accounting for 60% of Ibiunã's organic production.⁹ The men and women who run the farms are for the most part aged between 30 and 55. They work on land inherited from their parents and their grandparents, Portuguese, Italian, Spanish and German immigrants for the most part, founders of the “community” of Veravã at the beginning of the 20th century. In the beginning of the 1960s, agriculture began to emerge locally as an income-earning activity, to a great extent taking over from an economy based on logging. The agricultural systems were principally launched on potato, taro¹⁰ and arracacha production.¹¹ With the capital as its designated market, this production grew with heavy reliance on fertilizer, herbicides and insecticides, according to the model advocated at the time by the Green Revolution. But in the early 70s, the local potato production went into crisis in the face of growing competition from other national production localities. Those who could afford to invest launched themselves in specialized horticultural production, driven by the growing demand of the Capital market at a time when the city's green belt was being progressively pushed back. Others sought work in the fazendas and

the emerging secondary homes, or among the farmers who had best survived the crisis. However, increasingly high production costs and the growing competition on the markets again left Veravã's farmers facing a new economic slump at the end of the 80s. They were no longer able to sell their products and, once again, a good number turned towards non-agricultural solutions for income by finding employment wherever they could.

3.2. The birth of organic agriculture, a breath of new life for the community

At the end of the 80s, militant civic and religious (catholic) movements in the region met in Veravã in order to implement a development project for its inhabitants. Education, health, environment and the promotion of town-countryside solidarity made up the four pillars of this project. A marketing system linking the local farmers to disadvantaged communities in the suburbs of São Paulo was set up and thanks to funding from foreign charity institutions a Family Agricultural School¹² (FAS) was built in Veravã (1993). The same year, the meeting between the project leaders and two leaders from the Organic Agriculture Association (AAO), reinforced the orientation of the programme of social emancipation towards “ecological” agriculture. Agronomists were hired and organic agriculture classes organised. A dynamic of collective learning was developed around a dozen or so farmers, where formerly conventional farmers and inexperienced agronomists explored, together, the practical foundations of organic farming. This collective dynamic revitalised the local community whose other major vector at time was the FAS where

¹² The Family Agricultural School follows a principle of alternated education which offers underprivileged youths teaching which is both general and technical, the technical instruction being principally related to agricultural activity. This type of school, inspired by French and Italian models which appeared in the 30s was developed in Brazil by the Jesuits from 1969 onwards. The objective of these schools is to cater both for young people's educational needs and the development needs of rural communities, taking into account the reality of the socio-economic conditions and the important question of keeping local populations on the land (Nascimento, 2004).

⁸ Secondary formations of dense rain forest of variable age.

⁹ With 10% of Ibiunã's 1245 listed agricultural establishments having adopted this mode of production.

¹⁰ *Colocasia esculenta*.

¹¹ *Arracacia xanthorrhiza*.

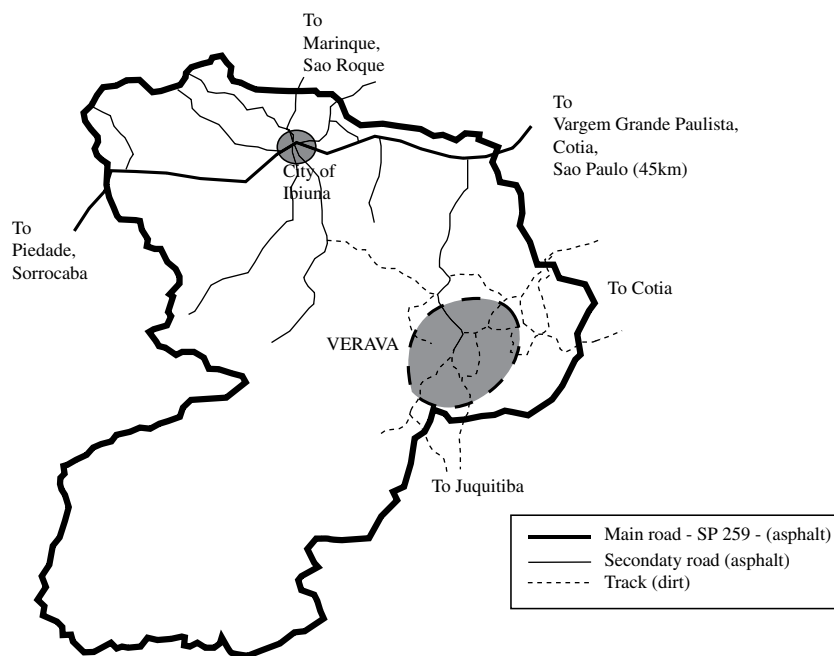


Fig. 2. Ibiuna's district and Verava.

children followed general and applied teaching and which constituted a centre for playful activities and exchanges open to different generations.

With production developing, the question of market outlets became increasingly pressing. The system of direct sale remained embryonic, showing an all the more limited potential due to the fact that other farming communities in the Ibiunã district were also practising it. In 1995, two neo-rural farmers from the neighbouring district, experienced in organic production, were invited to come and see the experiment. Convinced of the programme's potential, they set up a retail network with supermarkets in the capital, signing commercial agreements with "Carrefour" and "Pao de Açúcar", two of the biggest retail names in the state of São Paulo. In doing so, they became pioneers: their contract with these supermarket chains marked the arrival of major retailers in the organic food sector in Brazil.

The development of these retail outlets created powerful demand locally and represented an important turning point for organic farming in Veravá. Whereas up to then, the large majority of the farmers in the district remained spectators – often critical – to a process which had yet to prove its worth economically, the arrival of the major retailers marked the beginning of a massive enthusiasm among farmers. While at the end of 1996 they were still only 11 with certification (individual, AAO) and selling in the organic circuit, already 20 had begun the conversion process. Four years later, in 2000, 50 of them, corresponding to 80% of local farmers, had joined in. In the meantime, following the initiative of the two protagonists of the retail network a farmers association "Horta e Arte" (H&A) was created (at the end of 1996) with the purpose of organising increasing production and to manage distribution to supermarkets in the capital.

3.3. An economically driven development

Between 1995 and 1999, the space opened by H&A grew steadily. Demand from large supermarkets was booming and, at the time H&A only encountered weak competition on São Paulo's

market. The constraints imposed by major retailers in terms of regularity of supply and quality standards (visual and calibre) remained weak and the farmers sold, at a good price, their entire production. The production volumes and the diversity of the products cultivated progressed regularly in all the farmers' yard. This prosperous period resulted in the accumulation of capital on the farms (investment in equipment, land purchases) and by a marked improvement in the families' living conditions (children's education, material conditions, health care, etc).

However, personal conflicts between the activists involved in the original project put an end (1998) to the socio-environmental emancipation programme in the neighbourhood. The FAS, the environmental education programmes, the training courses in organic agriculture and the communal activities were terminated. Meanwhile, the farmers took less and less part in the decision-making of the association (H&A) and this last, led by its two neo-rural protagonist, became progressively a real firm, acting as an intermediary between producers and supermarkets. The agronomists originally involved in the program went to work for this organisation, which started providing technical assistance for producers. H&A also developed an "inputs" sector offering farmers everything required for "organic" production (seed, "organic" fertilizer, repellent, etc.) while the increasingly experienced agronomists perfected recipes for "bokashis" or "organic composts", some of which components farmers bought from the organisation¹³. Finally, in order to ensure the loyalty of its suppliers, "management" made the choice of establishing a principle of exclusive sale, reinforced a few years later, in 2000, by the implementation of a group certification (IBD) in its name, preventing the farmers from selling their products without its prior agreement.

¹³ Let us recall that this works two ways: for at the time it was difficult and costly to buy organic inputs in Brazil; this was therefore a good opportunity offered by the company, all the more so that the farmers benefited from a delayed payment.

3.4. Simplified production systems

The production systems were conceived and developed with the aim of responding to supermarket demand. This meant, at the same time, to produce large volumes to respond to a rapidly expanding demand, to have the products match specific standards of size and visual quality, and to supply the market as regularly as possible with a large range of products apart from any consideration of seasonality.

Certainly, farmers respected the certification bodies' specifications. Mainly, the land was worked along contour lines, the farmers only used authorised "natural" inputs and respected the basic principles of crop rotation. Yet, by relying on cognitive resources and representations they had inherited from the conventional production model, supervised by agronomists themselves with little experience, and quickly subjected to market pressure, they implemented production systems which were extremely simplified in relation to the principles specific to agro-ecology (Roberts and Hollander, 1997; Gliessman, 1998; Douguet and Féret, 2001). First of all, they set up specialized horticultural systems,¹⁴ which, as such, raises questions where the principles of organic farming are concerned. Secondly, their systems heavily rely on irrigation use and, for some of them, on green house cultivation. These two improvements aim at producing as independently as possible from seasonal climatic variations and climatic accidents. Irrigation became systematic and constituted a condition *sine qua non* for the farmers to be able to cultivate most of their vegetables all year long and obtain between three and five harvests per year, per plot according to the duration of the crop cycles of the vegetables participating in the rotation and whether or not a fallow period was included in the cycle. Yet, even in these conditions, the high frequency of violent rains and the strong variations in temperature which characterise the summer season reduce the overall productivity of the crops in summer, and particularly some highly sensitive ones (such as spinach, rocket, watercress, and some varieties of lettuce and courgettes). Thus some farmers have from the beginning invested in the construction of "open" greenhouses, whose principal function is to protect the crops which are sensitive to violent storms and to obtain, in the summer season, sufficient yields, while matching the visual quality and sizing standards demanded by the supermarkets. Using irrigation and greenhouses thus enables farmers to offer an entire range of products in the summer season otherwise widely loss-incurring on the regional FLV market and to get a good price for them.

Finally, the farmers' low use of green fertilizer (namely legumes like common pea, corn or black oats¹⁵) and of hedges inside the cultivated land (between the plots) illustrate a conventional conception of organic farming too. Indeed, unconvinced of the efficiency of green fertilizer and reticent to a practice which causes them to lose productive surface, they have favoured the use of inputs, such as chicken manure, castor bean flour (*Ricinus communis*), bone meal (cattle), different types of "bokashis" and bio-fertilizers¹⁶ which they have moreover often used excessively, as the results of soil analyses carried out by EMBRAPA agronomists have shown (Bellon et al., 2005). Equally, few of them marked out their cultivated lands with hedges, although most were informed of

their virtues in preventing erosion and the spread of disease, or in pest control. They also favour other means here, such as abundant use of neem oil¹⁷ (bought in commercial outlets) and (home-made) garlic and hot pepper extracts in the case of pest control. Both these aspects illustrate a preference for the curative over the preventive, for selective interventions which do not interfere with short-term productivity objectives, over more systematic interventions with less direct but more durable impacts. This trend highlights a reductive conception of the functioning of agro-ecosystems associating simple and linear causal explanations with agro-ecological phenomena, and whose authors consider being typical of the models of conventional thought in agrarian systems (Gliessman, 1998; Rickerl and Francis, 2004). This conception contrasts with a more systemic vision where complex interactions and multiple causalities constitute the rule and which places itself more broadly in an agro-ecological conception of agrarian systems.

3.5. A system in crisis: marginalisation, schisms, restructuring

The new century (2000) marked the beginning of a period of crisis and resulted in major changes of trajectory for organic farming in the district.

From 2000, new intermediaries of a regional scope began to appear in the "organic" sector (Cultivar, Santo Onofre, etc.). H&A had to face competition that hadn't existed previously. Moreover, the new competitors enjoyed a stronger negotiation position with the major retailers. All, without exception, were in fact large scale intermediaries, operating in the conventional circuit and having recently developed an "organic" branch, a double approach which allowed them to better negotiate their market share in this sector. To keep up, H&A was forced to provide better supply to its retailers during the summer season (the slack season) than it had up to then, and choose to expand its network of suppliers by extending its base to other localities. As a consequence, Veravá's farmers lost large market share in winter (the overproduction season) and were urged to make major efforts, not only to boost their supply in "traditionally" loss-making products for the summer market, but also to improve the overall quality of their products, a factor which the major retailers were to become increasingly strict on.

As the concurrence became tougher, some farmers couldn't keep up with the pace and were largely abandoned by H&A. These, for the most part were older or, at least, less dynamic farmers than average. Their "performances" were already far from optimal, but in a context of weak competition, they almost didn't suffer. H&A withdrew part of their production quotas and these farmers entered a dynamic of recession. They were obliged to let go of employees and send their children to work for other farmers, or to put an end to the fee-paying studies that the latter had begun. They progressively lost all means of investment (irrigation, tractors, greenhouses) and even of working (purchases of seed, seedlings and inputs) and therefore of keeping up with an increasingly high-skilled and competitive practice of organic farming.

On the contrary, others, among them the most ambitious, dynamic and innovative farmers, rebelled against these new conditions. Having been among the first to change to organic farming and having from the beginning made efforts to cultivate off-season produce of good quality, they felt tired of the relations they had with a company whose leaders they qualified as "paternalistic" and "dishonest". This little group of ten farmers broke with the H&A network and formed their own association in 2002 (Associação de Produtores Orgânicos de Veravá- APROVE). They

¹⁴ A horticultural production specialisation between six and fourteen different products are cultivated depending on the farms, including various types of leaves (lettuce, rocket, watercress) and cabbage (cauliflower, red and green cabbage), broccoli, courgette, various tubers (taro, arracacha, potatoes), carrots, radishes, beets, parsley and coriander, corn, legumes, spinach and tomatoes.

¹⁵ *Avena nigra*.

¹⁶ Biofertilizers include rhizobia, other types of bacteria which fix nitrogen, and certain mushrooms.

¹⁷ *Azadirachta indica*.

accepted the invitation of a regional cooperative (CAISP) to constitute its “organic” branch while at the same time turning towards the other retailers who were beginning investing the neighbourhood. They developed their own group certification and a system of grouped purchases of inputs. After one or two difficult years, they began to fully benefit from the increase in the local presence of various intermediaries and from the growth of the CAISP. Today they are the organic farmers in Veravá who have done the best for themselves.

Still, the majority of the Veravá horticultural producers (40) continued to produce and to market their produce through H&A. In this main group, the farmers were henceforth more or less favoured by the company according to their ability to respond adequately to market demands. As a result, some continued to benefit from their situation under the company, in part to the detriment of their colleagues, whose market share they took over. But a global dissatisfaction among most of the farmers swelled progressively from then on. An increasingly large proportion showed itself to be unhappy with their relations with the latter and considered their production quotas too limited (volume). Furthermore, most complained of the gap between the announced quotas and the firm purchases made by the intermediary, a phenomenon that regularly caused them to throw away part of their harvests. Prevented by their exclusive contracts with H&A from dealing with the numerous intermediaries who had arrived in the locality, some decided to break away, following the example of their already emancipated colleagues. It was in this way that in 2007,¹⁸ a new association was created – Associação dos Produtores Unificados (APROUNI) – and only 23 of Veravá’s farmers (out of the 50 associated in 2000) continued to be faithful to the company. The latter, under threat, began revising its strategy, re-offering contracts to the first dissidents, but this time, outside of any exclusive relationship. The creation of these collectives constitutes a starting point for new commercialisation strategies, as most of the farmers intend in their respective frames to launch alternative markets initiatives, namely restaurants, hospitals, schools and individuals. In 2008 the APROUNI’s farmers had begun to deliver baskets to a residential neighbourhood near São Paulo and were intending to develop this new marketing channel.

Table 1 shows the current organic farm structures in Veravá. Knowing that all the farmers started from nothing (exploited area in organics = 0) in the 1990s, the diversity expressed in the table illustrates the essential features of the contrasting trajectories (and benefits) of Veravá’s farmers in the organic market gardening sector (cf. Table 1). The smallest units, heavily relying on family labour, are whether late entrants in the organic production (1998), farmers who less benefited from the organic development, or farmers that suffered decrease in production volumes from 2000.

3.6. Towards more complex production methods and labour organisation

All the conditions came together, between 1995 and 2000, for rapid growth of production volumes and for a “entrepreneurial” agriculture to emerge on certain farms: the strong pressures exerted by the intermediary to respond to the demand of large supermarkets, limited added-value for the products through this marketing channel and the implementation of technical systems with high production costs all worked together to favour a race for production volumes. Today (2007–2008), facing a booming market, all the farmers, even the biggest, continue to want to increase their production volumes. For farmers able to supply good summer

Table 1

Farm structures in Veravá. N = 32, data collected January/February 2007.

Exploited surface class (in Ha)	%	Average number of workers (max)	Including family workforce
0–2	34.37	3.17	2.45 i.e. 77%
2–5	40.62	5.05	2.81 i.e. 55.7%
5–10	12.5	7.74	3.12 i.e. 40.32%
10 and +	12.5	9 (12)	2.75 i.e. 30.5%

harvests, combining quantity, diversity and quality in the produce, the growth potential remains high.

Yet, in stark contrast to the prior ten years (1995–2006), it is no longer by increasing their cultivated surfaces that farmers seek to swell their production volumes. Most of them, and particularly the “biggest” one are realising that the systems they developed show low productivity per square meter and are very costly, progressively calling into question their economic and agronomic viability. The high increase in input costs in recent years¹⁹ and the agronomic problems progressively emerging (soil problems and increase in diseases)²⁰ are direct evidence of the unsustainability of their farming systems.

Thus, new strategies are emerging. While for the moment they are not expressed with the same intensity among all farmers, they are quite quickly spreading within the community and progressively outlining a profound change in the organisation of production systems and in part of the farmers’ conception of their activity. Although investing in the construction of open or closed greenhouses²¹ remains an essential objective, henceforth it is combined with both a clear intention of farmers to produce a greater part of their inputs themselves,²² and to fine-tune their practices by working more closely on the characteristics of the plants and the milieu. Here and there, each at his or her own pace, the farmers in Veravá are in fact progressively empowering themselves to better control their use of irrigation, inputs and tractors, or by improving the organisation of their crop rotations. One of them, particularly innovative in many agronomical aspect, is even coming back to the animal-drawn equipment for some tasks. Alongside this, all are speaking of adopting new practices and some are doing so already: developing the use of “green fertilizer”, integrating hedges into their crops fields, and learning to better benefit from the presence of weeds in their plots.²³ Let us point out moreover that these changes are henceforth supported by most of the agronomists who provide them technical assistance, notably among those working for H&A who, while progressively distancing themselves from the difficulties being experienced by the company, are becoming aware of the negative consequences of their very “conventional” approach up to that point.

Among the farmers cultivating more than 5 Ha, this general evolution in production methods is accompanied by a change in the on-farm working organisation, and more particularly in the management of the workforce. Henceforth (2006), all favour a system of tenant farmers, to the detriment of the day labourers

¹⁹ 70% increase between 1999 and 2006 according to the accounts of both the farmers and the agronomist technicians.

²⁰ See notably Bellon et al., 2005.

²¹ The option can be taken, more rarely, of building light but closed greenhouses where the aim will also be produce, in winter, crops sensitive to cold, principally tomatoes and cucumbers.

²² Bokashis, biofertilizers, compost and natural substances used to repel different types of insects – Based on hot peppers, garlic, or oil extracted from native herbaceous or tree species including the “Santa Barbara”, *Copaifera Langadorffioes*, which replaces neem oil.

²³ Simplified translation of the concept of “mato” in Brazilian portuguese.

¹⁸ Beginning of the process October 2007; finalisation July 2007.

who up to recently still formed the greater part of the workforce on their farms. The tenant farmers, generally employees who already proved their skills on the farm are in charge of one or several crops. They manage and pay their own workforce, made up of employees or members of their families, whereas all other costs (inputs, tractor, irrigation, seed and seedlings) and functions (organisation of production and administration of the farm) remained the remit of the farm manager.²⁴ Resorting to tenant farming appeared to be an obligatory solution in order to increase productivity and reduce production costs, however it also served to guarantee the proper functioning of large farms. Indeed, as organic horticultural production is particularly demanding in labour, farm manager have to employ a large daily workforce, and quickly runs into difficulties managing his farm. The poorly paid day labourers²⁵ show little commitment to the work. As the farmers attest, the accumulation of day labourers leads to an accumulation of dysfunctions and imperfections harming the production results both in term of quality and quantity. They emphasize that this form of organisation leads to an increase in production costs and a concomitant drop in yields. In contrast, resorting to a tenant farmer, whose salary depends directly on the quality of his work, strongly benefits the productivity of the crops and the quality of the harvested products. At the same time, the farm manager is to a great extent free of the daily organisation of the work, which he entrusts to the tenant farmer or farmer(s), and can concentrate more largely on the land which he continues to work himself with his own employees, as well as on the overall administration of the farm. Globally, resorting to tenant farming allows fine-tuning the agricultural practices, as the farm gets organised in smaller units that are managed by tenant farmers having more time available to pay attention to the agro-ecological processes.

4. Discussion

Organic agriculture came about in Veravá at the beginning of the 90s in a local context of serious economic crisis. Promoted by activists in a perspective of social renovation, the organic farming project notably sought to advance the case of an alternative, more autonomous, agriculture and to construct new spaces of exchange between farmers, consumers, technicians, researchers and activists. Yet, the economic dimension quickly took over from the movement for social renewal. The local community did not integrate the core values of the initial political project and the development of organic farming in Veravá was not accompanied by a real questioning of the forms of existence of small-scale agriculture.

However, did such conditions for the development of organic farming, driven by economic motivations and devoid any particular socio-environmental values and ideals in fact lead to a negative result?

4.1. Shared benefits vs. uneven social results

The alliance with major retailers was the factor guaranteeing a rapid increase of production. Apart from this powerful retail channel, one can hypothesise that the increase in production would not have been as rapid and all of the farmers would probably not have benefited as strongly and as quickly. Some might never have benefited at all. As a powerful economic driving force, this marketing channel granted new perspectives to the men and women of Veravá. It enabled the members of the

community to emerge from economic difficulties and offered all of them far better living and working conditions, while maintaining the families on the land. It enabled the farmers to develop solid and relatively stable organic production in Veravá, with only one reversion to conventional farming (out of 50 families).

However, the increased competition imposed by major retailers in 2000, and widely reinforced by the monopoly position occupied by the intermediary (H&A) forced the least innovative and dynamic farmers, essentially the older ones, into the margins of the process. No longer able to keep up with growing demands in terms of quality standards and regularity of supply, today these farmers are in great difficulty. They suffered from the liberal logic which characterises the functioning of the major retailers, encouraging competition between suppliers and favour those who respond best to its demands (Lendrevie et al., 2003). Admittedly, the sidelined farmers – ten out of a total of fifty – only constitute a small part of the whole. Yet, their marginalisation constitutes the extreme expression of the onset, from 2000 on, of significantly more uneven individual socio-economic benefits associated with the development of organic farming than had existed previously. Despite the creation of collectives in recent years (APROVE/2002, APROUNI/2007) illustrating a certain trend towards the tightening of intra-community ties, the marginalisation of some farmers in the dynamic of local development still very much remains a prevalent issue.

4.2. Family vs. entrepreneurial farming

The implementation of entrepreneurial organic agriculture constitutes another controversial result. This phenomenon is closely linked to the specific conditions of development of organic farming, in the framework of its close relationship with the major retailers. But this phenomenon also corresponds to the entrepreneurial spirit espoused by some of the farmers, notably the young ones. In the extreme case, some farmers no longer work the land and concentrate on the administration and the supervision of the work of the different tenant farmers. This leads to situations which increasingly mimic the fine-tuned logic of the division of tasks occurring in an “entrepreneurial” agriculture, and no longer corresponding to the “family” type. On the one hand, this result contrasts with the one which a more socially balanced development of “organic farming” locally would have led to. On the other hand, however, for the employees who have become tenant farmers, the benefit is obvious. Going from a status of day labourer, paid 140 Euros a month, they can hope to earn between 250 and 700 Euros a month (net), depending on the farm and whether they work alone (with their employees) or as a family.²⁶ Moreover, the experience acquired in this function and the possibility of accumulating capital, thanks to a reasonable income, constitutes a terrain favourable to rise even higher in Veravá’s “agricultural” social classes and to set up on his or her own. Let us point out however that, until now, only individuals coming from Veravá’s traditional families began farming on their own after experiencing a tenant farmer responsibility. Although some of the employees originated from outside Veravá²⁷ – whom these today represent practically all the day labourers in the neighbourhood – became tenant farmers, none of them turned farm manager yet.

²⁴ The gross income (turnover) obtained by the tenant farmer is divided equally with the farm manager.

²⁵ R\$15, that is to say approximately €6.

²⁶ The sum of €700 corresponds in fact to the net income declared to us by a tenant farmer working with his father, his mother and his wife. He and his wife keep €400 and his parents €300.

²⁷ For the most part recent immigrants from the northeast of Brazil.

4.3. Towards an agro-ecologisation of practices?

The ecologisation of agriculture in Veravá has been characterised by a progressive process of transition from a residual practice of conventional agriculture to a practice of agriculture which corresponds increasingly to the fundamental principles of agro-ecology, such as defined by Altieri (1999, 2003) or Gliessman (1998). After a first period characterised by the development of very “conventional” organic production systems, signs of deep-reaching transformations are emerging since 2006. This evolution has occurred in response to agronomic problems but also in a perspective of reducing production costs. This trend seems to correspond to the “second step” in the conversion process conceptualised by MacRae et al. (1990), leading agricultural systems which had already passed the stage of substituting inputs to thoroughly redesigned systems involving assemblages of practices (the growing use of green manure in the rotations, the integration of living hedges into the plots, the use of weeds as crop auxiliaries) enabling an optimal management of soil fertility, crop protection and system productivity without inputs. These practices correspond to a clear desire on the part of most of the farmers to pay more attention to the agro-ecological processes and to fine-tune their agricultural practices by better adapting their work to the specificities of the milieu and the need of their plants. This learning process is considered by the agro-ecological theorists as the key to ensure the implementation of efficient systems with low input levels (Altieri, 2003). Furthermore, these changes are signs that farmers are becoming aware that the practice of agriculture does not mean breaking with the nature around them. For many, the aim is no longer to prevent the “weeds from growing”, but on the contrary, to learn to make use of the benefits which their “controlled” presence can provide. The same goes for the use of hedges inside their fields. Although their absence was justified in their explanations by “little proven” usefulness in occupying productive space, this posture was also embedded in a dualist representation of the wild and the cultivated: the presence of hedges in their fields, like that of weeds, was associated in most farmers’ minds with the intrusion of the wild into the domesticated space. From this point of view, this ongoing transition constitutes an important step for a social group which, like other rural communities from São Paulo, has built itself up over three generations on the principle of conquering wild spaces through human labour (Brandao, 1999).

4.4. Tensions between individuality and the collective

Obvious tensions affect the members of this community, notably its most dynamic elements, those driving the development of organic farming in Veravá. For the most part young, they are behind the development of the entrepreneurial agriculture in Veravá and promote a resolutely modern figure of the farmer, where dynamism and ability to take risks are considered as the keys to individual success. The specific conditions in which the development of organic farming occurred in Veravá have clearly stimulated innovative and dynamic postures which were more individual than collective. However, as attested by the farmers themselves, these behaviour patterns didn’t come out from the development of organic farming in Veravá. They just fuelled a limited propensity for cooperation that progressively emerged with the decline of the traditional social structure in the neighbourhood, in the 60s.

Still, while the young farmers are the ones drawing the biggest benefit from this experience today, thanks to their dynamism, to the knowledge which they have acquired and to the networks they have built up outside the local group, they are clearly also the ones driving forward organic farming in Veravá. Firstly, some of them are

dynamic elements of the new farmers associations (APROVE, APROUNI). Secondly, motivated by their own ambitions for success and innovators in most areas (technical, commercial, organisational), they are developing alliances with outside agents and building extra community networks which constitute one of the cornerstones for the growth of what some authors qualify as “social capital” (Woolcock, 1998). Through these new alliances, they contribute to the external visibility of the process and to the emergence of new marketing channels. They organise free training sessions through the trade union (SENAR) or through the federal body in charge of company training (SEBRAER) for the benefit of all the farmers in the neighbourhood. In this way they contribute to the development of each farmer’s agronomic and organisational skills, in other words to the growth of human capital within the community.

4.5. From exogenous to endogenous development?

The creation of the collectives (APROVE, APROUNI) constitutes a starting point for new development strategies, increasingly relying on local cognitive and social resources. As part of a general trend towards greater complexity in the local internal organisation of production and human systems, they illustrate the increasingly endogenous character of the development in Veravá (van der Ploeg and Long, 1994; Ray, 1999).

External stimuli continue today to constitute essential forces for the progression of the dynamic, however, as attested to by the conditions in which the latest association to date came about (APROUNI, 2007). This latter would never have emerged without the strong investments of its current leader, a farmer and political activist who doesn’t belong to the community and of a technician at the chamber of agriculture with proven activist leanings. This is also the case of the current trends in the agro-ecologisation of practices or in the diversification of outlets, also widely stimulated by members external to the community (“private” and public technical management, activists, etc.). Thus, although the development demonstrates an increasingly endogenous character, numerous advances in terms of collective dynamics, organisation of labour and production, or the acquisition of new agro-ecological knowledge, continue to result in and depend on the intervention of individuals external to the community. From the activist to the passing researcher, from the public or private technician to the secondary resident sensitive to environmental causes, these external individuals have an essential role in driving local development and infusing the community with their values which are close to those advocated by the organic movement (social cohesion, ecological integrity, etc.).

4.6. Building alternative food networks and new alliances

The new alliances being formed by Veravá’s farmers constitute new fields of negotiation and co-learning among themselves, but also with retailers, agricultural technicians, activists and scientists. In this respect, one can expect a lot from the farmers’ increasingly asserted desire to turn towards alternative marketing strategies: For the farmers, this new objectives derives first and foremost from a pragmatic commercial concern rather than from an ideology of social renewal. However, one can expect, as attested to by other experiences (Lamine, 2005), that implementing these new strategies will participate in constituting enriching new spaces of cultural and symbolic exchanges between the members of the community and actors more “committed” to the organic ideology. On the other hand, the development of these new marketing channels presents farmers with the challenge of organising their production and retailing on their own and, more generally, of establishing

collective regulations which previously they had no need to specify. Furthermore, as highlighted by Jarosz (2008), such alternative food networks are not necessarily beneficial and sustainable for all who participate in them, in particular for farmers relying heavily upon unpaid family labour and with few possibilities to invest (transport, processing). Thus, one could wonder if developing these alternative networks will really raise new opportunities for the smallest and most vulnerable farmers of Veravá, or if it will, on the contrary, strictly draw benefit for the middle-size and bigger ones, who show more human and capital investment capacities. Once more, only a collective organisation based on solidarity between Veravá's farmers may guarantee shared benefits from these new experiences.

5. Conclusion

In this study we have analysed social, economical and agromonomical aspects of a collective transition towards organic farming involving a rural community, major retail networks and the intermediaries responsible for the logistics of the sector. Our aim here was to contribute to the knowledge of a phenomenon which remain little studied in Brazil, that of the impact on small-scale agriculture of the arrival of major retailers and, more generally, of an array of actors with strong financial capacity in the organic food sector. The concerns which exist in this country in relation to this subject echo a debate which has been around for several years internationally, that of the "conventionalisation" or "bifurcation" of organic agriculture (Rosin and Campbell, *in press*). Yet, these concerns take on a quite particular dimension in Brazil, as the development of the "organic" sector is seen there as a major strategic opportunity for the economic and human development of family agriculture and rural populations. The involvement of non-organic actors in this sector, such as supermarket chains, may be a way for organic farming to become a development lever for the millions working in Brazilian family agriculture. But will this enable advancing in a perspective of equity, of acquiring autonomy and promoting human development?

In the present case, the link established between small family farmers and major retailers shows results which on the whole are positive. In a rural community stuck in an economic slump, organic farming has restored perspectives of working and holding on to land for many families. It has offered those far better living and working conditions, as well as indirectly participating in boosting the local economy. Furthermore, more and more complex and autonomous production systems are being developed while local farmers are progressively becoming "knowing agents" (Morgan and Murdoch, 2000), capable of exercising more autonomy and control over both their relations with other actors in the food chain and means of production on the farm. Collective dynamics have been reinforced, and changes in the way farmers conceive their activity, particularly concerning their relation with nature seem to occur. This process could illustrate the premises of what Noe (2003) qualifies as internal conversion, that is to say a conversion of farmers in terms of values, ideas and thinking. Let us point out, however, that this process is not mechanistically connected with external conversion. Rather, as the Veravá case shows, it is embedded in a complex social process at work, notably involving a succession of crises and the permanent presence of external forces accompanying the movement. There is nothing to indicate neither that in other circumstances such a phenomenon could have emerged nor that it would gain in scale in the coming years, even if the new alliances that are being – and will be built – by the farmers, involving technicians, researchers, militants, consumers committed with organic values will without any doubt participate to the reinforcement of this internal conversion process.

When examined more closely, however, this experience shows uneven results and the community still has to take up many challenges. One issue at stake is to succeed without leaving farmers outside the process, which, is nested in the community's ability to manage the tensions between individual and collective interests. While the creation of the farmers' collectives expresses a certain tightening of intra-community bonds, the propensity for individualism is encouraged by the liberal logic of the major retailers. If market conditions become more difficult, what individual or collective strategies will prevail among Veravá's farmers?

The issue of diversification also appears to be fundamental: the diversification of outlets, notably through the development of short supply chains and, as shown as others research (Darnhofer, 2005), the diversification of revenue around territorial development plans centred on organic farming (tourism, notably). The issue at stake is economic, but also "socio-cultural", since these short networks constitute new spaces of exchange of values and co-learning with consumers (about products and about nature), but also stages of organisational learning for the farmers' collectives. Meanwhile, as shown by other experiences in Brazil (Schultz, 2006), the development of short supply chains by Veravá's farmers may help to challenge the problem of access to organics for low income consumers. Indeed, the actual price structure for organics within conventional channels doesn't allow providing organic products to the great majority of São Paulo's population.

From a broader perspective, increased cooperation between farmers as much as the creation of heterogeneous collectives involving diverse external partners from various backgrounds (consumers, technicians, activists, researchers) may be seen as a guarantee for the overall reinforcement of the community's social capital. Creating these alliances is strongly needed to face the actors of the organic sector with strong financial capital and to allow the farmers to draw further benefits from this organic opportunity.

In a context where the public authorities are barely present, only these collectives are capable of ensuring a social regulation whose quality will depend on making the development of organic farming a project for human development. This social regulation is even more crucial acknowledging that the overall positive results obtained in Veravá are obviously linked with favourable market conditions Veravá's farmers have enjoyed. They benefitted from the organic farming boom in Brazil within "conventional" networks, *i.e.* from a situation of very strong demand from this market sector. Today, the potential for expansion within the internal organic market in São Paulo, as in the rest of Brazil, still remains high. The major retail sector will therefore probably continue to provide a commercial space favourable to small producers in the years to come. In the middle term, however, one can expect a concentration of the intermediary sector and growing pressure exerted by the major retailers. If market conditions become more difficult, one could expect even less attention to the issues of social equity associated with the development of organic sector through "conventional" circuits. Building strong social regulation mechanisms and diversifying markets and outlets will thus be even more crucial than it is today.

This paper is a call for further field studies on this subject in a country where few researchers have studied it, where social transformations occur rapidly and where the stakes for the development of rural areas are particularly important.

Acknowledgments

The author wishes to thank the French foreign affair ministry (Egide Program) who funded this research, the EMBRAPA Meio ambiente (Campinas, Brazil), the INRA-Ecodev (France) and the CEDRUS (Ibiuná, Brazil) for their technical and human support as

much as the organic farmers of Veravá for their participation in this work. Finally, the author wishes to thank the three anonymous reviewers who helped with their comments to improve this article.

References

- Abreu, L.S., Kledal, P., Pettan, K., Rabello, F., Mendes, S.C., in press. Development and current situation of ecologically-based agriculture in Brazil and in the state of Sao Paulo. *Cardenos de Ciência e Tecnologia*.
- Almeida, J.A., 2002. Agroecologia entre o movimento social ea domesticação pelo Mercado. V Simposio Latino-americano sobre Investigação e Extensão em Sistemas Agropecuários – IESA – Florianópolis, 20–23 maio 2002.
- Altieri, M.A., 1999. The ecological role of biodiversity in agroecosystems. *Agriculture, Ecosystems and Environment* 74, 19–31.
- Altieri, M.A., 2003. *Biodiversity and Pest Management in Agroecosystems*, second ed. Haworth Press, NY.
- Andion, C., Serva M., 2004. O controle coletivo dos riscos ambientais na produção de alimentos, uma análise do sistema de certificação participativa na Rede Ecológica de Agroecologia. II Encontro da Associação Nacional de Pós-Graduação e Pesquisa em Ambiente e Sociedade – ANPPAS, 26–29 de maio de 2004, Indaiatuba (São-Paulo), Brasil. http://www.anppas.org.br/encontro_anual/encontro2/GT/GT05/mauricio_serva.pdf (accessed 17.07.08).
- Banks, J., Marsden, T., 2001. The nature of rural development: the organic potential. *Journal of Environmental Policy and Planning* 3 (2), 103–121.
- Bellon, S., Abreu, L.S., Valarini, P.J., 2005. Relationships between social forms of organic horticultural production and indicators of environmental quality: a multidimensional approach in Brazil. *Proceedings Isofar-Ifoam Conference "Researching Sustainable Systems"*, Adelaide (Aus), pp. 430–433.
- Bellon, S., Abreu, L.S., 2006. Rural social development: small scale agriculture in Sao Paulo, Brazil. In: Holt, G., Reed, M. (Eds.), *Sociological Perspectives of Organic Agriculture: From Pioneer to Policy*. CABI Publishing, pp. 243–260.
- Brandao, C.R., 1999. O afeto da terra, Editorza da Unicamp, 175 pp.
- Brandenbourg, A., 2002. Movimento agroecológico: trajetória, contradições e perspectivas. Primeiro encontro da Associação Nacional de Pós-Graduação e Pesquisa em Ambiente e Sociedade – ANPPAS, 6–9 Novembro de 2002, Indaiatuba (São-Paulo), Brasil. http://www.anppas.org.br/encontro_anual/encontro1/gt/agricultura_meio_ambiente/Alfio%20Brandenbourg.pdf (accessed 17.07.08).
- Cabello-Norder, L.A., Bergamasco, S.M.P.P., 2001. Question agraires, politiques publiques et mouvements sociaux. In: Zanon, M., Lamarche, H. (Eds.), *Agriculture et ruralité au Brésil; Un autre modèle de développement*. Karthala Ed, Paris, pp. 107–130.
- Carvalho, Y.M.C., 2000. A agricultura e o comercio justo. In: *Adução verde para a agricultura organica: dia de campo*. Ambrosano et al. (dir.), Grafica e Editora de Gaspari, Piracicaba, pp. 133–148.
- Carvalho, Y.M.C., 2003. Desafio da agricultura organica: capacitação do produtor, geração do conhecimento e troca de informações, comercialização e certificação. *Biológico (São Paulo)* 65 (1–2), 79–82.
- Carvalho, Y.M.C., 2005. Construindo a rede paulista de agro-ecologia. Artigo registrado no CCT-IEA sob número HP-343/2004. Instituto de Economia Agrícola, Sao Paulo. <http://www.iea.sp.gov.br/out/verTexto.php?codTexto=2292> (accessed 17.07.08).
- Darnhofer, I., 2005. Organic farming and rural development: some evidence from Austria. *Sociologia Ruralis* 45 (4), 308–323.
- Darolt, M.R., 2002. *Agricultura organica: inventando o futuro*. IAPAR Editoria, Londrina, 250 pp.
- De Wit, J., Verhoog, H., 2007. Organic values and the conventionalization of organic agriculture. *NJAS* 54 (4), 449–462.
- Douguet, J.-M., Féret, S., 2001. Agriculture durable et agriculture raisonnée. Quels principes et quelles pratiques pour la soutenabilité du développement en agriculture? *Natures Sciences Sociétés* 9 (1), 58–64.
- Edwards-Jones, G., Howells, O., 2001. The origin and hazard of inputs to crop protection in organic farming systems: are they sustainable? *Agricultural Systems* 67, 31–47.
- El-Hage Scialabba, N., 2007. *Organic Agriculture and Food Security*. OFS/2007/5. Food and Agriculture Organization of the United Nations FAO, Rome, Italy. Available at: http://www.fao.org/organicag/ofs/docs_en.htm.
- Ferreira, A.D.D., Zannoni, M., 2001. Une autre agriculture et la reconstruction de la ruralité. In: Zanon, M., Lamarche, H. (Eds.), *Agriculture et ruralité au Brésil; Un autre modèle de développement*. Karthala Ed, Paris, pp. 15–26.
- Gliessman, S.R., 1998. *Agroecology: ecological processes in sustainable agriculture*. Ann Arbor Press, Michigan.
- Guivant, J.S., 2003. Os supermercados e o consumo de Frutas, Legumes, Verduras, (FLV) orgânicos certificados. Relatório final de pesquisa. Projeto CNPq no 520874/01-3. <http://www.planetaorganico.com.br/trabflv.htm> (accessed 12.05.08).
- Guthman, J., 2004. The trouble with 'organic lite' in California: a rejoinder to the conventionalisation debate. *Sociologia Ruralis* 44 (3), 301–316.
- Hall, A., Mogyoródy, V., 2001. Organic farmers in Ontario: an examination of the conventionalization argument. *Sociologia Ruralis* 41 (4), 399–422.
- Hansen, B., Alroe, H.F., Kristensen, E., 2001. Approaches to assess the environmental impact of organic farming with particular regard to Denmark. *Agriculture, Ecosystems and Environment* 55, 11–26.
- IBGE, 2003. *Brazilian National Agricultural Census from 2003*. Brazilian Institute of Geography and Statistics.
- IEA, 2006. *Preços de frutas e hortaliças da agricultura organica*. Instituto de Economia Agrícola. http://www.todafruta.com.br/todafruta/mostra_conteudo.asp?conteudo=13794 (accessed 17 July).
- IFAD – International Fund for Agricultural Development -, 2002. Thematic evaluation of organic agriculture in Latin America and in the Caribbean. Evaluation Committee Thirty-Second Session, Rome, 9 December 2002. Available at: www.ifad.org/gbdocs/eb/ec/e/32/EC-2002-32-W-P-3.pdf.
- Jaros, L., 2008. The city in the country: growing alternative food networks in Metropolitan areas. *Journal of Rural Studies* 24, 231–244.
- Knicker, K., Renting, H., 2000. Methodological and conceptual issues in the study of multifunctionality and rural development. *Sociologia Ruralis* 40 (4), 512–528.
- Lamine, C., 2005. Settling the shared uncertainties: local partnerships between producers and consumers. *Sociologia Ruralis* 45 (4), 324–345.
- Law n° 10.831, 2003. Dispõe sobre a agricultura organica e dá outras providências. *Diário Oficial da União* 24 dez 2003, pp. 140–250.
- Lendrevie, J., Lindon, D., Lévy, D., 2003. In: Dalloz (Ed.), *Mercator, Théorie et Pratique du Marketing*, 7ème ed. Sirey.
- Lima, P.J.B.F., Pinheiro, M.C.A., 2001. Uma abordagem das relações sociais em experiências de produção e comércio de produtos ecológicos no Brasil. Seminário Internacional "Responsabilidade Social y el Comercio Justo en la Producción Orgánica de América Latina", realizado em Cochabamba, Bolívia, 1–5 de outubro 2001.
- Lotter, D., 2003. Organic agriculture. *Journal of Sustainable Agriculture* 21 (4), 59–128.
- van Mansvelt, J.D., Stobbelaar, D.J., Hendriks, K., 1998. Comparison of landscape features in organic and conventional farming systems. *Landscape and Urban Planning* 41, 209–227.
- Martins, V.A., Camargo Filho, W.P., Ferreira Bueno, C.R., 2009. Preços de Frutas e Hortaliças da agricultura organica no Mercado Varejista da cidade de Sao Paulo. *Informações Econômicas*, SP. 36 (9).
- MacRae, R.J., Hill, S.B., Mehuys, F.R., Henning, J., 1990. Farm scale agronomic and economic conversion from conventional to sustainable agriculture. *Advances in Agronomy* 43, 155–198.
- Medaets, J.-P., Fonseca M. F., 2005. *Produção Orgânica: Regulamentação nacional e internacional*. Nead Estudos, Brasília.
- Morgan, K., Murdoch, J., 2000. Organic vs. conventional agriculture: knowledge, power and innovation in the food chain. *Geoforum* 31 (2), 159–173.
- Nascimento, C.G., 2004. Escola família agrícola: uma resposta alternativa à educação do meio rural. *Revista da UFG*, 7(1). http://www.proec.ufg.br/revista_ufg/agro/Q02_escola.html (accessed 17.07.08).
- Nieberg, H., Offermann, F., 2002. Economic aspects of organic farming – the profitability of organic farming in Europe. *OECD Workshop on Organic Agriculture*, Washington DC, Sept. 23–26, 2002.
- Noe, E., 2003. Does instrumentalization of "organic farming" lead to enhancement or dissolution? – a case study of the local dissemination processes of organic farming (preprint). <http://orgprints.org/2114/> (accessed 17.07.08).
- Planeta Organico, 2006. Entrevista com Rogério Konzen. <http://www.planetaorganico.com.br/terrapre2.htm> (accessed 17.07.08).
- van der Ploeg, J.D., Long, N., 1994. Endogenous development, practices and perspectives. In: van der Ploeg, J.D., Long, N. (Eds.), *Born from Within – Practice and Perspectives of Endogenous Rural Development*. Van Gorcum, Assen.
- Pugliese, P., 2001. Organic farming and sustainable rural development: a multifaceted and promising convergence. *Sociologia Ruralis* 41 (1), 112–130.
- Ray, C., 1999. Endogenous development in the era of reflexive modernity. *Journal of Rural Studies* 15 (3), 257–267.
- Rickerl, D., Francis, C., 2004. Multi-dimensional thinking: a prerequisite to agroecology. In: Rickerl, D., Francis, C. (Eds.), *Agroecosystems Analysis*. American Society of Agronomy, Madison, pp. 1–18.
- Rigby, D., Cáceres, D., 2001. Organic farming and the sustainability of agricultural systems. *Agricultural Systems* 68, 21–40.
- Roberts, R., Hollander, G., 1997. Sustainable technologies, sustainable farms, households and structural change. In: Ilbery, B., Chiotti, Q., Rickard, T. (Eds.), *Agricultural Restructuring and Sustainability*. CAB International, New York, pp. 55–72.
- Rosin, C., Campbell, H. Beyond bifurcation: examining the conventions of organic agriculture in New Zealand. *Journal of Rural Studies*, in press. doi:10.1016/j.jrurstud.2008.05.002.
- Schmidt, W., 2001. Agricultura organica: entre a etica e o Mercado. *Agroecologia e Desenvolvimento Sustentavel* 2 (1), 62–73.
- Schultz, G., 2006. Relações com o Mercado e (re)construção das identidades socioprofissionais na agricultura organica. Tese de doutorado apresentada ao Programa de Pós – Graduação em Agronegócios da Universidade Federal do Rio Grande do Sul em 14 de julho de 2006.
- Smith, E., Marsden, T., 2004. Exploring the 'limits to growth' in UK organics: beyond the statistical image. *Journal of Rural Studies* 20 (3), 345–357.
- Woolcock, M., 1998. Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory and Society* 27, 151–208.