



The Brazilian organic food sector: Prospects and constraints of facilitating the inclusion of smallholders

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A B S T R A C T

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The Brazilian organic food sector has experienced important growth during the last two decades. Brazilian smallholders, however, are facing huge challenges to enter and benefit from this growth in a sustainable way. Combining the lens of New Institutional Economics and socio-anthropology, we analyze six experiences of Brazilian smallholders who converted to organics in the 1990s'. Three different food systems are featured in this analysis: an alternative food system, which is strongly interwoven with the Brazilian Agro-ecological movement and two commercial food procurement systems oriented towards domestic and an export markets driven mainly by supermarket chains. The analytical focus was on 1) the governance of these food systems, 2) the constraints farmers are facing within these food systems and, 3) the benefits that they can expect from market inclusion. We highlighted the roles that NGOs, Faith-based organizations and public-related agencies play in supporting the inclusion of smallholders into all three food systems. We confirmed the arguments in support of pursuing the agro-ecological development based model in Brazil, but underlined that there is a critical lack of support for farmers included in the commercial market-oriented food systems. Such a lack is even more critical as the food systems driven by expanding supermarket chains are characterized by strong asymmetric power relations at the expense of smallholders. Considering the reluctance of NGOs and Faith-based organizations to support these farmers, we call for efforts to be made to provide a policy framework to enable public-related entities to secure sustainable inclusion into these systems and exit strategies for those experiencing exclusion from these highly competitive food systems.

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1. Introduction

Global demand for organic products has remained robust and was estimated to have reached 39.8 billion € in 2009, tripling the value of 13 billion € in 2000. Most of the sales take place in the USA and Europe (97%) with a growing commodity import from developing countries (Willer and Kilcher, 2011). However, the rapid rise of both supermarkets and an urban upper middle-class consumer segment in the New Industrialized Countries of the South (Reardon and Berdequ , 2003) has recently brought about an important expansion of the domestic market in these countries (Sirixet al., 2011).

International Organizations such as the FAO or the IFAD (El-Hage Scialabba, 2007; IFAD, 2002) see a promising opportunity for smallholders in particular to take advantage of the global boom

in organic demand. Many research results from countries such as India, Tunisia, Turkey, Cuba or in tropical Africa confirm this optimistic view. They show that organic farming effectively has the potential to provide smallholders with access to attractive markets with higher profitability while creating new partnerships within the whole value chain and strengthening their self confidence and autonomy (Crucifix, 1998; Shah et al., 2005; Kilcher, 2007; Bolwig et al., 2009).

However, some less optimistic outcomes have been highlighted, too. G mez-Tovar et al. (2005) and Gonz lez and Nigh (2005) show, for example, how the unsuitable certification context and the highly competitive market for organic coffee in Mexico tend to reproduce social inequalities between smallholders and larger market-oriented producers, resulting in the exclusion of the former. Similarly, Blanc (2009) shows that the Brazilian domestic market for organic vegetables is highly competitive and exclusive, and does not protect smallholders from potential hold-up situations exerted by powerful downstream partners. From a broader point of view, research has underlined that smallholders in

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emerging countries, who are often economically marginalized and with low educational backgrounds, are facing many challenges to enter the organic sector and to benefit from it. Problems such as decreasing incomes during the conversion period and high costs for certification are serious constraints, particularly when no specific subsidies exist for organic production (Egelyng, 2009). Structural barriers to access credit, difficulties in creating reliable market links and a lack of knowledge about organizational management are also considered to be highly problematic issues (Barret et al., 2001; Nordlund and Egelyng, 2008; Blanc, op. cit.).

This paper aims to discuss these issues further using the specific context of Brazil and its growing organic sector. Setting aside rather contradictory statistical data, Brazilian production in the organic sector has experienced important growth during the last two decades. With 1,766,000 ha managed by 7250 producers certified as organic in 2007, Brazil is the fourth largest country in the world in terms of agricultural land under organic cultivation (Willer and Kilcher, 2011). In addition to a few large agro-industrial farms mostly orientated towards export markets, growing contingents of smallholders have joined organic production from the 1990s onwards. With the election of the first left-wing Brazilian government in 2002² in particular, organic farming became part of a political strategy to facilitate the social inclusion and economic development of smallholders (Bellon and Abreu, 2006). Since 2003, the Ministry for Agrarian Development (MDA), which is in charge of supporting family farming in Brazil, thus has steadily extended its support for organic farming, funding smallholders and their organizations to convert their production while developing extension programs specifically directed towards organics.³ Likewise, the organic law passed in 2007 institutionalized the Participative Guarantee Systems (PGS), said to be more adapted to poor smallholders (Fonseca et al., 2008). Many NGOs and associations from the civil society, including faith-based entities along with powerful organizations such as the MST (Landless Movement) and the FETRAF (Federation of Family Farming Workers), laid the foundations for these stronger social orientations in state agricultural policies. They have joined the project progressively and today agro-ecology and certified organic farming are positioned at the heart of their strategies.

The growth of the organic demand both within the domestic and the export market, along with the support provided by specific institutional frameworks, public policies and activists' engagements, thus offers growing opportunities for the Brazilian smallholders to enter the organic sector. At the same time, it offers fertile ground to conduct an analysis of the challenges these smallholders face when entering this sector and attempting to benefit from it. In this paper, we specifically focused on three food systems that have been the main drivers of the inclusion of the Brazilian smallholders into the organic sector⁴ since the early 90s. One is oriented towards the export market and the two others towards the domestic one. We classified the latter as, 1) an "alternative food system" (AFS), for it is strongly interwoven with the Brazilian social movements and embraces diverse experiences that have the common aim of stressing social and environmental welfare, and 2) a commercial market food system driven mainly by expanding supermarket chains. For each of these food systems, we focused on three main

questions: how does smallholders inclusion occur in practice? What – common and distinct – difficulties and challenges do smallholders experience and to what extent do they benefit from their inclusion in these food systems? This comparative study is then followed by a discussion about the specific governance set up in the Brazilian organic sector, featuring the interactions of smallholders with the public sector, commercial market actors (e.g. supermarkets, exporters) and civil society organizations (e.g. NGOs, faith-based organizations, etc.).

These issues are discussed on the basis of six different case studies of organic experiences which combine data obtained during a) our own fieldwork conducted between 2007 and 2009 in two localities b) data gathered in a PhD (Schultz, 2006) and three Master Theses (Brancher, 2004; Azambuja, 2005; Almeida, 2009) together with journal articles (Storch et al., 2004; Souza et al., 2005; Almeida and Abreu, 2009). These case studies exemplify singular experiences of smallholders converting to organic production in the three food systems mentioned above. Before documenting and discussing these experiences we briefly introduce the theoretical perspectives selected for the analytical framework, and in the subsequent section, provide a more detailed description of the different food systems which structure the Brazilian organic sector.

2. Theoretical background

Our critical analysis is carried out mostly within the framework of the views held in New Institutional Economics (NIE). References to concepts used in transaction cost economics together with organizational theory are therefore central to this study. A brief reminder of some of the basic conceptual notions in such fields is therefore necessary.

New Institutional Economics uses the "transaction" as its unit of analysis. From a NIE point of view, exchange itself is costly, meaning that, in contrast to the proposition of orthodox economics, the behavior of market actors cannot be explained and predicted by considering trade-offs between prices and production costs (including physical marketing costs such as those for transport and storage) alone. NIE thus claims that taking into account the cost that actors face when trying to coordinate their exchange on the market is essential to understand individual and collective behavior in this arena. These costs, called transaction costs, include the costs necessary to obtain and process market information (information costs), to negotiate contracts with others (bargaining costs), to make sure the other party adheres to the terms of the contract (monitoring costs) and to take appropriate action if this turns out not to be the case (enforcement costs). Hobbs (1997) classified these costs such that information costs typically arise *ex ante* of an exchange, bargaining costs are the costs of physically carrying out the transaction, while monitoring and enforcement costs occur *ex post* of a transaction.

Williamson (2000) and Masten (2000) defined five determinants of transaction costs: 1) frequency refers to how often a transaction takes place, hence helping to build trust and lower monitoring costs; 2) asset specificity, e.g. a farmer planting coffee or orange trees has to wait for a number of years before harvesting and then selling his fruits over a period of several years before investments are returned on his assets. He therefore has to try and minimize his *ex post* risks by making longer term contracts, raising transaction costs *ex ante* to his specific investment; 3) uncertainty, the higher the uncertainty about exchange conditions, the more complex the contracts which will be installed or the greater the tensions occurring between market actors (all of which can raise transaction costs); 4) limited or bounded rationality, contrary to neoclassical economics NIE claims there are limits to how much

² The last Brazilian election was won by the incumbent left-wing government resulting in a third-term (2011–2015).

³ In particular the Programa Nacional de Fortalecimento da Agricultura Familiar (PRONAF) "Agroecologia" launched in 2005.

⁴ What we call the "organic sector" embraces all food systems within which organic products (recognized as such by the organic law) flow. It includes different types of producers, forms of productive organizations, ways of accessing markets and making transactions.

market actors can know or foresee, thus raising negotiation and monitoring costs in an effort to minimize uncertainty; and lastly 5) opportunistic behavior, is potentially inherent in humans when it entails dividing scarce resources, hence making it necessary to install certain safeguarding institutions of control, monitoring and enforcement, all leading to higher transaction costs. A classical opportunistic behavior evident in agriculture is the so-called 'hold-up' problem. A farmer ready to sell his fresh vegetables is suddenly confronted with a trading partner not willing to pay the full amount agreed upon. The farmer has to accept, because he will not have time to find a new trading partner before his vegetables are rotten – a situation known to the buyer. In this case, the opportunistic buyer expropriates part of the return on the farmer's specific asset investment *ex post*.

According to the seminal work of Coase (1937), it was precisely to economize on these determinants of transaction costs, that institutions ('rules of the game') and organizations were created, internally as well as externally to firms. Farm associations or cooperatives are examples of different business organizations in agriculture trying to minimize various types of transaction costs in terms of both securing the right volume from many smallholders and giving farmers some bargaining power. Likewise, a national law on organic certification, control and enforcement illustrates how the state, as an external institution, can build trust between producers and consumers and thus lower their individual transaction costs of control and monitoring.

However, setting up organizations and institutions creates a set of specific coordination costs internally. These are related to tasks such as defining and agreeing upon a marketing strategy, establishing collective production and delivery planning, as well as specific governance and property rights arrangements within, for example, a farm association. Transaction and coordination costs are interrelated and from an organizational theory point of view, phenomena such as the emergence of an organization, its transformation and strategic moves, as well as its closure, are critically related to the dynamic balance between these two kinds of costs in parallel to other basic economical data (demand/offer, price competition, etc.). According to this theoretical perspective, farmers would never build or enter a specific organization if the sum of the costs of transaction and coordination was higher than the expected profits. Conversely, existing organizations would dissolve if these costs became higher than the profits farmers could expect in another market setting.

Granovetter (1992), Freeland (1999) and Freeman (1999), all strongly criticized such a transaction cost approach. Granovetter (1992) pointed out that the belief in administrative control as a solution to opportunistic behavior put forward by the economist Oliver E. Williamson was 'functionally optimistic' for it neglected the importance of social relations and ascribed to hierarchy an unrealistic influence on human behavior. Social order cannot be created by organizational arrangements alone. In accordance with this view, we assume that economic exchange, cooperation and organizational issues cannot be considered if the influence of people's existing social relations or the norms and values shaping those practices (North, 1990) are excluded. Firstly, this is because farmers, like people in general, have social lives and opinions, values and beliefs that are, like their capacities, formed, maintained and transformed within social groups, families and communities (Bliss, 1993; Douglas, 2007). Smallholders who are members of the same organization may therefore, to some extent, share a common history, exhibit family ties, experience intense vicinal relations, etc. Such intense sociability may build empathy, sympathy, shared values and lead to specific forms of solidarity, as well as deep-rooted conflicts, prohibiting cooperation between certain members of a community or favoring specific alliances within

a group. Secondly, this is because the exchange of products is at times also embedded in logics that are not only about minimizing costs and maximizing profits. With regard to this, organic markets, and particularly those created within the "alternative" perspective, can also be explained by their specific transactional processes, in which values of trust, cooperation, profit sharing, social and environmental concerns are important issues of the marketing transaction. Hansmann (1996) explained the outcome of these 'non-capitalist' marketing organizations as a counter reaction to alienation or exploitation, said to characterize capitalist (investor-owned) enterprises and market exchange rooted in capitalism itself. In relation to organic food production, alternative 'non-capitalist' market organizations, which emphasize an altruistic transaction process, could therefore be seen as a countermove to attempt to overcome the transactional outcomes (the alienation or exploitation of Man and Nature) derived from the transactional processes inherent in a capitalist market exchange (Kledal, 2003).

That is why, even if references to transaction cost economics are of importance in our analysis, economic exchange, cooperation and organizational practices are always discussed regarding the relational and cultural aspects of collective action, too. In other words: the specificity of our approach is to analyze what social relationships, in a broad sense, can do for market transactions within the organic sector in Brazil in terms of longer term legitimacy, resource generating or other bases for social stability.

3. A brief overview of the food systems shaping the Brazilian organic sector

Within the main food systems currently shaping the Brazilian organic sector, the "alternative food system" (AFS) was the first to emerge in the early 1980s. Civil and religious activists, such as the progressive wings of the Lutheran and Catholic churches, neo-rural farmers, agricultural extension agents, together with associations and NGOs devoted to the promotion of organic farming, actively participated in the shaping of AFS. Interwoven with the increasingly strong national and international "agro-ecological movement," they focused not only on production techniques and extension services, but also organized semi-closed circuits of exchange between farmers and consumers, based on values which stressed transactional processes of trust and social and environmental welfare, as opposed to the outcomes of capitalist transaction exchange, such as competition, exclusion and the concentration of production (Cohn et al., 2006; Brandenburg, 2008). In 2010, this "alternative" food system channeled half of the certified organic production within the domestic market via popular fairs, box schemes or direct delivery systems. It is particularly well developed in Southern Brazil, where notably the "Eco-vida" network coordinates a large number of alternative experiences, involving more than 1500 family farmers organized in associations and cooperatives. Formalized in 1998, the network is based on a regional scale participative guarantee system (PGS), which became the reference for the recent officially accepted PGS systems under the national certification scheme (Fonseca et al., 2008).

In the early 1990s, pressure from activists and farmers' organizations on the one hand, and firms attracted by the organic market opportunities (producing and selling inputs, processing, export activities) on the other, drove the Brazilian government to progressively regulate the organic sector (Schmidt, 2001; Medaets and Fonseca, 2005; Lima and Pinheiro, 2001). The implementation of a formal set of institutions regulating organic trade and markets, including passing the first "organic law" in 1994 and the accreditation of many certification bodies, laid the foundations for the emergence of more formalized procurement systems. Many

national and international actors, some with strong financial capital, entered the arena and stimulated the sudden rapid growth of the sector. The export market was historically the first to drive this growth, with Europe, North America and Japan as the main markets. In the early 2000s, organic exports from Brazil accounted for almost 70% of the production and today 60% of the organic production in Brazil is still being exported. Smallholders⁵ make up only a limited part of these exports, since in economic terms, sugar and soya account for 84% of all organic exports. Both sugar and soya originate from the large estates in the Central West and South East region of Brazil (IBGE, 2009).

Besides the export market, a commercial domestic oriented food system, driven by national and/or international supermarkets, captured a growing share of the organic food market in the late 90s. The system has grown markedly since the early 2000s, when sales began to experience 25% growth per year according to the Brazilian supermarkets association (ABRAS). The worldwide supermarket chain Carrefour (home base: France) and its main competitor Casino, with its joint-venture ownership with the regional up-market chain Grupo Pão de Açúcar, are the major drivers behind this growth. As opposed to the alternative food system, this domestic market, like the export one, requires the acquisition of third-party organic certification. Intermediary companies and big farmers' cooperatives are responsible for most of the logistics of this food system, linking the producers and the major retailers. Smaller farmers' associations may deal directly with supermarkets chains and outlets, but only if they are able to deliver the expected quality and critical mass of supply in time. Up to now, supermarkets have strictly targeted upper- and middle-class urban consumers, with the price of organic products exceeding that of conventional products by 40–300% (Guivant, 2003; Kiss, 2004).

Since 2011, the domestic market experienced a new maturation process. Many restaurants and fruit and vegetable shops, generally part of big chains, are trying to develop an organic offer. Similarly, demand for organic box schemes is expanding quickly outside the alternative sphere. Such an evolution, which concerns large urban centres and involves consumers from the upper-middle class in particular, represents a potential way to diversify existing scenarios regarding the organization of production and commercialization in regions located in proximity to these centres.

In parallel to the privately driven domestic food system, a public procurement system launched in 2003 was built within the broader government program "Fome Zero" (Zero Hunger). One of the constituents of this program, the "Programa de Aquisição Alimentar" (PAA – Food Purchase Program) put the emphasis on both "ends" of the food supply chain. The aim was not only to offer access to food for populations facing insecure food and nutritional situations, but also to guarantee market outlets and minimum prices for smallholders. To this end, a Federal agency "Compania Nacional de Abastecimento" and to a lesser extent, Municipal and State agencies, purchase products from smallholders and then distribute them to institutional entities such as schools and hospitals as well as population groups considered "vulnerable." This program is not specifically orientated to organics but, from 2003 to 2009, 77.6 million € – out of a total of 725 million – was specifically invested in organic production within the PAA. The program offers good opportunities for organic growers, guaranteeing a 30% premium above a reference price set on the basis of local and regional market prices. This public procurement food system is not addressed in our work, however. The main reason is, that in all the situations we faced, we could only find the public food system combined with one of the other food systems, which occupied a small share of the

farmers' outlets (up to a maximum of 15%).⁶ The secondary (but interrelated) reason is that we could not find work that specifically addressed this food system and organic production, probably due to its novelty.

4. Case studies: organic experiences of smallholders in the Brazilian organic sector

This section presents six case studies of smallholders who converted to organic production in the AFS, the commercial domestic and the export oriented food system respectively. In each of these narratives, we analyze the processes of inclusion of the farmers and their experience within these food systems. Table 1 gives an overview of the main characteristics of these 6 case studies.

4.1. Experiences within the alternative food system

The AECIA, Associação dos Agricultores Ecologistas de Ipê e Antonio Prado, and the ARPASUL, Associação Regional de Produtores Agroecológicos da Região Sul, respectively created in 1991 and 1995, are both pioneers within the organic farming associations in the southern Brazilian state of Rio Grande do Sul. In 2008, 35 families were members of AECIA and 50 were members of the APRASUL.

Both associations were created under the influence of faith-based organizations.⁷ These organizations introduced and promoted agro-ecological principles to the farmers and provided them with technical agricultural extension, facilitating their conversion to organic production. In the AECIA case, a specific partnership was established with an extension NGO ("Centro Ecológico"). Meanwhile, the organizations facilitated the creation of farmers' cooperatives, linking the smallholders with groups of consumers and farmers, all future members of the Ecovida network. In this way, they helped the farmers setting up the juridical and organizational bases that enabled them to sell their produce as "organic" to groups of consumers through a Participative Guarantee System. Turning away from the wholesale market of the State Capital, the smallholders began channeling their production towards fairs that the members of these groups had organized in various cities of the State of Rio Grande do Sul. From a mixture of tobacco, fruit, vegetables and grain, the farmers from AECIA decided to specialize mainly in fruit production and the commercialization of fruit juice and nectar, together with small quantities of vegetables sold *in natura*. ARPASUL farmers for their part abandoned tobacco, but continued rather diversified production, growing and commercializing a broad range of vegetables, fruit, and grain, both *in natura* and processed (fruit juice, canned goods, etc.).

The farmers from both AECIA and APRASUL remained committed to their original organic fairs for many years, with each family attending fairs twice a week. From the farmers' point of view – and obviously from the facilitating entities perspective too organic fairs were the only way to maintain full control of the premiums as they could sell their production at affordable consumer prices and thus reach low-income consumers. In

⁶ The amount purchased is limited to 1380 € per year per farmer, which is the equivalent of one Brazilian annual minimum salary. This explains why, in all the cases studied here, the public procurement system was a) always found in combination with one of the other three food systems and, b) never exceeded 15% of the farmers' market share.

⁷ The "Pastoral da Terra" (Catholic) for AECIA and both the "Centro de Apoio ao Pequeno Agricultor" (Evangelic) and the "Comissão Pastoral da Terra" (Catholic) for APRASUL.

⁵ Mainly producing cocoa, fresh fruit and coffee beans.

Table 1
Main characteristics of the 6 case studies.

	Formalized domestic food system		Alternative food system		Formalized export food system	
Organization	Horta e Arte APROVE COAGRIS	APAC	ARPASUL	AECIA	APEMB	COAGROSOL
Number of farmers involved (2006 ^a)	60	53	50	35	150	35
Year Going organic	1994	1997	1995	1991	1997	2000
Mean Farm size ^b	3.5 Ha	3 Ha	5.6 Ha	7.5 Ha	13 Ha ^b	22.5 Ha
Major products sold	Vegetables	Vegetables	Vegetables + fruits	Fruits mainly in juice	Coffee	Fruits mainly in juice
Market channels	From Supermarkets, opening to public institutions & box scheme	From Supermarkets, opening to public institutions & organic outlets	From popular fairs, opening to public institutions and Supermarkets	From popular fair, opening to public institutions, own farm shop & organic outlets	From Export to domestic (public institutions, NGO's, local Inns and organic outlets)	From Export to domestic supermarkets
Certification	Organic; third-party (IBD, Ecocert, OIA)	Organic; third-party (IBD)	Organic; PGS (Ecovida)	Organic; PGS (Ecovida) and third-party (Ecocert)	Organic; third-Party (IBD) Fair-Trade	Organic; third-Party (IBD) Fair-Trade

^a 2006 has been chosen as the reference date as we had to rely on Schultz's work (2006) for some of the data (ARPASUL, APAC).

^b Variance is high in this case: size are ranging from less than 1 Ha up to almost 100 Ha (Souza et al., 2005).

addition, participating in organic fairs was seen as a way to build-up social ties and to reinforce solidarity with both consumers and between the farmers themselves. However, such a marketing option became progressively challenged. According to the farmers from both groups, attending fairs twice a week was a heavy load for a family-based labour organization, critically taking them away from working in the fields while not always bringing in satisfactory earnings. To improve earnings, attempts to attend a three-weekly market fair were made but, even when sharing this duty one with another, the farmers quickly abandoned these options due to time constraints and progressively diversified their commercialization channels instead. In the AECIA case, diversification started in 1995 and grew steadily, so that in 2008, only 30% of the farmers' sales were in the original market fair scheme. 60% of their products were sold to small organic shops, restaurants and box scheme firms, mainly via telephone and internet selling systems, but also via commercial agents (10%). The remaining 10% were channeled via the public procurement system. The APRASUL farmers began to diversify their outlets in 1998, when they entered into partnership with a consumer association and began selling their products (up to 25%) in the association's shop and restaurant. In 2003, they entered the public procurement system too, which accounted for 15% of their production in 2008. The farmers thus maintained the organic fairs as their major marketing channel (60%) until 2008, but a major switch occurred this same year, when almost half of the farmers in the group decided to sell their products to supermarkets via intermediaries and to leave the fair system definitively.

In both cases, the diversification of their outlets meant that the farmers abandoned some of their previous commitments. Only the remaining organic fairs and the institutional market, both of which enabled the farmers to reach low-income consumers, fitted the farmers' original value-driven marketing orientation. This was in opposition to the intermediaries who were setting the prices and transforming the farmers' production into luxury goods sold through the other marketing systems.

It must be emphasized that the supporting organizations have played a major role in these diversification processes. In both cases, they facilitated the establishment of new juridical structures (cooperatives) that enabled the farmers to sell their products to registered economic agents (intermediaries, shops, etc.),⁸ and

helped the farmers to define their commercialization strategies, to build the appropriate networks and to improve their production planning. Meanwhile, they aided the farmers to gain access to funding from both governmental and non-governmental agencies. AECIA received funding both from Caritas Brazil in 1998 to develop transport facilities and from the MDA to build artisanal processing units (Pronaf Agroindustria). ARPASUL became involved in the Programa de Desenvolvimento Sustentavel do Territorios, launched by the MDA in 2003, which generated 32.000 € for the association to help them diversify their outlets, as well as to purchase IT equipment.

The gradual diversification of sales and outlets produced tensions in the groups, however, illustrating the contradictory process of trying to raise incomes while maintaining practices of exchange embedded in non-market-orientated values. In the APRASUL case, these tensions turned into conflicts as many farmers considered that leaving the market fair system in order to deal with supermarkets would contradict the group's convictions regarding their transaction principles (fairness, social ties, etc.). Furthermore, farmers had to build a cooperative (for juridical purposes) and get a third-party certification to deal with the supermarkets resulting in new costs that half of the farmers didn't want to share. As a result, the ARPASUL group split into two sub-groups. One group maintained their activities on behalf of the association, marketing most of their production at the fairs, while the second group started a cooperative, selling to supermarkets via intermediaries, but continued to use the ARPASUL name.

4.2. Experiences within the supermarket driven food system (domestic)

The farmers from the Associação de Produtores Agrícolas de Colombo (APAC – State of Paraná) and those from the rural neighborhood of Veravã (State of Sao Paulo) are vegetable growers who converted to organic farming in the 90s, commercializing *in natura* vegetables to supermarkets of the State capitals (respectively Curitiba and Sao Paulo).

The Associação de Produtores Agrícolas de Colombo (APAC) was established in the early 80s, encouraged and aided by the Federal extension service organization (EMATER⁹) and the municipality of Colombo. For the 25 farmers involved in the process, it was an

⁸ Such a shift in juridical structures is needed, in accordance with Brazilian law, so the farmers can commercialize to economic agents who request fiscal notes for any transaction.

⁹ Empresa de Assistência Técnica e Extensão Rural.

opportunity to turn away from the wholesale market (CEASA) and develop new market outlets (church community networks, small shops and restaurants). The APAC growers then entered the organic market in 1997, benefiting from a partnership made with the Parana's Organic Association (AOPA), an organization created a few years before (1995) to promote agro-ecology for the smallholders in the State. This partner benefited the APAC growers with its new connections with some of Curitiba's big retailers. They began selling *in natura* vegetables to supermarkets of the State capital, and were included in a wide network involving almost 300 families from various neighboring municipalities.

In 1998, this network was highly prosperous. The farmers were selling 1200 tons of vegetables to 28 supermarkets, employing 22 people for processing, packing and deliveries, alongside 20 commercial agents who coordinated relations with the supermarkets. However, the system quickly experienced serious difficulties, which led to its failure. Changing transaction rules imposed by supermarkets (lower prices together with more stringent norms regarding quality and regularity for deliveries) along with management deficiencies within the group in which the APAC farmers were included, led to a massive trade gap, leaving APAC with a financial deficit of about 180,000 € and farmers with no income for six months. While the AOPA decided to stop dealing with supermarkets and to turn back to "alternative" marketing channels, the APAC growers maintained their relations with the retailers. In order to enhance their bargaining power and to enable non-sold organic items to find their way to conventional markets instead of making a loss, they chose to include conventional farmers in their association. This strategy was a success as, in 2002, 100 farmers, of whom 40 were organic growers, sold their fruit and vegetables to 52 supermarket outlets including major retailers such as "Carrefour," "Pao de Acucar," "Zaffari S.A." and "Wall Mart." At this time, the APAC was employing 40 people, dealing with the commercial, administrative and technical side of the business while maintaining the physical premises, which included cold storage facilities, packing machines, etc. that had been financed by public funds.

However, a second crisis occurred in 2005. From 2000 onwards, organic sales, as well as the number of suppliers, had increased and the sector was experiencing growing competition from new intermediaries and cooperatives of regional scope (Cultivar, Santo Onofre, Rio de Una, etc.). Supermarkets began setting new and tighter rules on transactions at the expense of the farmers, such as: 1) the farmers would no longer receive payments for non-sold items, whereas before the loss had been divided equally between the supermarkets and the farmers, 2) the farmers would have to pay a fee for renting floor space, 3) marketing fees would increase for products registered as sold by the supermarket, 4) supermarket credit was extended with farmers having to wait 120 days for payment as opposed to the previous 45 days and, 5) 20% of the farmers' produce was to be sold at discount prices whereas before it had been 5%. Under these new conditions, the success of APAC came to a sudden end. The association had to disband after not having paid its growers for several months and with a debt of 120,000 €. Organic farmers went back to selling most of their products (still as organic) individually to intermediary firms that progressively took over the middle-market business in the State¹⁰ and the leftovers were sold as non-organic in the wholesale market (CEASA) and in Municipal markets.

The story of the Veravà farmers is very similar. Veravà is a rural neighborhood in the Ibiunã municipality located in the

Metropolitan Region of Sao Paulo. The farmers were experiencing serious difficulties in selling their vegetables on the wholesale market of the Capital in the early 90s. At the instigation of faith-based activists and leaders of the Organic Agriculture Association (AAO), some of the farmers converted to organic production. Funds from a charitable organization enabled the hire of agronomists and the organization of organic farming classes, while a marketing system linking them to Sao Paulo's low-class consumers, was set up. However, few farmers became involved in the system, as the outlets were very limited. This situation changed in 1995, when two neo-rural farmers from a neighboring district joined the group and launched a retail network with supermarkets in the capital, creating considerable local demand. As a result, 50 farmers from the neighborhood had converted to organic production in 1999. Following the initiative of the two originators of the retail network, three different juridical entities organized around the same name – "Horta e Arte" – were established: 1) an association to collectively plan the production and to discuss and make strategic decisions, 2) a cooperative for the grouped purchase of inputs and, 3) a firm to manage the transactions with the supermarkets. To respond to retailer demand, farmers from other neighborhoods joined the group, which numbered 135 members in 1999. At this time, around 30 people were employed to pack, deliver and sell the products and to provide an extension service for the farmers. A processing unit was built and lorries were purchased, notably with the help of funds (50,000 €) received from the MDA to improve the association's facilities.

In the case of Veravà, just like that of Colombo, farmers quickly ran into organizational and market problems, which led to the failure of the venture. Firstly, starting in 1995, the farmers' association (H&A), which had provided an opportunity for the participation of the smallholders in decision-making, steadily weakened, while the firm (H&A) took charge of the developmental process and increasingly took on the role of a private intermediary between the farmers and supermarkets. In 2000, a decision was made to change the individual organic certification of the farmers to a group certification (IBD) in the name of H&A. This decision dramatically reduced the farmers' certification costs, but it also held them captives of the organization. The group certification was paid under a covenant that the farmers could not sell their products to other organic outlets without the agreement of the H&A management team. Secondly, from 2000, H&A (the firm) faced growing competition from new intermediaries and cooperatives of regional scope (Cultivar, Santo Onofre, etc.), which were involved in both the conventional and the organic sector. These intermediaries, therefore, had lower operational costs and stronger bargaining power with the major retailers. H&A (the firm) passed on the tougher transaction requirements of supermarkets to the farmers, the result of which was that some of the farmers could not keep up with the pace and lost most of their contracts with H&A. With a sudden loss in earnings, these farmers quickly lost their capacity to invest in irrigation, tractors, greenhouses, etc. and became progressively excluded from farming.

In response to these increasingly harsh transaction conditions imposed by the H&A managers, a small group of 5 farmers who were willing to take risks, decided to leave the firm and form their own association (APROVE), develop their own group certification and purchase inputs together. They then accepted a proposition from a regional conventional cooperative (CAISP) to constitute its "organic" branch. Contrary to H&A, CAISP operated under similar principles as the New Generation Cooperative (Harris et al., 1996). This allowed the organic farm group to benefit from both cleared shared rights, as well as important scale related economies by sharing storage with larger conventional producers. Furthermore, CAISP did not demand a right of exclusivity, which enabled the

¹⁰ "Fruto da terra" (created by formal APAC/OAPA growers who turned it into an intermediary business in 1997), "Rio de Una" (established in 2000), "Sítio Tucano" and "Sabores da Natureza".

organic farm group to sell to other intermediaries as well. After one or two difficult years, the farmers began to benefit from an increase in various local intermediaries, as well as the growth of the CAISP itself.

H&A went bankrupt in 2008 due to an increasingly competitive environment and with intermediaries that dealt with both organic and conventional produce. Having accumulated huge debts, the firm ceased part of its activities (70% decline in sales) and left the local growers with huge financial losses (up to 15,000 € for some of them), as well as no outlets for most of their produce. In response, two of its former employees supported the growers in creating their own cooperative (COAGRIS, created late 2008). However, today, this organization is also experiencing many difficulties. In spite of meeting on a weekly basis, the farmers have not been successful in establishing rules for a collective association (in terms of production planning, sharing packing and deliveries), or in reaching an agreement on strategic issues. For two years they managed to sell most of their production to an intermediary firm, “Rio de Una,” while commercializing a small part of production directly through a box scheme and through a specialized middleman. Difficulties in managing the cooperative properly progressively led to conflicts within the group; property rights had not been shared correctly and some felt the rents were not shared equally. These conflicts resulted in preventing the group from further fulfilling the firm’s requirements, as some farmers were not fulfilling their own engagements towards the cooperative anymore. They lost their contract with the firm and the cooperative stopped its activities. Everyone then went back to selling individually, some trying to enter a newly growing market in the region, consisting of specialized fruit and vegetable shops that had begun to sell organics, restaurants and direct delivery schemes to urban settlements and fairs.

4.3. Export driven markets

The two export cases described below involve the farmer cooperative COAGROSOL from the Southern State of Sao Paulo selling processed and fresh fruit, and the APEMB (Association of Ecological Producers of Marico of Bauxite) located in the North-eastern State of Clara selling coffee beans.

COAGROSOL was created in 2000, derived from an association known as ABRACITRUS. ABRACITRUS had been established the year before by about 600 small producers in the region of Itapolis (State of Sao Paulo), in order to obtain a better price for oranges. The farm-gate prices at the time did not even cover the costs of production. The small producers led a remarkable protest and drove lorries filled with their oranges to Sao Paulo, where they dumped the entire production in one of the most important streets of the city. The protest soon received national attention and Sao Paulo’s governor was obliged to negotiate with the producers. Following this protest, a small group of ABRACITRUS members decided to establish a cooperative, COAGROSOL, in order to trade within the certified Fair-Trade system. At the time of its foundation, 30 producers were members of the cooperative and negotiations with Max Havelaar, Switzerland soon took place. The SEBRAE,¹¹ a Brazilian capacity building agency for small entrepreneurs, played a significant role in the process. SEBRAE, as a non-profit corporation supported by the Brazilian government, offered training programs to the members of COAGROSOL so that they could engage in both export and organic activities. Workshops, days of fieldwork and visits to organic growers were organized, facilitating both the farmers’ conversion to organic production and the organization of

a marketing system (including production planning and organizational issues). The first Certified Fair-Trade sales were established in late 2000, comprising a total volume of 330 tons of orange concentrate, which was sold to a conventional importer. Six years later, in 2006, the cooperative was at the peak of its development and had 120 members and 16 people working in management, administration, technical assistance etc., with 25 organic producers. A number of members were no longer orange growers, as the cooperative decided to diversify its production and sales. While some of the specialized orange producers began growing other fruit (sold fresh, as well as processed), more specialized vegetable growers joined the cooperative.

APEMB was founded in 1996, comprising 158 coffee growers, of which 110 were certified organic. When it comes to coffee, Brazil produces nearly a third of the world’s coffee harvest, but virtually all of it is low grade “filler”, and most of the coffee is sun-grown in the southern coffee regions of São Paulo and Paraná States. However, farmers in the Baturité Mountains of the North-eastern state of Ceará and a region of the Atlantic Forest had kept some shade-grown coffee, since the local climatic conditions, with seasonal heavy rain and a dry season did not permit sun-grown coffee.¹² During the 1990s, the coffee yields in the area decreased, which was mainly due to a lack of pruning and coffee plant aging. In parallel, deforestation, soil erosion, the destruction of groundwater supplies and threats to the water supply in the State capital Fortaleza, were increasing. Pressure from civil society groups then brought about a State conservation plan, the Baturité Mountains Environmental Protection Area, comprising environmental restrictions on soil utilization, as well as agro-ecological support for shaded coffee farms. One of the activities was the Projeto Café Ecológico, which started in 1995 and was conducted by the NGO CEPEMA Foundation,¹³ which has links with the Swedish NGO part of the international network, “Land of the Future.” CEPEMA trained the farmers in agro-ecological practices, how to run a coop and a market association, while providing them with new coffee plants, fruit and shade-tree species. Together with the Swedish NGO, CEPEMA directed the process of establishing the APEMB farmers’ association and establishing the first market connection with the Swedish coffee roaster, ‘Classic Kaffe.’ APEMB worked on quality improvements, mainly through the introduction of better drying practices and bean selection. In the initial years, the Banco do Nordeste provided financial support to pay for the certification costs, which amounted to 3500 €. In 1997, APEMB exported its first 6 tons to Classic Kaffe through a multiple agreement including CEPEMA, the Swedish Society for Nature Conservation, the Land of Future International Network and the State government of Ceará. In 1999, production had increased to 30 tons, which represented 60% of the total amount produced by APEMB. The producers received 116 € per bag, compared with 72/80 € per bag on the conventional market. Part of the premium was due to being able to sell Arabica¹⁴ coffee, whereas before they used to sell “Conillon” (Robusta) coffee, which fetched a much lower price.

However, both COAGROSOL and APEMB ran into severe problems when their international commodity markets began to saturate, which resulted in pressure being put on the producers’ sales price importing food companies.

¹² In practice, the growers of APEMB cultivate individual coffee plants between bananas, mangos, tangerines, cashews, sugar cane, carnauba palms, pau-brasil, aloe vera, jackfruit and eucalyptus. Compared with sun-grown coffee elsewhere in Brazil, the shade-grown coffee produces a lower yield, due to lower plant density (3000 plants/ha) and a lower yield per plant.

¹³ Fundação Cultural Educacional Popular em Defesa do Meio Ambiente; Popular Educational and Cultural Foundation in Defense of the Environment.

¹⁴ APEMB relies almost exclusively on a variety of Arabica bean called Catuaí.

¹¹ Serviço Brasileiro de Apoio as Micro e Pequena Empresas [English: Brazilian Support Agency to Small and Medium Enterprises].

From the start, COAGROSOL was dependent on one conventional importer for the main part of its production. This led to several kinds of ‘hold-ups’ initiated by the importer on the cooperative during negotiations and market exchange *ex post*. Firstly, when conventional farm-gate prices dipped below the guaranteed Fair-Trade minimum price (FTMP) of 870 €/MT (metric ton), the importer contravened the contract and paid a lower price. Conversely, when conventional prices increased above the FTMP, the cooperative was only paid the FTMP. Secondly, payments on frozen concentrated orange juice (FCOJ), which was the most important source of income for the producers, were held back by the importer during negotiations on other products traded from COAGROSOL. Finally, when payment took place it was not always the full amount. In 2006, dependency on one or a few major buyers downstream was felt particularly severely when the Swiss supermarket chain MIGROS decided to stop trading with the importer that was buying from COAGROSOL, due to dissatisfaction with the importer. At the time, MIGROS was purchasing 70% of the volume produced by COAGROSOL. On top of this, export prices declined in 2008 due to the depreciation of the US Dollar, and the producers of the coop were not paid for their deliveries. This eventually led to a conflict between the producers and management, as well as conflicts among the producers themselves when a new management board was elected. Some producers decided to leave the cooperative and, in 2009, COAGROSOL decided to streamline its operations by ceasing to trade organic vegetables. COAGROSOL had been selling its organic vegetables to ‘Horte e Arte’ (H&A), but lost this market when the intermediary collapsed in 2008. Since then, COAGROSOL has been struggling to find new outlets for its fruit production. On the one hand, it has maintained part of its activities within the export system by connecting with other Fair-Trade organizations (notably Altereco in France). On the other hand, COAGROSOL has reallocated part of its products through intermediaries providing supermarkets with orange juice, which is sold under the retailers’ own brand name.

The APEMB growers suffered from the dramatic increase in the world supply of organic coffee from 1997 to 2000, which led to predatory competition among coffee growers. In 2000, Classic Kaffe decided to stop buying from APEMB, since agreement could not be reached on lower producer prices. A new export opportunity with the North-American Zenway emerged, but this was not finalized due to a lack of finance for commercialization, the high cost of certification, as well as internal problems within the association. However, despite problems with the sale and export of organic coffee, CEPEMA stayed on and helped the producers to redefine their project strategies and to launch and develop a network for the local marketing of coffee, fruit and vegetables which would, at the same time, avoid the high certification costs, while potentially achieving modest price premiums. The project strategy was to explore the growth in tourism and to deliver baskets (a box scheme) to the district capital, Fortaleza. Reports in the news confirmed that the sale of “Café Ecológico Pico Alto” was launched in March 2003 in Fortaleza (FAO, 2003). The coffee was promoted as being “certified” by CEPEMA, and the fact that it was once exported, was advertised as being proof of its high quality.

5. Discussion

5.1. The three food systems: benefits and limitations for smallholders

Many Brazilian researchers emphasize the importance of refraining from promoting policies that force family farming into

the capitalist market competition mode of production (Abramovay, 1999; Almeida, 2002; Brandenburg, 2008; Schneider and Niederle, 2010). They claim that this would trigger exclusion for most producers, as well as the creation of new rural elite who would become the new managers of agricultural capitalist farms. What is suitable for agriculture in general is suitable for organics too, and the same researchers criticize policies that would support the development of the commercial food system that we described as driven by supermarkets. Instead, they are in favor of the agro-ecological model promoted in Brasil (and other countries such as Spain and Mexico) by the so-called “agro-ecological (social) movement”. In line with the activists from this movement, they consider that only this model, developed within the food systems that we called “alternative”, may promote solidarity and cooperation against competition and exclusion while facilitating the acquisition of autonomy and the empowerment of farmers. Such a defence of the agro-ecological model echoes broader enthusiasm for AFSs. Allen et al. (2003), Clarle et al. (2008) or Kneafsey et al. (2008) argue that the various types of AFSs illustrate a post-modern “peasant” resistance and a way to combat globalization and neo-liberal forces by constructing local relationships of trust, concern and reciprocity.

The case stories from the AFS largely supported the opinions of those in favor of the agro-ecological model. Emphasis was put on both reshaping the transaction process and facilitating cooperation among producers in a way that promoted solidarity, cooperation, information sharing, participative decision-making and the building of social ties. Such foundations enabled the farmers to maintain control of their developmental process, as well as the full ownership of their products. At the same time, farmers benefited from a continuous learning process, which was supported by a strong participative environment combining autonomy building with empowerment dynamics. If divergences, tensions and conflicts arose within the groups, Schultz (2006) and Brancher (2004) did not outline any process of exclusion, uneven capitalization, or land concentration at the farm level. Capitalization may have occurred (we do not have any information), but as described by the authors, most of it seemed to have occurred on a collective scale on the basis of shared properties and referred to transformation, delivery, marketing and communication facilities.

Conversely, the cases illustrating the inclusion of smallholders into the domestic and export oriented food system showed much more contrasting results. Participation in a food system driven by major retail chains entailed entering into a highly competitive market economy in which powerful capitalistic actors not only imposed very specific and stringent transaction conditions on the smallholders, but also constant changes to delivery requirements. From our own investigations in Veravà we found that what at first appeared to be a promising opportunity and financial bailout for the smallholders, turned out to be a highly competitive and exclusive system in which only the “best,” i.e. those adhering to an entrepreneurial logic, could succeed. While a number of the farmers from Veravà became excluded, continuous price-squeezes and a need for investments to remain competitive forced most of the others to increase their production volumes. This led to the accumulation of land and yields, benefiting only a minority of the growers, who in some cases even became managers of small agricultural holdings.¹⁵

Another negative aspect, which can be derived from the stories told here, is that the farmers had difficulty in overcoming the high transaction costs when entering the modern food procurement

¹⁵ In the APAC case, neither Schultz (op. cit.) nor Brancher (op. cit.) documented these consequences.

system. They had to be able to deliver a certain ‘critical mass of supply,’ which was only possible if they supplied to a private intermediary or if they joined a market association/coop. The farmers then faced an economic trade off between losing potential profit margins to an intermediary or enduring risky investment costs in establishing a coop for packing, processing and storage, as well as the time needed to coordinate and market their production. Often, farmers did not have the time and the skills to manage these tasks, so they hired a management team. Organizing a business in this way can lead to the so-called ‘principal–agent problem’¹⁶ or agency costs, which arise when participants from an organization (farmers being the « principals ») entitle and compensate an « agent » (management) for performing certain acts, which are useful to them. In this situation, mechanisms must be set up so the « principals » can ensure the accountability of the “agent”. However, in both situations reported here, farmers paid the price of failing to do so. A major reason for this was the strength of the paternalistic relations in the Brazilian business environment, which often prevented clearly shared property rights in the organizations.¹⁷

Considering the modern export food system, the cases documented here illustrate the difficulties that smallholders face when attempting to seize the opportunities presented by an extremely dynamic and rapidly growing global organic market. In the situations exemplified here, the farmer co-ops experienced “hold-up” situations initiated by their downstream partners. This ultimately forced the APEMB to exit the export market and triggered a severe crisis within the COAGROSOL. Not only are these outcomes a direct result of the farmers being dependent on a single buyer, but they also illustrate the harsh conditions imposed by a global market in which price volatility and competition are very strong. Even if organic production is accompanied by a Fair-Trade marketing system, such as the Coagrosol case, the results are not very convincing, since the buyer apparently did not follow the rules and the market ethics established under the Fair-Trade scheme. In both cases, a crisis in the co-ops was triggered when the buyers turned to other more price competitive suppliers. However, our cases also point to other aspects of weakness in the system. In the coffee case, the system was in no way viable without the financial aid granted by the State to pay for certification. When this support disappeared, the farmers were unable to shift to other export market opportunities. In the orange case (COAGROSOL), the farmers had to diversify their production and activities in the co-op in order to ensure its financial viability, generating the same principal–agent problems as those observed in the cases operating under the domestic food system.

Summing up all three food systems, we see that the arguments in support of pursuing the agro-ecological development based model for smallholder inclusion are confirmed in our case study analysis. However, the cases from the AFS show that not all farmers are satisfied with their conditions and opportunities for market exchange under these systems. Recalling that AFSs in Brazil are not only conceived to benefit smallholders alone, but also to establish solidarity and fair-trade relations with low-income urban consumers, this leaves farmers with only limited earnings when joining AFSs. As illustrated by our cases, this limitation drove some of the farmers to diversify and sell part of their production to higher-income consumers, thereby

disavowing their original commitment. In one of the cases (ARPASUL), a number of the farmers even chose to quit the alternative system and move into the domestic oriented food system driven by the supermarkets.

The overall problem though does not seem to be about earnings *per se*, but more about the balance and ‘trade off’ between the huge amount of time farmers invest in coordination and exchange practices within the AFS and the income the farmers receive in return. What may be interpreted as richness for some farmers (building social ties and participative decision-making), may indeed be experienced as high coordination and transaction costs for others. This means that only a strong adherence to the ideology and values inherent in the AFS will enable farmers to experience them as positive. Otherwise, they are likely to leave the system. This, by the way, exhibits the serious limitation in using only transaction cost economics to explain human behavior. Human decisions do not only rely on economic trade-offs and the exclusion of the social or psychological dimension of behavior may lead to misunderstandings.

Leaving the “alternative” system was, for the APRASUL farmers, strongly dependent on the possibility to engage in what they perceived as a more attractive opportunity, i.e. the progressive growth and structuring of the supermarket procurement system. Indeed, entering this system offered the smallholders the opportunity to dramatically increase their production volumes and – at least at the beginning – their income. Likewise, it also meant less involvement in highly time consuming farmers’ collectives, such as intermediary firms with a professional management team taking charge of the important tasks of coordinating and marketing the farmers’ fresh produce. As a result, it enabled farmers with a more entrepreneurial spirit to take advantage of other market opportunities. Such attitudes echo the growing aspirations of farmers in rural contexts, such as those studied here. Indeed, many Brazilian rural zones have experienced profound changes during the last decades. Relationships with the cities have increased in scope and density, resulting in the penetration of modern lifestyles and important social re-composition (Campanhola and da Silva, 2000; Wilkinson, 2008). Smallholders are growingly included in the consumer society and wish to benefit from its fruits and facilities. They therefore require openings with a higher income and are keen to turn to more profit-orientated marketing options. Values are changing too, and merit is increasingly achieved through economic success, thereby stimulating the development of entrepreneurial logic. In such a context, individualist oriented logics may easily take the advantage on collective strategies, which success always remain a challenge.

The recent growing opportunities related to restaurants and fruit and vegetable shops trying to go organic, as much as the expanding demand related to organic box schemes could create a mid-term market between what we depicted as AFS and the supermarket driven food system within the domestic market. Farmers would neither suffer from the dominant position of supermarkets, nor would they have to adhere to the ideology and values inherent in the AFS. They would thus be able to sell their product at better prices within more fair-trade relations without being strongly committed to a social development perspective. This, however, will inevitably bring new challenges, as farmers will have to be able to plan their production as well as deliver the food by themselves, while making sure that they can ensure continuity of deliveries. Meanwhile, it would mean that organics would take one more step to being restricted to wealthy people in Brazil, as it is currently the case in Northern countries, illustrating the difficulties of implementing original development patterns in an era dominated by capitalist logics.

¹⁶ In political science and economics.

¹⁷ In Brazil, where hierarchy and personal relations differentiate citizens, the magnetism of a specific individual is highlighted by his relationships. Paternalism, which emerges directly from this combination of power concentration and personalism (Tanure and Duarte, 2005) is still typical of Latin American management in certain contexts and notably in rural worlds (Martinez, 2005).

Table 2
The role of facilitators in reducing transaction costs internal and external, *ex ante*, *ex post*.

Food system		Alternative food system (AFS)		Formalized domestic food system		Formalized export food system	
Case		APRASUL (Farm association)	AECIA (Cooperative)	Horta e Arte (Firm, coop & farm association)	APAC (Farm association)	APEMB (Farm association)	COAGROSOL (Cooperative)
Transaction Costs found:	External to organization	<u>Ex ante</u> : Search, information, learning costs <u>Ex post</u> : Limited market in AFS, Growth opportunities in formalized domestic market	<u>Ex ante</u> : Search, information, learning costs <u>Ex post</u> : Limited market in AFS, Growth opportunities in formalized domestic market	<u>Ex ante</u> : Search, information, learning costs <u>Ex post</u> : Opportunistic behavior by supermarkets Hold up	<u>Ex ante</u> : Search, information, learning costs <u>Ex post</u> : Opportunistic behavior by supermarkets Hold up	<u>Ex ante</u> : Search, information, learning costs <u>Ex post</u> : Opportunistic behavior by exporter Hold up	<u>Ex ante</u> : Search, information, learning costs <u>Ex post</u> : Opportunistic behavior by exporter Hold up
	Internal at organization	<u>Ex post</u> : Uncertainty on market values Negotiation cost, Opportunistic behavior by farm members	<u>Ex post</u> : Uncertainty on market values, Negotiation cost	<u>Ex post</u> : Bounded rationality by members, Unclear property rights, Principal–agent conflicts	<u>Ex post</u> : Bounded rationality by members, Principal–agent conflicts	<u>Ex ante</u> : Asset specificity <u>Ex post</u> : Bounded rationality by members	<u>Ex ante</u> : Asset specificity <u>Ex post</u> : Bounded rationality by members Principal–agent conflicts
Institutional set up to reduce TC	Facilitator ID Actions	Church <u>Ex ante</u> : Establishing farm association, technical advice on organic production, bridging supply and demand, networking with Supporting Resource Environment <u>Ex post</u> : Mediating conflict, Company dissolved New company start	Church <u>Ex ante</u> : Establishing farm association, technical advice on organic production, bridging supply and demand, networking with Supporting Resource Environment <u>Ex post</u> : Mediating conflict, Farmers resolve conflict	Church <u>Ex ante</u> : Establishing farm association, technical advice on organic production, bridging supply and demand, networking with Supporting Resource Environment <u>Ex post</u> : Facilitator absent, Company dissolved	EMATER <u>Ex ante</u> : Establishing farm association, technical advice on organic production, bridging supply and demand, networking with Supporting Resource Environment <u>Ex post</u> : Facilitator absent, Company dissolved	CEPEMA, <u>Ex ante</u> : Establishing farm association, technical advice on organic production, bridging supply and demand, networking with Supporting Resource Environment <u>Ex post</u> : Facilitator supporting new domestic market strategies	SEBRAE <u>Ex ante</u> : Establishing farm association, technical advice on organic production, bridging supply and demand, networking with Supporting Resource Environment <u>Ex post</u> : Facilitator absent, Coop streamlining production (fruit) spreading into domestic market

5.2. The role of facilitators

The role of facilitators in relation to reducing transaction costs in the three food systems and the six cases analyzed is summarized in Table 2. The transaction costs are organized according to whether they are found *externally* or *internally* in relation to the organizations. Likewise, the determinants and types of transaction costs found in the various food systems are structured under the headings depending on whether they belong to an *ex ante* and later *ex post* market development. Similarly actions or lack of actions taken by the facilitators to reduce transaction costs *ex ante/ex post* are described.

As shown in Table 2, all the case stories illustrated the crucial role that non-profit facilitators had in reducing the high transaction costs external to the organizations concerning information, search and learning costs endured by smallholders when entering into organic markets. These reductions were achieved by, a) offering technical and educational support for the conversion to organic production, b) supporting farmers in establishing market organizations (farm association/co-ops), c) bridging actors (farmers, distributors and consumers) and reinforcing their respective trust towards each other, thus contributing to a positive market environment of frequency and certainty. Likewise, the involvement of these facilitators made it possible to connect the smallholders to a broader resource supporting environment: e.g. non-profit making regional to international organizations, including Fair-Trade organizations, public agencies, consumer associations, etc. This type of system innovation enabled the farmers to access funding from both governmental agencies as well as non-governmental organizations, which later turned out to be crucial for the farmers' initial and ongoing needs to innovate in labour, product and production processes.

One of the most distinctive features within this set of experiences was the varying availability of ongoing support for the farmer-groups *ex post*. In only three of the documented experiences (AECIA, APRASUL, AEMB) did the facilitating entities become involved beyond the initial stage of market inclusion and also offered continuous support in the developmental and marketing process. Basically, they helped the farmers to revise their marketing strategies and to reorganize their collective organization when the farmers were facing different types of conflicts and costs, internally as well as externally. Conversely, in the other three experiences (APAC, H&A, COAGROSOL), the absence of ongoing support from the facilitators to countervail bounded rationality among farmers operating as an economic group led to both opportunistic behavior and principal–agent conflicts, and hence the farmers' organizations in half of the cases went into liquidation. Even today, farmers involved in an asset specific production such as citrus fruit destined for export within the Fair-Trade Systems are struggling to survive. Hence, our case analysis points to the fact that there is a great need for smallholders to achieve various kinds of support *ex post* when entering competitive commercial food systems, whether they are for domestic or export oriented markets.

However, the NGOs were only involved in the development process *ex post* when farmers were included in the AFS, and public and para-public entities were absent *ex post* from almost all food systems, except for CEPEMA which supported the exporting coffee producers to divert into the domestic market. This leads us to conclude that the involvement of NGOs and faith-based organizations as facilitators in the current Brazilian context has some serious limitations. In line with the Brazilian agro-ecological movement, their activities are strongly oriented by values stressing transactional processes of trust, solidarity and social welfare, which makes them very critical of market-orientated dynamics such as those exemplified by supermarket driven food systems. NGOs and faith-based organizations are therefore reluctant to

support farmers who are involved in these food systems and, more generally, any dynamic farmer change that is dependent on capital and is commercially market-oriented. This means that in the current context, farmers included in the modern supermarket driven food systems can hardly rely on NGOs or faith-based organizations to help them face the huge challenges they experience in these systems.

Our work thus points to the fact that there is a serious need to improve the Brazilian public and para-public advisory systems dedicated to capacity building and extension for smallholders alongside the activist organizations (NGO, Faith-based etc.). Structures such as SEBRAE and EMATER, which are State specific, or "Casas da agricultura" (agricultural chambers) should be reinforced so that they are able to provide support at various market and developmental stages. This would include training farmers in business and organizational issues, ensuring that proper principal–agent relationships are established when helping farmers to form co-ops or market associations, helping in situations of conflict to secure sustainable solutions, finding reorientation strategies for farmers and groups of farmers who show willingness to either change or expand into another food system, or even to exit agriculture altogether to find employment outside the agricultural sector. In other words: to help smallholders in administrating the costs of ownership.

6. Conclusion

In Brazil organic farming is seen as a potential solution to increase incomes and improve the livelihood of smallholders. The Ministry of Agrarian Development (MDA), together with various organizations from the civil society (NGOs, Social Movements), have steadily encouraged and supported Brazilian smallholders to convert to organic production from the end of the 1990s' up to the present time. The program launched by the MDA in 2005 to support such a conversion¹⁸ specifically emphasizes that the organic boom should serve the interest of smallholders, fight poverty, social exclusion and foster their political inclusion into the Brazilian society (Schultz, 2006).

In this article we recalled six case studies exemplifying groups of smallholders converting to organic practices and selling their produce through what we depicted as an alternative food system (AFS), a commercial domestic food system driven by supermarket chains and an export oriented food system. The public food procurement system has been omitted due to the lack of solid scientific case analyses and we can only encourage further research on this food system by documenting the experiences made so far in Brazil.

A comparison of these cases showed that the AFS was the only one where farmers were able both to maintain control of their developmental process as well as full ownership of their products. At the same time, the smallholders benefited from a continuous learning process supported by a strong participative environment. However, not all farmers were satisfied with their conditions and opportunities for market exchange under these systems. Some felt that the 'trade off' between the huge amount of time they invested in coordination and exchange practices and the income they received in return, was unsatisfactory. What may be interpreted as richness for some farmers (creating social ties and participative decision-making) was experienced as high coordination and transaction costs for others, showing that only a strong adherence to the ideology and values inherent in the AFS would enable farmers to experience them as positive. In one of the cases

¹⁸ National Support Program to Ecological-based agriculture in Family farming Units.

a number of the farmers even chose to quit the alternative system and move into the domestic oriented food system driven by the supermarkets to resolve this problem. In this regard, AFS as conceived in Brazil on the behalf of social movements may be seen as highly utopic, a point of view that reminds us that the notion of Alternative food systems itself has been strongly challenged during the last decade within academic debates.

Conversely, in the other two commercial food systems, the one we stated as the commercial domestic and the export one, farmers entered highly competitive markets in which powerful capitalistic actors not only imposed very specific and stringent transaction conditions on the smallholders, but also constant changes to delivery requirements. In a context of strong asymmetric power relations within the chains, the farmers experienced both opportunistic behavior and “hold-up” situations initiated by their downstream partners, leading to the exclusion of the weaker farmers and/or in the closure of their farm association/coop. Besides competition, other critical points related to the need for the farmers to set up formalized business organizations and to be able to lead with complex and formalized transaction rules to engage with downstream market actors in these food systems. Research showed that they lacked the knowledge (and time) to run such organizations as well as to engage with these transaction rules. This led them to hire professional management teams but under such conditions they could not be in control of classical principal–agent conflicts.

Our analysis showed that the NGOs, faith-based organizations and public-related entities were all strongly committed to the inclusion of smallholders into the organic market, and they lowered the numerous *ex ante* transaction costs. However, when smallholders entered the modern commercialized food systems, the array of multifaceted problems and transaction costs *ex post* were not addressed seriously and professionally. Due to the fact that NGOs and faith-based organizations were reluctant to support smallholders in commercially market-oriented food systems, efforts should be taken to provide a policy framework, which enables public-related entities to both secure sustainable inclusion, as well as exit strategies for those who experience exclusion.

It is important that such a policy framework provides solutions to the broad diversity of constraints, motivations and perspectives experienced by Brazilian smallholders, whether they are keen to engage in social development perspectives or to enter more profit-orientated markets. Examples of elements in such a policy framework could be a) the establishment of a task force pro-actively helping and training farmers to develop clear principal–agent rules when setting up a cooperative or a market organization, b) to mediate and function as a neutral third party when crises occur in farmers' organizations, c) to facilitate dynamic flows between the different food systems, thereby compensating the bias of the NGOs and, d) to provide relevant exit strategies whether related to non-farm activities, or part-time farm opportunities.

In other words, the role of the state should be to establish an institutional framework supporting market transactions that could secure longer term legitimacy of organic food production, economic growth and social stability, as opposed to cases with a short term charitable engagement in a profit oriented market, none of which proved to be sustainable.

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