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Global Value Chains and Social Upgrading of Clusters: Lessons from Two Cases of Fair Trade in the Brazilian Northeast

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This article analyses how cluster integration in global value chains affects social upgrading processes in two local industrial districts in the agro-industrial sector (oil for cosmetics and organic honey) located in the Northeast of Brazil, which are both involved in fair trade relations with foreign clients. Several lessons are drawn on the basis of these case studies in relation to how economic upgrading can be aligned with social upgrading in local cluster settings. We conclude that global value chain linkages cannot alone explain the social upgrading processes that we observe in these cases. The presence of strong local organizations was key in driving social upgrading processes both prior to and after the insertion of both industrial clusters into the global economy.

KEYWORDS social upgrading, governance, global value chains, fair trade, Brazil, Piauí, Maranhão

Introduction

This article explores the conditions under which industrial cluster participation in global value chains may enable small producers to adopt managerial and technological innovations that protect the environment and improve the conditions of workers in developing countries. Or phrased differently, the conditions under which cluster participation in global value chains facilitates 'social upgrading', which we here define as a long-term development strategy in which formalized firms pay their taxes, abide by national and international environmental, labour, health and safety regulations / standards and contribute to local social development (Puppim de Oliveira,

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2008a; Barrientos *et al.*, 2010). We focus on the kinds of value chain linkages — global and local — that are likely to generate economic[1] and social upgrading in developing country clusters, and how processes of economic and social upgrading are interrelated.

Our article makes a contribution to the development of the embryonic literature on global value chains, industrial clusters and corporate social responsibility (CSR) in developing countries. First, it makes an empirical contribution by analysing two Brazilian clusters that are tied into global value chains, and which have had a relatively long experience in engaging in social upgrading processes. These have had concrete social and environmental outcomes, such as providing support for production of organic products or effecting an increase in access to land for small producers. Second, the cases are from the same region and in similar economic sectors, both based on local-level experiences of natural resource extraction. This allows us to understand the specific characteristics of the local producer organizations, the environment in which they operate and how their global value chain linkages facilitate and/or constrain social upgrading processes within both clusters. Third, in theoretical terms, we bring together the literature on industrial clusters in developing countries (Humphrey & Schmitz, 2000, 2002) with the recent work on labour in global value chains. This latter body of work investigates how the participation of developing country producers in global value chains affects issues such as workers' wages, the formalization of work processes and firm compliance with national labour legislation. It also ties in with debates about the role of national work and employment contexts in the developing world as well as the agency of workers themselves in enhancing or undermining social upgrading processes (Barrientos *et al.*, 2010; Bernhardt, 2013; Coe & Hess, 2013; Cristian, 2012; Milberg & Winkler, 2010; Singh, 2013). Hence, while our article is not the first to discuss the linkage between economic competitiveness and social upgrading in developing country clusters (see, for example, Puppim, 2008a), it makes two distinct contributions to this emerging area of work. First, it investigates how global value chain linkages and local cluster organization facilitate and/or constrain social upgrading in two Brazilian clusters. Second, it establishes an analytical framework that seeks to explain how social upgrading processes are enhanced and/or undermined by developing country cluster participation in global value chains.

In the process of undertaking this research project, we carried out fieldwork in two clusters in the Northeast of Brazil, the poorest region of the country. The first cluster is located in Lago do Junco municipality in the State of Maranhão. It is formed by a co-operative of small producers, mostly women, that manually breaks the nuts of a local palm tree called 'babassu' to extract an oil which the co-operative sells to a large multinational company under a fair trade agreement. Simplicio Mendes, in the interior of Piauí state, is home of the second cluster. The second cluster produces organic honey for the domestic and foreign markets and is also involved in fair trade to some extent.

The rest of the article is structured as follows. First, we outline our theoretical framework that draws upon the industrial cluster, global value chain and social upgrading literature. In the next section, we discuss our methodology before carrying out our empirical analysis of social upgrading processes in the honey and babassu clusters in Northeast Brazil, outlining some of the main lessons learned from these

case studies. Finally, the conclusion contains our main findings and the implications of our analysis for future research and policy in this area.

Clusters, upgrading, and global value chains: the literature

We define clusters as a geographic concentration of interconnected economic agents (firms and individuals), including suppliers, service providers and supporting organizations, such as local governments, non-governmental organizations (NGOs), co-operatives and business associations. These agents may also interact with small and large firms and other organizations located elsewhere.[2] We focus particularly on clusters involving small producers as they may play a vital role in promoting local development processes and also tend to be more socially embedded in their home regions than is sometimes the case with larger firms that operate across multiple locations (Radas & Božić, 2009). Despite these potential strengths, small firms often operate with poor social and environmental standards and struggle to comply with national labour and environmental legislation (Del Brío & Junquera, 2003). In fact, small firms often face distinct challenges in relation to improving their social and environmental performance because of a lack of resources and information at the firm level, uncertainty regarding the potential benefits of engaging in social and environmental management practices, cultural scepticism among small-scale entrepreneurs, insufficient economic incentives and unclear legislative frameworks that make it difficult for small-scale entrepreneurs to know what social and environmental management issues they should prioritize (Hillary, 2004).

According to the literature on this topic, small firms in developing country clusters often need to innovate with the aim of upgrading their products and production processes, thereby improving their competitiveness. The literature on small firms in developing countries usually defines innovation as 'a new or significantly improved product (good or service) introduced to the market as well as a new or significantly improved process introduced within the enterprise' (Radas & Božić, 2009: 438). In our case, innovation could also include social innovations, which we here broadly define as improvements in the social aspects of business operations, whether these are directly related to the production process or not. The small firm literature also distinguishes between different types of innovation, including administrative or technical, radical or incremental, continuous or discontinuous (Massa & Testa, 2008).

When looking at the capacity of individual small producers to innovate, the literature identifies some limitations regarding their resources and innovation capabilities, including lack of research and development activities and limited staff education and training in these types of enterprises (ibid). Industrial clusters are perceived as entities that may overcome these limitations of individual firms because clusters can create collective institutions such as networks of social relations (Coenen & Díaz López, 2010), exposing small-scale local entrepreneurs to new insights and business concepts. At the same time, clusters also facilitate the establishment of linkages between small firms, larger enterprises and research institutions in the local context of firm operations (Radas & Božić, 2009).

The promotion of clusters as a unit of analysis may be considered as a strategy through which it is possible to develop collective solutions that improve local social

and environment standards and practices. When considering the social and environmental aspects of cluster development, it is important to bear in mind that small firms tend to be technically and socially rooted within these local production settings (Cassiolato *et al*., 2003). Small firms in the same cluster may not only be physically co-located, but may also share common social and political objectives as a result of their continuous interactions with one another through both formal and informal local social networks. Moreover, in our view, an analysis of economic and social upgrading within developing country industrial clusters needs to consider the influence of non-firm actors that are internal and external to the cluster. This helps us gain a broader understanding of the economic, social and political contexts in which global value chains touch down in local cluster settings (Puppim de Oliveira, 2008a).

Global value chain analysis seeks to understand the economic, political and social institutions that frame value chains (Humphrey & Schmitz, 2000, 2002). These institutions shape the relationships among the different participants in the chain and other local organizations (Gereffi *et al*., 2005). In the case of clusters, these include both economic agents (e.g. firms, co-operatives and individual producers) and the supporting organizations that play an important role in shaping the actions of participants in the chain. However, critics of the global value chain approach argue that it does not encompass the complexity of the spatialization of the global production and consumption networks. They suggest that the concept of global production *networks* might better capture how places and people are affected by and can be agents of change in the organization of economic activities locally and globally (Coe & Hess, 2013; Kelly, 2013).

An extensive literature on clusters exists which is not merely conceptual in nature. It also proposes policies and tools to enhance the impact of clusters on local economic development (Altenburg & Meyer-Stammer, 1999; Schmitz, 1995; Schmitz & Nadvi, 1999). Most industrial cluster literature focuses on issues such as productivity, technology development and competitiveness (Schmitz, 2004, 2005; Walker & Minnitt, 2006), and less on the social and environmental issues that arise as a result of firm operations. However, there is an emerging literature on clusters and CSR, here broadly defined as the labour, social and environmental aspects of cluster development (Lund-Thomsen & Pillay, 2012; Puppim de Oliveira, 2008a). The concepts of clusters, global value chains and CSR can be analytically linked through the study of so-called 'fair trade' initiatives. Even though there is a longstanding debate on fair trade (Archer & Fritsch, 2010; Telser, 1960), and while many studies have focused on consumer behaviour in relation to fair trade (Castaldo *et al*., 2009), this article fills a gap in the literature on this topic by looking at whether, how and why cluster actors in developing countries respond to fair trade market and non-market interactions. As mentioned earlier, we explore this topic through the analytical lenses of the concept of social upgrading.

Research on industrial clusters in developing countries has only recently begun to explore the interlinkages between global value chains, economic and social upgrading in developing country clusters (Puppim de Oliveira, 2008a). Economic upgrading means enabling local producers to achieve higher levels of productivity and to move into higher value-added aspects of production. It also gives them access to export markets and a means of increasing their knowledge of production processes via interaction with clients in developed countries (Cammett, 2006; Milberg & Winkler, 2010).

Thus, new opportunities for economic upgrading might have the potential to reinforce the implementation of social and environmental standards in developing countries. For example, nature-based tourism might become one of the driving forces in the creation of protected areas in Brazil (as well as in other parts of the world), both to promote nature-based tourism itself and to protect the environment from unmanaged negative impacts (Puppim de Oliveira 2005, 2008b).

However, economic upgrading can also have negative effects on social upgrading as it may allow firms to earn economic rents by creating entry barriers. In the absence of secure rent as a result of competitive pressure, firms may also be driven to adopt cost-cutting measures at the expense of labour (Singh, 2013). Labour strategies in response to commercial and competitive pressures can vary between a 'low road' involving social downgrading — a move to lower value activities, undermining workers' employment, rights and protection — and price competition. It may also result in a 'high road' involving both economic and social upgrading (Barrientos *et al.*, 2010; Puppim de Oliveira, 2008a).

However, economic upgrading is not always translated into better environmental or social conditions for farmers or workers such as better wages or safer working environments (Puppim de Oliveira, 2008a; Singh, 2013). For example, the development of a new product or the introduction of new production processes may result in the creation of more pollution or deteriorating occupational health and safety in the workplace. For instance, Bernhardt (2013) discusses instances in which economic upgrading is not followed by social upgrading. Examining the link between global production systems and environmental and social upgrading in the apparel value chain, Bernhardt argues that economic upgrading processes, such as an increase in the value or quality of a product, is not always followed by an increase in sectoral employment and wages.

In other words, the relation between economic and social upgrading depends on the local context in which global value chains 'touch down', and how small suppliers are inserted into these chains. Here, the role of value chain governance is fundamental as governments, firms, workers, consumers, NGOs and aid organizations can influence chain co-ordination and economic as well as social upgrading in developing country clusters. Governance refers to non-market co-ordination of economic activities (Singh, 2013). It implies that key actors in the chain determine the division of labour between participating firms and the question of which products, processes and standards developing country suppliers are required to use/abide by in order to participate in the chain. For instance, governments play a key role in influencing economic and social upgrading in cluster settings by enforcing national labour and environmental laws, promoting public policies that favour both types of upgrading, and by intervening in the economy through tariff-setting or the introduction of other forms of market regulation (Posthuma, 2008). Moreover, social and environmental market requirements can also go beyond government regulations and create incentives for firms to upgrade in social and environmental terms. For example, firms in furniture clusters in Southern Brazil reported that their international clients imposed higher environmental and social standards on them than local regulatory agencies (Puppim de Oliveira, 2008c). However, it is not always the case that global value chain participation compels producers to adopt higher standards that benefit small

firms. For example, as Selwyn (2013) has demonstrated, small producers may sometimes be excluded from chain participation altogether if they are not capable of meeting social and environmental standard requirements.

Therefore, in order to advance current research agendas on economic and social upgrading in developing country clusters, we set out to evaluate how global value chain participation may enable cluster-based firms to improve their social, environmental and economic performance in the developing world. In our understanding, local, national and global institutions are important in shaping cluster responses to global value chain pressures. In the next section, we describe how we gathered data in two clusters in the Northeast of Brazil in order to empirically study the linkages between cluster participation in global value chains and economic and social upgrading within these cluster settings.

Methodology

In our research project, we used the case study method (Ragin & Becker, 1992) to understand economic and social upgrading processes in the babassu cluster in Lago do Junco, Maranhão State, and the honey cluster in Simplicio Mendes, Piauí State (see Figure 1). The two clusters are located in the Northeast of Brazil. They were chosen, because they have engaged in a series of economic and social upgrading processes in the last half century, and because they both have 'fair trade' arrangements with international buyers, which — at least in theory — should facilitate social upgrading within both clusters.

Primary data was initially collected through semi-structured interviews with 180 actors in both cases in 2005 and 2006. The interviews were focused on issues such as working conditions, educational standards, fair trade practices, sustainable activities, political participation, economic and social upgrading. Secondary data was collected from 2005 to 2010 to complete the cases. Both locations were revisited three times, from 2010 to 2013, when further semi-structured interviews with 38 informants were conducted again in both cases. The second round of interviews focused on how cluster participation in global value chains affected economic and social upgrading in both locations.

The two clusters in Northeastern Brazil

In this section, we analyse how global value chain and local cluster actors in the two Brazilian cases influenced economic and social upgrading processes in these settings. We first introduce the economic and social organization of these clusters before we move on to analysing ongoing social upgrading processes in both cases. This then leads us to a discussion of how the interaction between local cluster and global value chain actors may facilitate and/or undermine social upgrading processes in industrial districts in the developing world.

The 'babassu breakers' cluster in Lago do Junco, Maranhão

The babassu palm tree (*Orbignya phalerata*) is used for production of oil and charcoal in the state of Maranhão in Northeast Brazil. The oil coming from the palm's nuts is used in several sectors such as food, cosmetics and biofuels. Nut products

FIGURE 1 Brazilian map locating honey and babassu clusters in Northeastern Brazil (IBGE, 2014).

started to be exported in 1911 (Wilhelms, 1968). The oil became Maranhão's main exporting commodity in 1980. However, the increasing production of substitute oils led to a decline in the production of babassu oil over time (May, 1990), reflected in a fall in Maranhão's exports from 144,419 tonnes in 1980 to 109 tonnes in 2005. As production levels decreased, the state enacted the 'Babassu Livre' Law in 1986. This law not only aimed at protecting the palm trees that were being burned and cut down to provide space for other rural economic activities, it also supported the practice of nut-breaking, enabling 'nut-breaking' women to access nuts on both public and private land. Previously, the nut-breaking women had gradually been denied access to the palm trees as the number of land enclosures had increased in the state over time.

The Médio Mearin region studied in this research project has approximately 11,000 women supporting their families through the extraction and sale of babassu nuts and oil (Silva & Araújo, 2004). This case is specifically about a cluster in the region of the Lago do Junco municipality (9,833 inhabitants) in Maranhão, located 223 km

south of the state capital, Sao Luiz. The area studied encompasses a co-operative of approximately 1,000 'babassu breakers'. These are women who gather nuts from the forest floor and break them manually inside or just outside their houses. The nuts are pressed to extract the babassu oil. Every bit of the nut has another use, even the husks, which are used as cooking fuel in the workers' homes.

The cluster was consolidated as a result of a government initiative aimed at redistributing land to peasants following demands from rural social movements in 1988. After the settlement was established in 1980, a local association of producers was created in 1982 with funds from national and international aid organizations. In 1986, the association became a co-operative called COOPALJ (Cooperative of Small Agro-Extractivists of Lago do Junco), which processed the babassu and served as a purchasing organization that also promoted economic and social upgrading among the local producers and their families.

Since its creation, different support organizations have provided COOPALJ with basic managerial skills and technology transfer. One of these organizations is ASSEMA (Association of Agrarian Reform Settlements in the State of Maranhão), a grassroots association established to support settlers that come to the area. ASSEMA was responsible for developing fair trade contracts with Italy, Germany and the United States (e.g. Cultural Survival, Aveda and Pacific Sensual). Over time this resulted in annual sales of up to 49.6 tonnes of babassu oil with premium prices.

A long-term fair trade relationship with The Body Shop (now owned by L'Oréal, but at that time an independent company known for its socio-environmental leadership) started after it recognized that COOPALJ had both a good product and invested in social upgrading processes. The Body Shop guaranteed the purchase of a minimum 10.8 tonnes of babassu oil every year until 2005, after which date annual purchase was increased to 17.8 tonnes a year.

Several upgrading processes took place prior to the co-operative's insertion into the global economy, and global value chain participation helped to enhance existing economic and social upgrading processes in the cluster. Prior to entering the global value chain for oil production, the mandatory environmental conservation law (Babassu Livre Law) and the land settlement law for babassu breakers had both been enacted in 1986. This was followed by the creation of a production centre originating from COPPALJ. After joining the global value chain with The Body Shop as the main buyer, ASSEMA supported the creation of homeschooling programme whereby parents were taught to read and write. This created a 'domino effect' as they began teaching their own children the same skills. ASSEMA also supported the establishment of local 'cantinas', communal grocery shops, the initiation of nut purchasing centres and a soap factory in 1994. In 1998, improvements took place in relation to refining oil processing techniques. In 2000, the babassu oil was fair trade certified, which allowed the co-operative to market itself as a fair trade producer at home and abroad. In 2002 the logistical infrastructure was improved to increase the volume sent per container and the COPPALJ managers were trained in negotiation practices and also learnt the necessary techniques to extract essences for soaps in 2005. In other words, it appears that the establishment of COPPALJ and the support of ASSEMA created the necessary means for the local population to exploit a natural resource commodity more sustainably.

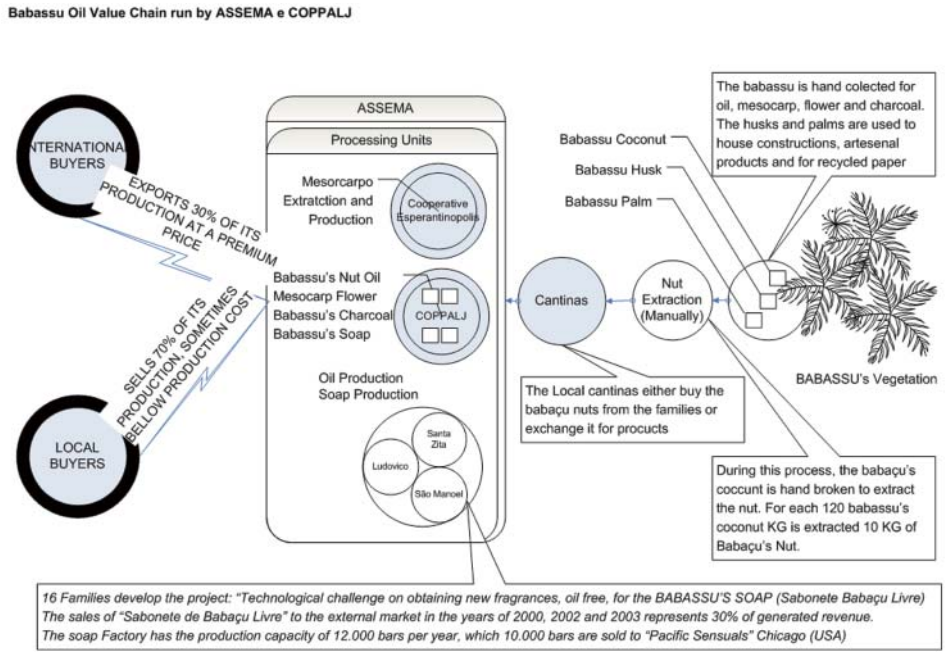

FIGURE 2 Babassu value chain.

Figure 2 summarizes the babassu value chain. First, the babassu coconuts are collected manually before being broken by the babassu breakers. Coconuts are collected from private land around the villages since babassu breaking is recognized as a protected practice. All nuts are purchased and processed by COPPALJ through the 'cantinas'. ASSEMA assists in transporting these products and in interfacing with local producers.

It appears that global value chain participation was one reason why the cluster was able to embark on a 'high-road' strategy. In other words, international customer preferences for fair trade products in external markets created opportunities for economic upgrading in the cluster. The Body Shop provided the means for cluster maintenance, as the premium price of around US$3.00 per kilo was at least three times higher than local prices. Since The Body Shop purchased only around 30 per cent of cluster production, the producers were forced to sell the other 70 per cent of the oil produced in the local market, thus supplementing their incomes.[3]

In many ways, it appeared that the cluster's insertion into the global fair trade value chain created a win–win situation. The utilization of babassu oil for cosmetics and special soaps provided The Body Shop with new products under the fair trade label. The introduction of new legislation supported the emergence of the women's association of nut breakers and helped to maintain the fair trade relationship. Thus, the participation in fair trade value chains tied the cluster into a contract requiring it to continuously invest in social upgrading processes. Nevertheless, the almost exclusive relationship with The Body Shop and three local buyers placed the cluster in a locked-in[4] position, as those clients valued and were mostly interested in buying the

oil produced by breaking nuts by hand, with ensuing low productivity levels and high occupational health and safety risks. There was a lack of technological advancement and professional management in babassu oil production in the cluster. In addition, local producers did not enter into strong relationships with technological institutions, such as local universities, which might have helped them in sustaining local economic and social upgrading processes.

Case 2: The organic honey cluster in Simplicio Mendes in Piauí state

This case encompasses the Simplicio Mendes municipality as well as another 32 municipalities in the same region that produce honey for the local co-operative, COMAPI[5] (Simplicio Mendes Apiculture Cooperative). The co-operative serves as an umbrella organization for local producers to process and sell their organic honey, and production takes place in a semi-arid region with 500–800 mm of annual rainfall on average. Apiculture practices (that is, keeping large-scale honey bee colonies with the aim of producing honey and other products including pollen, beeswax and royal jelly) in Simplicio Mendes were the result of two man-made factors: environmental conservation and the use of a hybrid bee (*Apis mellifera mellifera*). Both factors, combined with hot and dry weather, created an environment in which this species of bee had high productivity levels and low chances of falling ill, one of the main problems faced by European beekeepers.

Apiculture became an organized economic activity in Piauí state during the 1970s when honey-processing companies started to migrate to the southern part of the state (Mendes, 2003). During the previous and following decades Piauí experienced a dramatic growth in the production of honey. The state jumped from producing 18 tonnes per year in 1950 to 4,278 tonnes in 2009 (IBGE, 2014). The state exported 2,530 tonnes in 2009, generating US$6.3 million in state revenue (Fortes, 2010).

Prior to the cluster's formation, the main social concern of local leaders was to maintain the population in this semi-arid region. For this purpose, the dioceses started a land distribution programme in 1980. This programme settled local inhabitants around Simplicio Mendes. From 1980 to 1989, the diocese supported different development programmes including apiculture. In 1993, eight tonnes of honey was produced. At this time, most of the production was sold to intermediaries, and the producers were not in a position to directly sell into international markets. Thus, in 1994 COMAPI was created with 124 associates to offer a solution that could help local producers bypass these middlemen and directly insert themselves into the global fair trade/organic value chain for honey production. This was done in the hope that local producers would find better prices for their products in the global market.

In 1995, the co-operative received a grant from the federal government to create a processing centre. Thus, in 1997 the co-operative was able to start selling bottled products; production jumped to over 60 tonnes per year. Production continued to increase, to 70 tonnes, following the introduction of artificial bee feeding practices and shading techniques, which aimed to maintain swarms all year round by 1998. However, local sales could not increase any further as local consumers could only purchase a limited amount of honey. At the same time, other consumer markets tended to be more distant.

However, the links between COMAPI, the local public university (UFPI), the Brazilian Agriculture Research Company (EMBRAPA) and the small business supporting bureau (SEBRAE, a quasi-public national organization) provided a simple solution for honey production in 2000 — the creation of a honey room (an extraction room with proper sanitary conditions) in each production centre. This economic upgrading initiative made it possible for COMAPI to insert its products into the international market and sustain its production base. The first export order was obtained in 2001 as part of a fair trade relationship with Libero Mondo, an Italian fair trade promotional organization. The export of 40 tonnes of honey was also made possible because the co-operative adopted a local technology that could homogenize the honey and reduce its humidity to 12 per cent ratio, allowing the co-operative to obtain certification from the federal government making it possible for the co-operative to legally export its products. After this global value chain link had been established, the co-operative developed new accounting techniques to acquire tax incentives from a DBA ('doing business as') programme called 'Nutritivo Mel'. As part of this programme the co-operative could be reimbursed 17 per cent of its sales tax in 2003. A SEBRAE partnership also allowed the co-operative to receive another federal grant to send one of its successful members to visit other production base members and teach them 'best practice' production techniques.

Libero Mondo attested that COMAPI production was sustainable and organic. This required honey producers to reduce or discontinue the use of pesticides. COMAPI obtained its fair trade and organic certification in 2004 with the help of local aid organizations. Whereas the relationship with Libero Mondo did not continue as a result of poor communication between the co-operative and the Italians, it nevertheless exposed the co-operative's high quality product to international buyers. By this time, European and American buyers had contacted the co-operative directly, purchasing almost its entire production at the time.

In 2005, the cluster was producing over 120 tonnes of honey and started to advance 50 per cent of its sales to its associates to initiate social upgrading processes in the cluster. In the same year, the co-operative and support organizations in the cluster created the first female apiculture association in Piauí state. The cluster kept growing and involved 930 families owning 22,000 beehives distributed over 35 municipalities in 2010. The maintenance of honey quality standards provided the cluster with the product and process upgrading necessary to continue operating in the international market. It exported 240 tonnes of honey in 2009, resulting in a profit of US$685,000 to be shared between 32 honey-producing associations in the cluster. The co-operative sold approximately 95 per cent of its produce to one or two buyers in the international market.

Figure 3 summarizes the organic honey value chain. First, families need to acquire a beehive and become members of one of the associations certified by COMAPI (the green circles on the map). The association helps the members to start their honey production by capturing the swarms. Every apiary is family-owned, which means that there are enough work opportunities during harvest time. The honeycombs are transported to the honey room of each association, wherein the honey is removed in proper sanitary conditions. Before the honey is transported to the co-operative, it is stored in 20 kg barrels; each family's barrel is labelled in order to provide advance payment and ensure participation in profit-sharing. The honey is processed at the

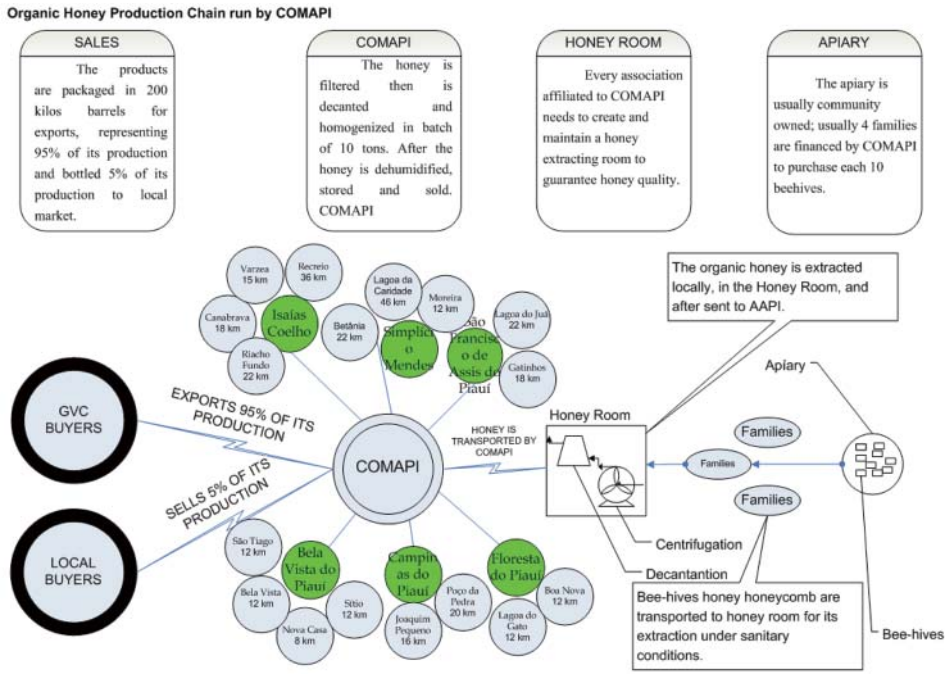

FIGURE 3 Organic honey value chain.

co-operative's facilities according to international standards and the bottles are labelled for the domestic market and for export.

The relationship with international buyers generated product upgrading because the co-operative had to attain export standards in terms of quality and sanitary requirements. The relationship with local aid organizations facilitated process upgrading, which increased productivity levels, and these organizations also supported social upgrading processes in relation to honey production. Other organizations, such as SEBRAE and local universities, were important in supporting product and process upgrading. Moreover, public organizations had provided the local cluster with the initial infrastructure processing capability in 1995. The new social practices also generated employment locally, such as sale of apiculture safety equipment, business consulting on organic honey for new producers, sale of honey processing equipment and production of other honey byproducts (such as organic propolis or wax).

Discussion

The two case studies present diverse forms of interaction between local cluster producers and international buyers in similar industries. Based on the cases, we can draw some lessons regarding whether, how and under what conditions global value chain participation influences social upgrading in clusters. Those lessons may to some extent be specific to the economic, political, social, environmental and cultural circumstances in which the clusters were embedded. Nevertheless, they can still be a source of inspiration for local entrepreneurs and public policy-makers at local,

regional, national and international levels who wish to design better value chain and cluster governance strategies that promote social upgrading in local industrial districts in developing countries.

The nut-breaking and honey clusters already followed sound social and environmental practices before they were integrated into the global economy. For example, honey production was already organic. However, participation in global fair trade/organic value chains helped to expand the support available to many producers, improved the quality of the honey produced and increased productivity levels. Entry into global value chains was also important as it helped the local producers to obtain organic honey certification. In Maranhão, babassu was an important economic activity for local women decades before they began to sell their products to The Body Shop. The importance of babassu for the local economy led the state government to create a law to protect the babassu palm-tree and the right of the nut-breaking women to access private property where the trees were in abundance. The main motivation on the part of the state for enacting this new piece of legislation appeared to be short-term economic considerations (a fall in exports), but this decision had important social and environmental implications for long-term local development as babassu became protected and women were able to organize themselves in associations. In addition, the 'babassu-breaking' women from Maranhão had struggled to create a sustainable oil-producing industry for over 20 years prior to the establishment of the fair trade relationship. In spite of these advances, they have still been unable to widely diversify their export-orientated production from oil to other products.

In sum, the integration of the Brazilian honey and nut-breaking clusters into global fair trade and/or organic value chains helped to sustain and reinforce existing social upgrading processes in both clusters by providing a premium and/or stable demand for honey/bambassu products. Moreover, global value chain integration meant that cluster producers had to comply with the requirements set down in international labour and environmental standards whose implementation was facilitated by local support institutions.

At the same time, strong local institutions were needed to translate the external economic and social demands of buyers into the development of new products and production processes as well as social upgrading processes more broadly. Participation in global value chains with favourable price incentives was insufficient in itself to make social and economic upgrading in the local clusters possible. Local change agents that could support and/or demand that social upgrading should be undertaken within these clusters played a critical role in this transformation process.

Producers in the organic honey cluster were supported by the Oeiras Diocese with land distribution programmes and the establishment of economic alternatives such as apiculture, goat-raising, production of sesame oil and farming. Later (in 2000), UFPI and SEBRAE helped the cluster to upgrade in technological terms so that cluster producers could obtain international export market certification. This enabled local producers to export a large part of their honey production. COMAPI also helped the cluster producers to obtain the assistance of Libero Mondo in relation to organic honey certification, as many local producers had otherwise been excluded from accessing the fair trade benefits. Many communities were not able to obtain mainstream (Western) market standard certifications on their own, even though their

products and processes exceeded the minimum requirements for obtaining such certification (Marston, 2013). Finally, the babassu cluster relied on another local aid institution, ASSEMA, to make contacts with customers and provide the institutional infrastructure that could support community members in social upgrading initiatives such as 'cantinas', schooling, community farming and profit sharing.

Conclusion

In this article we have explored how cluster integration into global fair trade/organic value chains affected social upgrading processes in two local industrial districts in the agro-industrial sector (oil for cosmetics and organic honey) located in the Northeast of Brazil.

Our main findings indicate that global fair trade/organic value chain linkages can play an important role in supporting existing processes of social upgrading within local industrial clusters in developing countries. Our case clusters were both already engaged in social upgrading processes prior to their integration into global fair trade/organic value chains. In other words, both cases show that fair trade chains might 'pick' local producers that have already engaged in social upgrading up to a certain point, thus rewarding them, instead of working with clusters that need to engage in social upgrading from scratch. Hence, the development of local organizations to support social upgrading processes in cluster settings appears to be critical before local producer organizations attempt to insert themselves into global value fair trade/organic value chains.

However, whereas this article has pointed to the positive potential of developing country clusters participating in global fair trade/organic value chains, there is also a need to remain cautious about the wider implications of our analysis. First, as our analysis has shown, although cluster integration in global value chains has the potential to boost local development, this is — on its own — an insufficient step to address social upgrading challenges in local cluster settings. Second, cluster integration into the global economy may make local producers dependent on the favourable market conditions created by fair trade/organic importers. If the trading link between local cluster producers and fair trade/organic importers suddenly ceases, this leaves local producers in the vulnerable position whereby they might lose their source of livelihood. Third, there is also a risk that the benefits provided by organic and/or fair trade trading relations might give local governments in the developing world an excuse to reduce their support for social upgrading processes in local cluster settings. Finally, cluster participation in global value chains may facilitate the process of social upgrading among first-tier producers in the cluster. However, without wider changes in the national, regional and local contexts of work and employment in developing countries, it may be difficult to move social upgrading processes beyond the first tier of the cluster to other lower-tier producers in the cluster as a whole.

Notes

[1] Economic upgrading — making better products more efficiently or moving to a more privileged place on the value chain (based on Giuliani *et al.*, 2005).

[2] We do not distinguish cluster from similar definitions, such as local productive arrangements (Arranjo Produtivo Local, or APL), widely used in the Brazilian literature meaning locally embedded

innovation systems (Amorim, 1998; Cassiolato & Lastres, 1999; Lastres & Cassiolato, 2002), which also include the so-called informal clusters (Mytelka & Farinelli 2000), wherein innovation capacity, trust and skills are low.

[3] Soap factories can purchase babassu oil locally. These factories use any kind of oil to produce soap and force local producers to sell babassu oil at the same price as common oils, such as soy oil.

[4] SMEs often suffer from lock-in, when a business depends on a small group of much larger corporations to buy their products and the relationship manifests as quasi-hierarchical (Humphrey & Schmitz 2000, 2002).

[5] COMAPI was known as AAPI previously, but we use only the name COMAPI throughout the text to facilitate understanding of the case.

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