

**Globalization, Corporatization and the Organic Philosophy:  
*Social Sustainability in Question***

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## ***Introduction***

The term *organic* has been used as an adjective to refer to something that is pure, unprocessed and natural. Food, for the vast majority of human history was organically produced. Today, it is understood as an alternative system of agro-food production in Canada and in the United States (US). The traditional philosophy that has guided organic agro-food (OAF) production emphasizes the importance of environmental sustainability, while also ensuring that the value stays with the producer, (Guthman, 2001) and encourages "...local knowledge and a sense of place." (Vos, 2000: 251). The traditional organic philosophy has rejected many of the norms and practices that are a part of conventional agro-food production. However, the ongoing viability of the traditional philosophy as an alternative to the status quo has come into question.

The early twenty-first century sees the OAF sector at a highly paradoxical moment in its history. On one hand, organic agriculture is associated in the minds of consumers with small-scale, locally sustainable agro-food production; while on the other, it is increasingly becoming part of the global agro-food regime and *agribusiness*, which refers to large-scale, capital-intensive, agricultural corporations that incorporate supply, production and processing capacities into their business activities. Today, the business of selling OAF is a global multi-billion dollar industry, which has experienced an annual growth rate of 15-20% over the last ten years (Willer&Yussefi, 2004; OECD, 2003: 17). This economic expansion has far outpaced the annual growth in the conventional agro-food sector, currently sitting at 4-5% (Sligh&Christman, 2003:17). The Food and Agriculture Organization (FAO) estimates that in 2010, the global OAF market will continue to expand, and will be worth between \$64-91 billion (US) (FAO, 2002). In

2002, retail sales of organic food and drink in Canada growing to \$750 million (US) (Haumann, 2004:24). The American market is significantly larger, with retail sales around \$12 billion (US) in 2002 (Haumann, 2004:108).

Numerous factors have contributed to the expanding market shares of OAF. For example, rising fears regarding agro-food safety and security have been major drivers of rapidly increased consumer demand (FAO, 2003; OECD, 2003). Public attention is increasingly being drawn towards the ill effects of conventional farming techniques, including environmental degradation, chemical residues on food, and other causal links with human disease. The questionable safeties of Genetically Modified Organisms (GMOs) in the food system and cases of Bovine Spongiform Encephalopathy (BSE or 'mad cow disease') have also helped the OAF industry grow in North America as well as Europe throughout the 1990s as OAF is considered a 'safer' option by critics of the industrialized agro-food system (Kneen, 1999; Altieri, 2001; Phillips&Wolfe, 2001; Willer&Yussefi, 2004; OECD, 2003).

As the FAO reported in 2003, "...it took 30 years for organic agriculture to occupy 1 percent of agricultural land and food markets...food safety concerns [have] resulted in its recent spectacular and unforeseen increase". Organic agriculture has come a long way from its humble beginnings as a peripheral and localized system of small-scale agro-food production. This rapid expansion has had significant implications for the organization and institutional structure of the OAF sector. The global expansion of the OAF sector is largely due to the corporate involvement in various aspects of the OAF supply chain, to meet rising consumer demands. Resultantly, the way OAF is produced, processed and distributed has dramatically changed.

Transnational corporations (TNCs) are increasingly becoming involved in managing OAF, and in some cases incorporating OAF into their overall business strategies used for conventional agro-food. For example, Hain-Celestial that is partially controlled by H.J. Heinz, has acquisitioned more than 20 smaller organic firms in the US since 1997 (see Appendix 1), and collected over 544 million (USD) in sales in 2004 (Hain-Celestial Group Inc., 2005). Vast distribution channels now exist that include everything from corner stores to transnational retailers such as *Wal-Mart*, which has recently announced that it will begin carrying OAF products to profit from this booming industry (OCA, 2005). *Whole Foods*, the largest natural food retailer in Canada and the US, now has annual gross sales over 4.6 billion (USD), and has been dubbed by some critics as the “Wal-Mart of organic” (FamilyFarmDefenders, 2005). Corporate involvement in the OAF sector has caused concern and protest from practitioners and supporters of the traditional organic philosophy who believe *organic* stands for something quite opposite from corporate models of capitalism. As stated in the 2003 Organization for Economic Cooperation and Development’s (OECD) report on organic agriculture, “...[corporatization]... presents a challenge for some in the organic movement, who are concerned with the social and environmental impacts of business practices and structural characteristics of mainstream agriculture but also want to spread organic farming principles and facilitate greater consumer access to organic food” (OECD, 2003: 11).

Formally localized OAF *supply chains* are increasingly becoming globally connected, to keep up with consumer demand in post-industrial countries that cannot themselves create adequate supply. The concept of an ‘agro-food supply chain’ consists of a number of diverse actors and linked processes of agro-food production, processing and

distribution, and modes of their interaction with one another in social and economic spaces (Raynolds, 2004). The involvement of corporate interests in OAF supply chains has split the OAF sector into two approaches. As Julie Guthman states,

...the organic food sector is increasingly bifurcated into two very different systems of provision: one producing lower cost and/or processed organic food...appealing to meanings of health and safety; the other producing higher value produce in direct markets and appealing to meanings of organicism, political change, and novelty...Practitioners in both systems are able to claim the moral high ground (2001: 10).

The manner and extent to which the sector has been changed as a result of corporate involvement, is a widely debated issue in academic literature on the political economy of OAF. One perspective argues that the processes of industrialization, and the involvement of agribusiness from the conventional agro-food sector, have not led to significant convergence of production processes in the OAF sector (Coombes&Campbell, 1998; Hall&Mogyorody, 2001; Allen&Kovach, 2000; Murdoch&Miele, 1999; Michelsen, 2001b). According to this position, the OAF sector is maintaining a divergent path and so continues to present a challenge to the instrumental norms of the conventional agro-food system and the converging forces of globalization. Organic agriculture and the broader OAF sector are argued to still view productive and socially reproductive tasks as inseparable. Organic agriculture continues to present an alternative to the industrialized agro-food system.

A second position argues, however, the involvement of corporate actors in the OAF sector has led to a convergence in production processes, mainly the commercialization and conventionalization of OAF and the utilization of international divisions of labour (Buck et al., 1997; Pollan, 2001; Vos, 2000; Guthman, 2001, 2004a, 2004b; Raynolds, 2004; DeLind, 2000; Klonsky, 2000). Though it is generally accepted by the first group of scholars, that actual production (organic agriculture) may be experiencing less

industrialization than other segments of the OAF supply chain, major changes such as the consolidation of ownership in the processing and distribution of OAF are occurring as a direct result of increased corporate involvement in the last twenty years in both the US and Canada. Thus, while alternatives to conventional practices remain in certain areas and places, the broader political economic trends of increased corporate activity suggest an important degree of convergence on a specific, neo-liberal production model, which downplays social sustainability as part of the production process. This is due to the institutionalization of neo-liberal principles into the global economy that privilege market rationality and corporate modes of managing the agro-food system.

The paper seeks to demonstrate that adherence to social sustainability in the OAF sector has been seriously challenged as OAF production processes are integrated into the global economy. Using a political economy approach, this paper examines how, as OAF supply chains have become corporatized, there has been a decline in the adherence to the principles of egalitarianism associated with social sustainability.

This paper has three sections and proceeds as follows. The first section presents a traditional definition of organic agriculture and the traditional organic philosophy, and demonstrates how maintaining a commitment to environmental sustainability is, in numerous ways, contingent upon a dedication to certain elements of social sustainability. Section two addresses the implications of the globalization of the conventional agro-food system for the OAF sector's ability to practice the principles of social sustainability. Section three goes on to examine how corporate management of the agro-food system has challenged the viability of social sustainability in OAF supply chains, and has contributed to the emergence of a 'contemporary' organic philosophy which converges on the norms

of conventional agriculture and downplays social sustainability in OAF production processes.

***Organic Agriculture, the Traditional Philosophy and Social Sustainability***

Organic agriculture is most often associated in the public minds, with environmental sustainability due in large part to its contributions to reducing the use of harmful chemicals, and its rejection of GMOs. However, social sustainability is an equally important component of the traditional organic philosophy. This section seeks to demonstrate that the two goals are deeply intertwined (Allen, 1993), and shows how the commitment to environmental sustainability entails a commitment to the tenets of social sustainability. Lampkin (1994) has formulated a definition of organic farming based on the principles associated with the traditional organic philosophy. Organic agriculture, as understood in terms of sustainability in general, is

...an approach to agriculture where the aim is: to create integrated, humane, environmentally and economically sustainable agricultural production systems, which maximize reliance on farm-derived renewable sources and the management of ecological and biological processes and interactions, so as to provide acceptable levels of crop, livestock and human nutrition, protection from pests and diseases, and an appropriate return to the human and other resources employed...(4).

The organic agricultural movement originated in Europe in the immediate post-WW II period (Tate, 1994:11; Raynolds, 2004:735). Early advocates including Lady Eve Balfour (1948), Sir Albert Howard (1952), and J.I. Rodale in the 1950s, were critical of the environmental impacts of industrialized agriculture and espoused the environmental benefits of promoting and maintaining biodiversity through organic techniques (Clunies-Ross, 1990: 202). The original practitioners of organic agriculture also promoted environmental sustainability, as it was thought that the over-usage of chemical fertilizers and monoculture reduced plant and animals' natural resistance to disease and depleted the soil of its nutrients. These ideas laid the foundation for building a coherent concept of

organic culture, and for the emerging organic philosophy that would influence organic agriculture up to the present.

A transnational, yet concentrated social movement emerged from the grassroots in the 1960s in both Canada and the US, focused mostly along the west coast that offered an alternative to large-scale corporate agriculture and questioned the political and economic ties between the state and agribusiness' involvement in agricultural sectors (Berry, 1976; Belasco, 1989). The traditional organic philosophy developed to include substantive values of biodiversity, a reduction in fossil fuel intensive technologies and the localization of market relations in the agro-food system; essentially environmental sustainability. Viewing the agro-food system in a holistic manner was key to this burgeoning ideology.

#### *Environmental Sustainability*

Environmental sustainability is the only tenet that has been widely instituted into public policy and regulation in terms of the formalized banning of the use of GMOs and synthetic inputs (CAN/CGSB-32.310-99; US/OGPF90, Sec. 2104 (7 USC. 6503); IFOAM, 2005). There are three general components that make up environmental sustainability; localized agro-food chains, small-scale establishments and poly-culture according to the traditional organic philosophy. It is important to note then, that remaining sensitive to the needs of the environment must include all stages of the production process. *Distancing* between the points of production and the points of consumption involve an increase in transportation costs and packaging. Distancing essentially refers to the increase in energy consumption that industrialized agro-food production demands, as the spaces between nodes in supply chains geographically



expands (Kneen, 1989: 42). Both are fossil fuel intensive processes, and so non-local supply chains are discouraged by the traditional organic philosophy. Larger geographic distances also increase the instances of spoilage and waste of product. It is estimated that twenty-five percent of food produced in the global food system rots in transit (Imhoff, 1996:429).

In addition to the dissuasion of agro-food distancing, the reliance on fossil fuels on the farm is also discouraged, as CO<sub>2</sub> emissions are major causes of environmental pollution. Manual labour and maintaining small-scale farming operations are essential to reducing dependency on fossil fuels and so the local and small-scale structure of organic agriculture is fundamental to ensuring the faintest 'ecological footprint' as possible. In contrast, larger-scale agro-food production encourages monoculture and produces too much waste to be recycled back into the production process. Monoculture is counteractive to biodiversity and the mechanization necessary to carry out monoculture encourages dependence upon fossil fuels. Both are highly insensitive to maintaining environmental balance (Lang&Heasman, 2005). A study by McNeely&Scherr (2001) shows that conventional-chemical agriculture is the number one threat to biodiversity on the planet.

Another more recent addition to the traditional organic philosophy's commitment to environmental sensitivity and biodiversity is the banned usage of GMOs. GMOs, and other forms of biotechnology are not only viewed as potentially dangerous to human and environmental health, but also as tools of agribusiness, used to cement the dependency of growers and farmers on agribusiness technologies (such as in the case of Monsanto's 'Terminator' or Suicide Gene) (OCA, 2006). The traditional organic philosophy rejects

the notion that knowledge of the biology of plants and animals can be privatized and sold for profit to farmers. Free flows of knowledge regarding agriculture are key to ensuring cooperation between growers and farmers in preserving the natural environment, thus connecting environmental and social elements of the traditional organic philosophy. Further, the emphasis on biodiversity in the traditional organic philosophy encourages the cultivation of what is native to one's bioregion in a poly-cultural setting, and the preservation of 'heritage' strains of plants and animals.<sup>1</sup>

Beyond 'merely' banning chemicals and GMOs, the broader ethos of the organic philosophy emphasizes living in harmony with nature, recycling waste materials and allowing for the democratic distribution of knowledge pertaining to agro-food growth and production. Thus, these elements of environmental sustainability are fundamental to the adherence to the traditional organic philosophy; however, keeping these substantive environmental values in tact in the production process is largely dependent upon a commitment to the practices of social sustainability in OAF supply chains.

### *Social Sustainability*

Social sustainability, though the more woolly component of the traditional organic philosophy, is comprised of three main elements: commitment to fair and just labour practices, gender equality, (both principles of a general egalitarianism), and the preservation of rural communities and culture. Considering environmental sustainability has been incorporated into contemporary interpretations of the organic philosophy to some degree, it is important to explain social sustainability at some length because it has,

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<sup>1</sup> Some (but not all) organic growers are still committed to preserving biodiversity through a heterogeneous population of flora and fauna. An estimated 80-90% of vegetable and fruit varieties that were prevalent in the 19<sup>th</sup> century were lost by the end of the 20<sup>th</sup> century (Henry, 2001). With industrialized agriculture, many of the most hardy, robust species of flora and fauna have been singled out to impose uniformity and standardized inputs for stages further along the agro-food supply chain.

by in large, become the less visible aspect of the traditional organic philosophy in current interpretations. Social sustainability is thus, the major point of departure between those who adhere to the traditional philosophy and those who adhere to more contemporary, market-friendly interpretations.

Fair and just labour practices are a major characteristic of social sustainability. They include valuing the work that is put into the production of OAF, valuing individuals' knowledge and skills of organic techniques and the dedication producers have to the land and the health of the soil. Since the traditional organic philosophy rejects the use of chemical inputs and monoculture, manual labour is in many cases necessary to complete farm tasks (e.g., weeding, harvesting) and requires some level of training and awareness of organic techniques. Thus, training and commitment are essential to maintaining the integrity of the organic philosophy. As Atkins&Bowler state, "organic farming...supports more jobs per hectare of farmland contributing to social stability of farm populations and rural society" (2001: 69). The reliance on manual labour has been the primary justification for the premium price attached to OAF products that were traditionally sold at the farm gate, farmers' markets or health food stores (Ikerd, 1999).

The traditional organic philosophy's commitment to the egalitarian principles of gender equality also emerged as a response to the practices reproduced in conventional, industrialized agriculture. As with other elements of social sustainability, gender equality became a fundamental component of the organic philosophy in conjunction with other social movements of the 1960s, such as the women's movement. The traditional organic philosophy's emphasis on agro-food production for localized consumption is rooted in the customary practice of small-scale backyard gardens, which were often tended by

women (Jackson, 1998). Further, the traditional organic philosophy values the diversity in social relations that characterize less institutionalized forms of agro-food production, which encourages a proliferation of egalitarian principles into the practices, associated with organic agriculture through more horizontal means of decision-making. The disaggregated decision-making associated with organic agriculture has allowed for women's socially reproductive functions to be recognized as valuable contributions on the family farm and in agriculture in general.

The most influential characteristics of traditionally managed OAF supply chains that make principles of social sustainability *sustainable* are small-scale and localized modes of production. As mentioned above, these forms are also fundamental to environmental sustainability. Localization contributes to consensus-based decision-making in agro-food chains by keeping land ownership disaggregated and locally based (MacRae&Martin, 2005). This contributes to the ability for rural communities to economically sustain themselves and to control various aspects of the production process. Therefore, valuing the process, which an organic good undergoes, helps assure the inclusion of principles of social sustainability in OAF production. As Mutersbaugh claims, the local, grassroots nature of organic agriculture, is what has also made it *sustainable* agriculture (2002: 1167).

The traditional organic philosophy's commitment to preserving rural communities and culture largely rejects the organizational structures that dominate conventional agriculture, mainly the corporate consolidation of agriculture, which effectively displaced farming populations. The National Farmer's Union (NFU) has been very critical of corporate agriculture, claiming it is responsible for "...depopulat[ing] rural areas and

creat[ing] urban slums worldwide” (NFU, 2005). The traditional organic definition encourages the local sourcing of foods, eating in-season, minimal processing and a decentralization of marketing (Lyons, 2004; Clunies-Ross, 1990: 202). Local Consumer-Supported Agricultural (CSA) networks nurtured throughout the organic agricultural sector are used to support farmers who adhere to the traditional organic philosophy that promotes the ‘grow local, buy local’ mantra.<sup>2</sup> These networks base trade on direct distribution schemes and local food links, and as Powell notes, “...the idea behind all of them is to provide growers with a guaranteed market for their produce, and to give consumers access to a food at a reasonable price. Usually growers and consumers... live within a short distance of each other, and there may be social links as well” (1995:122). Limited links in the OAF supply chain are important to maintaining this connection between the land, the producer and the consumer.

The traditional organic philosophy has been based on two mutually dependent types of *sustainability*s: environmentally sustainability, which is contingent upon a commitment to social sustainability. This includes subscribing to principles of egalitarianism and supporting localized agro-food chains. The local orientation of supply chains is imperative to maintaining environmental sustainability. The elements of environmental sustainability are fundamental to the adherence to the traditional organic philosophy, but keeping these substantive values in tact in the production process entails a commitment to the practices of social sustainability in OAF supply chains. The next section explores how the processes of globalization and corporate interests has effectively separated product from process and as a result, has compromised the viability of social sustainability in globalized OAF supply chains.

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<sup>2</sup> Growers that practice other types of sustainable farming, such as biodynamics, are also included in CSAs.

***The Globalization of the Agro-food System:  
Implications for the OAF Sector and Social Sustainability***

The globalization of the conventional agro-food system has had a number of implications for the OAF sector, and specifically for the ability of practitioners of traditional organic philosophy to adhere to principles of social sustainability. The focus of this section is to establish how Green Revolution technologies and the transnational integration of production networks organized by related TNCs help to remove process as an important determinant of the value of agro-food. The next section then explores how with the OAF sector's incorporation into the global economy, there has been a degree of convergence towards the norms and principles governing the global agro-food system.

*Green Revolution Technologies*

Organic techniques of agro-food production were the norm until the *Green Revolution* became as the status quo in the post WW II era (Mitchell, 1975; McMichael, 2004). This paradigm shift is characterized by a move to increase farm yields through mechanization, chemicalization (e.g., pesticides, herbicides), and irrigation techniques in agricultural production. Practitioners of chemical agriculture have been engaged in a constant, dependant relationship with distributors of Green Revolution technologies in order to economically survive ever since chemical agriculture became the conventional form (Mitchell, 1975; Kneen, 1989). This change in the way agro-food was produced in Canada and the US was accompanied by what some scholars have labelled *cheap food policies*. These policies direct institutionalized agro-food sectors to produce as much product as possible at the cheapest price to the consumers through externalizing the costs of negative outcomes onto society and the state, e.g., the costs of environmental degradation and unemployment (Giangrande, 1985; Clunies-Ross, 1990).

The spread of Green Revolution technologies associated with the agro-food production has helped to rapidly increase the production and movement of agro-food around the world. Mechanization, synthetic inputs and GMOs have been promoted as miracle solutions to the challenge of feeding mass populations. These technologies have been harnessed by large corporations, which have profited from the sales of Green Revolution technologies to agro-food producers around the world, such as Monsanto, Cargill and ConAgra. As Shiva notes, this proliferation of agribusiness in agriculture around the world has been effective at "...replacing diversity-based agricultural and forest systems with monocultures of the 'green revolution'..." (Shiva, 1994:152).

The global spread of these technologies has effectively displaced agricultural producers from rural landscapes and bankrupted many small-scale farmers who in hard economic times could not afford off-farm inputs and other costs associated with commercialized agriculture (Steffen, 1972: 5; McMichael, 2004; NFU, 2005). This has led to large-scale consolidation of agricultural sectors in many areas, the US in particular, turning *agriculture* into *agribusiness* (Heffernan, 1999). Agro-food production largely became a supplier of ingredients and raw commodities for corporations involved in the manufacturing food products. As agriculture industrialized, farmers were transformed into what Egri (1994) labels as "...commodity producers operating within a competitive market system of private property" (129) producing inputs for the agro-food system.

The industrialization of the agro-food system through the utilization of Green Revolution technologies has effectively moved the value added to the good further away from the point of production as more corporations become involved in agro-food supply

chains, and the number of manufactured foods needing processing rise—a process referred to as *appropriationism* by Goodman et al. (1987). Through appropriationism actors involved further along the supply chain reap many of the profits from food sales, while producers receive prices based on what international commodity market determine. Thus, the conventional agro-food system is built on the goals of producing commodities as quickly and cheaply as possible, while increasingly modifying production processes to meet consumer preferences. The declining prices passed on to producers have been an effective mechanism for depopulating rural areas and have aided in the consolidation of ownership into the hands of TNCs and agribusiness.

#### *Transnationalization of Agro-food Supply Chains*

The transnationalization of agro-food supply chains has benefited from declining labour and environmental regulations of states inspired by neo-liberal market principles, which currently guide regulations and trade in the global economy via the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO). The principles of neo-liberalism are based on, what McBride (2001) posits as the “...prioritization of markets over politics, ... market mechanisms and individual rather than collective approaches to solving or handling economic and social problems” (13-14).

The establishment of transnational supply chains was possible through a, “...combination of liquid international capital markets and few restrictions on the movement of goods and skilled labour [which] allowed for the growth of foreign direct investment in agro-food...sectors” (Coleman et al., 2004:30). Though transnational supply chains existed before the processes of globalization were fully underway (such as those supplying sugar and bananas; see Friedland, 1994), the institutionalization of neo-



liberal principles in the global trading system and the involvement of corporations in the agro-food system accelerates the pace at which agro-foods are produced and the speed in which they are transported around the world.

The freer flow of capital that resulted from declining state controls over capital inflows and outflows, led to a number of takeovers and mergers in the 1980s that established the “conglomerate integration” that now is characteristic of the current stage of organization of the agro-food sector (Heffernan, 1999). Not only did firms begin to consolidate the agro-food sector, they also began to develop strategic alliances with other firms creating organized supply chains controlled by a small number of firms. Cargill and Monsanto for example, have formed a joint venture to establish a production chain network of food production. Cargill is one of the largest seed firms in the world, and formed an alliance with Monsanto to increase its access to information regarding biotechnology. Cargill has a corporate goal to double its size every five to seven years, which implies that it will either absorb smaller competitors, or squeeze them out of the market (Heffernan, 1999:6). ConAgra is another large TNC with significant investments in agro-food. It is one of the largest flour millers in the US, and has long invested in the food system from ‘seed to shelf’. Food processing has remained an important part of ConAgra’s business ventures, and remains only second to Phillip Morris in the US for food processing (Heffernan, 1999:8).

Cohn (2003) attributes the growing influence of TNCs<sup>3</sup> over decision-making in the agro-food system in the 1980s to the funds available to them for research and development of technology, and the building of brand-name loyalty and a solid consumer base (333). TNCs have increased their control over the decisions made regarding agro-

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<sup>3</sup> Here, Cohn refers to TNCs as Multi-National Corporations (MNCs).

food because economic power has been concentrated, giving well-placed market actors the ability to squeeze out smaller competition and to increase their market shares by specializing in various stages of the agro-food chain. This transnationalization of production processes has allowed TNCs to geographically separate supply chain links to take advantage of lower labour and property costs wherever they may be found.

The largest of the TNCs, which partook in *clustering* of supply chains during the 1980s were Monsanto, Cargill (also the manufacturer of pesticides, growth hormones [rBGH] and GM crops), ConAgra, Tyson and ADM.<sup>4</sup> These TNCs primarily concentrated in primary processing,<sup>5</sup> though they extended their control to backward linkages of farm inputs, such as seeds in the case of Monsanto. These concentrated corporate relationships have been well defined by Heffernan (1999) as “network clusters” (3), which refers to the oligopolistic concentration of ownership amongst few corporations and their cooperation with each other to gain market shares. The network clustering strategy used by TNCs has made it possible for the market share of the top twenty US food manufacturers, including those listed above, to double from 1967 to the early 2000s. The consolidation of the agro-food sector is further evident from the fact that over 80% of all value-added food products are now controlled by a mere 100 firms worldwide (Lang, 2003: 18).

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<sup>4</sup> According to Heffernan (1999), the majority of the meat, and poultry sectors have been consolidated into the hands of ConAgra, Cargill and Tyson (27). ADM has cornered the majority of the grain processing market.

<sup>5</sup> Agro-food processing is divided into primary and secondary processing, or what Coleman et al., (2004) refers to as first stage and second stage. Primary processing entails processes such as milling, crushing (for grains and oilseeds). *Unilever* was one of the leaders in developing this technology, specifically the global sourcing of oilseeds for generic inputs. Livestock slaughtering is also considered primary processing. This stage usually takes place closer to the point of production, and has been far less ‘globalized’ than secondary processing. Secondary processing involves the transformation of raw agro-food products into manufactured foods that are sellable on retail shelves.

By the 1990s, agribusiness began to take over entire supply chains, covering every aspect of agro-food production, and to streamline production processes through strategic alliances, sub-contracting and backward and forward linkages involving everything from seed distribution to food retailing (Atkins&Bowler, 2001:43; Heffernan, 1999; Heffernan& Hendrickson, 2002). Large-scale agribusiness now provides almost 60% of all food sales in North America and Europe (Ruiz-Merrero, 2004). Unlike the capitalist ideal of free market competition between firms, clustering, or alliance formation between TNCs has characterized the recent development of the agro-food sector and led to an oligopolistic system in North America that has been labelled the ‘agro-industrial complex’ by a number of scholars critical of ownership consolidation (Atkins and Bowler, 2001:42; Pollan, 2001; Heffernan, 1999). The next section examines how these institutional changes affect the viability of the traditional organic philosophy as the OAF sector continues to be integrated into the global economy.

***The Corporatization of the Organic Supply Chains:  
The ‘contemporary’ Organic Philosophy***

In some ways, the challenges for the OAF sector to maintain a commitment to social sustainability has been a result of its growing economic success. As Vos notes, “[the] ideological lineaments of organic farming...represent an historically persistent cultural paradigm...yet ...this paradigm may be increasingly called into question by the burgeoning economic successes that organic farming has recently been enjoying” (2000:252). Its insertion in the global system imposes significant contradictions into the institutional formation of the OAF sector. The institutionalization of neo-liberal market principles has caused a hollowing out of labour and environmental standards in many countries by encouraging corporations to seek out low regulations to reduce overhead

costs (McMichael, 2004). The focus on market competition and global integration encourages market actors to reduce overhead costs (through monocropping), and increase the scale of production to meet economies of scale. The encouragement of integration in the global trading system dissuades the localization of agro-food chains, which has been essential for the maintenance of social sustainability.

Corporatization in the OAF sector can be characterized as three types of activities, which threaten social sustainability in organic agriculture; consolidation of ownership, free market competition and basing production on consumer signals. This section discusses the declining ability for practitioners of traditional organic agriculture to adhere to the principles of social sustainability, as globalized corporate activities and interests are becoming more prevalent in OAF supply chains. It will be further shown that increased corporate involvement has helped create a distinct contemporary organic philosophy, which downplays social sustainability at different levels of the supply chain and focuses instead on the technical definition of the end product.

Traditional organic agriculture has avoided the relationship of dependence with agribusiness, as it has not traditionally been reliant upon purchasing the off-farm inputs introduced by the Green Revolution. However, the use of Green Revolution technologies in the OAF sector have been observed in California by Buck et al. (1997), Clunies-Ross (2001) and recently Shreck et al. (2005), where organic businesses are increasingly utilizing monoculture to reduce costs and maximize profits from the production and sales of OAF. As Pollan demonstrates, five giant farms have now cornered half of the 400 million (USD) organics sector in California (Pollan, 2001: web source). One of which is *Greenways Organic*, a 2 000 acre OAF produce operation that functions along side a

conventionally run farm. Like Greenways Organic, many organic farms are now part of transnational supply chains in the process of further expansion. As Pollan further charges, “Cascadian Farms...the corporation [now owned by Small Planet Foods, which was acquired by General Mills in 1997- see Appendix 1] can’t even afford to use produce from Cascadian Farm *the farm*: it’s too small...the company buys...from as far away as Chile” (Pollan, 2001, emphasis added).

The increasing scale of production in organic agriculture in California reduces the economic viability of smaller organic producers to treat agricultural labour fairly (Blowfield, 2001; Shreck et al, 2005). The traditional organic philosophy ultimately rejects the industrializing processes associated with conventional agriculture. But some practitioners in organic agriculture have benefited from growing consumer demand and the lack of emphasis placed on social sustainability in the contemporary, market-oriented interpretation of the organic philosophy. Buck et al. labels the increased reliance on Green Revolution technologies in the OAF production process as ‘conventionalization’, which refers to the industrialization of organic production. The incorporation of Green Revolution technologies into the OAF sector effectively threatens the ability for practitioners to maintain a commitment to social sustainability by undermining the value that human involvement in the production process brings to the integrity of what makes a good organic.

While the traditional organic philosophy rejects the usage of GMOs, and chemical inputs in OAF products, the integration of organic agriculture into a system that is based upon monoculture, a reliance on mechanization, and fossil fuels, is somewhat problematic for adhering to the principles of environmental sustainability and related

principles of social sustainability. Using some of the technologies associated with the Green Revolution effectively lessens the importance of manual labour as part of the traditional organic philosophy because it is displaced by monoculture and mechanization. Green Revolution technologies, because of their goal of maximizing outputs through monoculture, and fossil fuel dependence, challenge the principles of social and environmental sustainability by devaluing the importance that manual labour in the production process and the disaggregated knowledge used to nurture the health of the soil. This type of organization disadvantages fair and just labour practices by forcing all producers to reduce costs in order to be competitive, what essentially neo-liberalism promotes. The necessity to move to larger scales of production, and monoculture fundamentally challenges the principles of the traditional organic philosophy by removing the importance of manual labour to the value of the end product.

Beyond the point of production, the corporate involvement in other links in the OAF supply chains exploded in the 1990s as growth in the conventional agro-food sector declined (Atkins&Bowler, 2001). There has been a significant amount of investment in the OAF sector, including areas of processing and distribution, by Coca Cola, Dole, General Mills, Kraft and Novartis and most notably H.J. Heinz's investment in Hain-Celestial (Howard, 2005, Pollan, 2001). The corporate ownership of a number of aspects of the OAF sector has produced a vertically integrated system that is at odds with the traditional, small-scale, disaggregated approach to organic production. The motivation to profit from organic agriculture, in a system based on neo-liberal principles which denies process as an important component to the integrity of the end product, has thus moved

some OAF supply chains further away from the goals of social sustainability and closer to the principles and norms of the conventional agro-food system.

The move away from localized agro-food chains undermines principles of social sustainability because transnational agro-food supply chains have decision-making structures that are far removed from the point of production, reducing the ability for producers to participate in decision-making that directly affects their livelihoods. Further, the transnationalization of production processes is effective at moving the value further away from the producer by increasing the links in supply chains; thus more 'middlemen' must gain profit from the sale of the good. Social sustainability is incompatible with the transnationalization of agro-food supply chains because local producers are forced to compete with foreign ones who may be able to reduce labour costs by increasing the scale of production operations through mechanization and monoculture; the favoured modes of agro-food production in the global economy. For example, currently 85-90% of all OAF products sold in Canada are imported from the US (Millstone&Lange, 2003: 65; Cuddeford, 2004).

Corporate consolidation has seriously threatened the viability of social sustainability as part of the traditional organic philosophy for as Marsden et al. (1996) note "...capital accumulation in the food industry leads to distinctive industrial/agricultural spaces in the rural landscape integrated into globally networked urban-centred food complexes" (362), which currently, are based on the adherence to neo-liberal economic principles. Conventional corporations seeking profits and greater market shares impose an economic structure upon the production of agro-food. The consolidation of ownership over the agro-food sector allows for already large and powerful corporations to extend their

influence and interests by acquisitioning smaller firms. Instead of the disbursement of value added to disaggregated groups of market actors, profits are concentrated in the hands of few, already financially powerful corporations, further giving them more influence over how production is organized and ‘who gets what’ throughout the supply chain.

The goals of corporations in the agro-food sector are primarily profit. In order to attain as much profit as possible, it is essential to gain as large a share of the market as possible by supplying what consumers demand. This is possible through minimizing overhead costs, and adding value to the good. Though the market for OAF products is still relatively small compared to that of conventional agro-food (1-3% of the total global sales, see Millstone&Lang, 2003:88), the OAF sector is a niche market that garners huge profits. As the *Main Conclusions and Recommendations’ document from the ‘OECD Workshop on Organic Agriculture’* in 2002 states, instead of a growing social movement that has wider public appeal, “in most OECD countries, ...market forces largely drive the development of the organic sector”. This has signalled a radical departure from the traditional motivations associated with organic agriculture and a new organic philosophy has emerged to accommodate these shifts.

The following year, the OECD published a study entitled, *Organic Agriculture: Sustainability, Markets and Policies* (2003), in which one contributor, Darryl Jones, characterizes sustainability as embodying economic viability, environmental soundness and social *acceptability* (20). Jones defines social acceptability as “...meeting wider values of society, such as supporting rural communities and addressing cultural/ethical issues such as animal welfare concerns” (Ibid). This definition as put forth by a market



oriented organization such as the OECD, makes little reference to the tenets of social sustainability, mainly the labour issues that are part of the principles of egalitarianism, which have traditionally been part of the organic philosophy. As Cowley explains, “[t]he new organic is all about bigger farms, heartier crops, better distribution and slicker packaging and promotion” (2002:50), and based less so on the substantive values that comprise the traditional organic philosophy.

Increasing demand for low cost OAF and the purchasing of OAF in large-scale supermarkets/mega stores such as Wal-Mart, encourages conventional forms of production, which stress standardization, efficiency and price competitiveness (Raynolds, 2004: 737). In 1991, 7% of all organic products were sold in conventional supermarkets, while 68% were sold in health food/ natural products stores and the remainder sold through direct consumer methods (e.g., farmer’s markets, home delivery). As a result of the OAF sector becoming more corporatized, in 2000, 49% of all organic products were sold in conventional supermarkets and 48% was sold in natural food/ health food stores (Dimitri&Greene, 2002: 2) and only 3% through direct consumer methods. This shows a noticeable decline in the involvement of direct consumer methods, which have traditionally been the channel practitioners of the traditional organic philosophy prefer to use. Further, it also shows the increasing volume of OAF products being sold through conventional food retailers that demand competitive pricing from their suppliers.

The premium price, attached to OAF products under the traditional organic philosophy was originally justified in order to support social (and environmental) sustainability practiced along OAF supply chains by, in effect, internalizing the costs of production. Consumers, who support traditional organic agriculture, are prepared to pay

a higher price for the internalized costs of social (and environmental) sustainability (Lyons, 2004; Clunies-Ross, 1990: 202). Considering social sustainability in organic agriculture is fundamentally based on local, small-scale production, the pressure to economize scales of production (which includes downward pressure on labour costs, materials and centralization of production), while maximizing profit, has fundamentally challenged the ability for organic agriculture to put its traditional values into practice when competitors are under no formal obligation to internalize the social and environmental costs in the current global trading system.

The orientation towards meeting consumer demands for high quality, yet low-priced OAF goods in the mainstream agro-food market, has helped to orient OAF supply chains from the producer, towards the consumer. In efforts to meet rising consumer demand for a growing variety of organic products, corporate interests have invested heavily in marketing and product development in order to capture consumer dollars. But as Gene Logsdon, an American organic farmer states, "...mass marketing is antithetical to the definition of organic" (Logsdon, 1993). This is because marketing on a mass scale is only usually possible with large-scale processors and distributors, which only do so to make higher profits via premium prices.

The introduction of highly processed OAF products, manufactured by corporate run OAF supply chains, has signalled the shift away from the traditional organic philosophy that encouraged the consumption of whole foods circulated through local supply chains, which support social sustainability. Purists believe that minimal processing should only be allowed in order for an organic food product to remain a certified organic good. Grinding, canning and drying are the only acceptable means to modify an OAF product.

However, the contemporary interpretation of the organic philosophy, embraces organics as ingredients for more processed goods, and allows oil expeller processes, enzyme conversion of starches and the reduction of organic foods into generic ingredients to be a component of a processed good, such as sugars, proteins and starches (Dimitri& Richman, 2000:8). For supporters of the holistic organic philosophy, it is incomplete to label a food product 'organic' merely based on its ingredients. However, now consumer tastes largely drive the expansion of the OAF sector towards market orientation.

The contemporary organic philosophy is therefore largely centred on consumption and as such undermines many of the principles of social sustainability in OAF production processes. This has mostly occurred because in order for OAF to become part of the globalized, corporatized system of trade in goods, it must adhere to the principles, norms and values embodied in the system which privileges more industrialized and commercialized enterprises. As Clunies-Ross aptly posits, "...paradoxically, just as consumers are beginning to make a negative link between food quality and the industrialization of the food process, attempts are being made to draw producers of organic food into the commercial food sector in an effort to meet consumer demand" (1990:212). The traditional organic philosophy's commitment to social sustainability is made more difficult to practice as meeting consumer demand as quickly and economically efficiently as possible becomes the priority of the corporatized OAF sector.

### ***Conclusion***

Some practitioners of the traditional organic philosophy predicted that organic agriculture would hold 40% of the total agro-food market by 1975 (Steffen, 1972:60). The ideal vision of the future of organic agriculture was that it would be a "...post-industrial

ecologically sustainable system of family farming-farmers [who] are again agrarian crafts persons” (Egri, 1994:131). Clearly the reality of the global expansion of the OAF sector has not met these original goals.

The social ideals associated with the traditional organic philosophy are now further away from becoming the principles guiding the majority of the practices in the OAF sector, as a result of globalization and corporatization. Instead of the principles of traditional organic agriculture overtaking and replacing the environmentally and socially damaging practices associated with conventional, industrialized agriculture, organic agriculture has become absorbed into the global economy through the involvement of corporate interests and rising consumer demand. This absorption undermines the applicability of the traditional organic philosophy, especially its dedication to the principles of egalitarianism embodied in social sustainability.

The recent attempts to link the organic and the fair trade movements to combat the negatives associated with globalization (see Reynolds, 2000, Blowfield, 2001) further demonstrates how social sustainability has proven difficult to achieve in the organic corporatized agro-food sector. The current global system of trade based on the institutionalization of neo-liberal principles places emphasis on the end product over the process, and rewards market actors who externalize social goods from the production process. As a result, the traditional organic philosophy and its principles of social sustainability have become destabilized due to the processes of globalization and corporatization.

**Appendix 1:**

**Time Line of Transnational Involvement in the Organic/'Natural' Food Sector  
1984-2005**

<b>Year</b>	<b>Type of Involvement</b>	<b>Details</b>
<b>2005</b>	Acquisitions-5 Brand Intro-4 Strategic Alliances-1	-Sainsbury (UK) launches 'So Organic' in-house brand -Charterhouse Inc. acquires Rudi's Organic Bakery, and significant equity in The Vermont Bread Co. -ConAgra introduced Hunt's Organic, Orville Redenbacher's Organic -UniLever introduced Ragu Organic -Cadbury-Schweppes acquired Green and Black's (100% equity) -United Natural Foods- full equity of Roots& Fruits -Monsanto acquired Seminis (major breeder of conventional and organic seeds) -Hain Celestial acquires Spectrum Organic Products, strategic alliance with Yeo Hiap Seng (Asia)
<b>2004</b>	Acquisitions-8	-Kraft acquired Balance Bars -Hain-Celestial acquired JASON products, Harry's Snacks (1) and Kineret (1) -Heinz acquired Linda McCartney Vegetarian Foods (2) -Cadbury-Schweppes acquired Nantucket Nectar -Dean Foods- full acquisition of Horizon Dairy -Whole Foods Markets acquired Fresh & Wild (UK) (supermarket) -SunOpta acquired full equity of Organic Ingredients Inc. (dist.)
<b>2003</b>	Acquisitions-9 Brand Intro-3 Strategic Alliances-1	-Hain-Celestial acquired Acirca and Walnut Acres; forges a strategic alliance with Cargill -Kraft acquired Back to Nature -Groupe Danone acquired Brown Cow -Pepsi introduced Tostitos Organic -Campbell's introduced Campbell's Organic -UniLever introduced Ben and Jerry's Organic -SunOpta acquired Kettle Valley and ProOrganics (dist.) -Nestle acquired Poland Spring Water (3) -Horizon acquired Rachel's Organic (UK) (4) -Clement Pappas acquired Crofter's Organic Juices
<b>2002</b>	Acquisitions-9 Brand Intro-2 Partial Equity-1 Strategic Alliances-1	-Solera gained significant equity in Annie's Homegrown -American Capital acquired Coleman Natural Products -Hain-Celestial acquired Imagine Foods, Rice Dream and Soy-Dream -HJ Heinz introduced Heinz Organic -Booth Creek acquired Petaluma Poultry -Dean Foods acquired White Wave/Silk -Cadbury-Schweppes acquired Hanson Natural -SunOpta acquired Wild West and Simply Organic -Cargill forges a strategic alliance with French Meadow -Whole Foods Market Introduced '365 Everyday Organic Value' line
<b>2001</b>	Acquisitions-7 Brand Intro-3 Partial Equity-1	-Hain-Celestial acquired Friti De Bosco, Millina's Finest, Mountain Sun, Yves Veggie Cuisine (Can), Shari Ann's and Lima (Bel) -Tyson introduces Nature's Farms brand name -Coca Cola acquired Odwalla Organics -Groupe Danone acquired partial equity (40%) in Stoney Field Farms -Dole introduces Dole Organic -Loblaws introduces President's Choice Organics
<b>2000</b>	Acquisitions-12	-Kraft acquired Boca Burger -Hain-Celestial acquired Celestial Seasonings -ConAgra acquired Fakin' Bakin, Light Life, Foney Baloney, Gimme Lean, Smart Dogs, Smart Menu Strips and International Home Foods -Kellogg acquired Kashi -Whole Foods Market acquired Food 4 Thought Natural Food Market and Deli -UniLever acquired Best Foods and Ben&Jerry's

<b>1999</b>	Acquisitions-12 Brand Intro-1	<b>HJ HEINZ invests \$100 million in Hain Celestial (20%)</b> -Dean Foods acquired Alta Dena and Organic Cow of Vermont -Hain-Celestial acquired BreadStop, Casbah, Earth's Best, Health Valley and West Soy -General Mills acquired Cascadian Farms, and Muir Glen, introduces Sunrise Organic -Kellogg acquired Morning Star Farms and Worthington Foods -Tanimura and Antle acquire Earth Bound Farms
<b>1998</b>	Acquisitions-5	-Hain-Celestial acquired Terra Chips, Deboles, Garden of Eatin and Arrowhead Mills -Heinz acquired Nile Spice
<b>1997</b>	Acquisitions-5	-Hain-Celestial acquired Bearitos, Little Bear and Westbrae -M&M Mars acquired Seeds of Change -General Mills acquired Small Planet Foods
<b>1996</b>	Acquisition-1	-Wild Oats acquired Capers Community Markets (BC)
<b>1995</b>	Brand Intro-1	-General Mills introduces Gold Medal Organic brand
<b>1994</b>	Acquisition-1	-Smuckers acquired After the Fall
<b>1989</b>	Acquisition-1	-Smuckers acquired Santa Cruz Organic
<b>1987</b>	Acquisition-1	-Nestle acquired Arrowhead Water
<b>1984</b>	Acquisition-1	-Smuckers acquired RW Knuden
<b>1980</b>	Merger	-Safer Way Natural Foods & Clarksville Natural Grocer merge to form Whole Foods Market in Austin, Texas

1. Listed in Brand names at Hain Celestial Website-date of acquisition unknown

2. Listed on HJ Heinz website, date of acquisition unknown

3. See Glover, 2003.

4. As listed in Sligh and Christman, 2003.

Hearty & Natural was acquisitioned by Stake Technologies (SunOpta) in 2002.

**Sources:** Chart compiled from information in Howard, "Organic Industry Structure, June 2005"; Sligh and Christman, 2003; Glover 2005; Draffan, 2004; Organic Monitor website, WholeFoods website, SunOpta Annual Report, 2003, OCA, 2006.

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