

***Conversion to Organic Farming and Social Justice:
A Socio-Ecological Approach***

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Conversion to organic farming is one solution to the costs which globalization has imposed on the human and physical environment. In these systems, agro-ecological, socio-cultural, economic and institutional factors are integrated, affecting the daily life of the organic producers and their social network. To understand this reality this study used a systemic and holistic socio-ecological approach as well as a network framework, because it presumes that farmers, researchers, certifying bodies, firms, government authorities and non-government organizations (NGOs) are all involved in the complex web of material and non-material relationships, that affect changes and decisions. This analysis seeks to understand problems, issues, trade-offs, objectives and perceived needs for making appropriate decisions, which could connect sustainability to human rights, equity, responsibility and social justice. Preliminary results based on secondary data and on the life story interview with a sub-sample of producers showed that the conversion process to organic farming depends not only on economic factors, but also on socio-cultural and institutional (both public and private) parameters. The implementation of organic farming has challenges and it is associated with a change of values, based on a philosophy and the life style of the actors involved in the organic system, with all their complexities and interest. The model of development imperative in Canadian economy isn't fair in terms of social justice and effective sustainability, because it is governed by neo-liberal economic forces that sacrifice the social dimension and don't humanize the dynamics of the complex system of interest of the organic production.

Introduction

Over the past decades the conversion to organic farming has grown rapidly through the world and is expected to continue to expand at over 20% per year. The proliferation of certified organic products and their increasing availability in mainstream supermarkets have made organics the fastest growing segments of the food industry.

According to The International Federation of Organic Agricultural Movements (IFOAM), Youssefi (2003), the organic system is practiced in more than one hundred countries around of the world, being observed the rapid expansion over all in Europe (with Italy having the largest area), Australia United States (nearly 0.9 million ha), South America (mainly in Argentina) and Japan. Currently in the world, the global area of land under certified organic agriculture was about 23 million of hectares, in approximately 400,000 properties, which represents little less than 1% of agriculture lands of the world.

As shown in Table 1, in terms of global organic sales, the world market for certified organic foods is estimated to be worth US\$23-25 billion. United States has the largest market followed by Germany, United Kingdom, Italy, France, and Canada (RAYNOLDS, 2004).

Table 1 – Major International Organic Markets – 2003

Country	Estimated Retail Sales (US\$ 1,000,000)		Annual Growth Rate of Retails Sales (%)	
United States	11,000	13,000	15	20
Germany	2,800	3,100	5	10
United Kingdom	1,550	1,750	10	15
Italy	1,250	1,400	5	15
France	1,200	1,300	5	10
Canada	850	1,000	10	20
Switzerland	725	775	5	15
Netherlands	425	475	5	10
Japan	350	450		
World Total	23,000	25,000	10	20

Source: ITC (2003), apud Reynolds (2004)

Organic demand, which is concentrated in United State and Europe, is increased due to the financial incentive to the producers, the efficiency of the information to the producers and consumers, the consumption and the availability of organics products, the legal marketing and protection, and the implementation of a plan of development for organic farming (DAROLT, 2002). Another factor for the success in development of the organic systems is the relatively high consumer consciousness about the costs of the globalization on the human and physical environment.

The growth of organic farming and market has been accompanied by rapid growth in the number and complexity of the different systems of organic regulation- both private and government- and the “lack of co-operation and harmony has become a problem for the harmonization of organic systems (BOWEN, 2002)

Another aspect related to the growth of the organic market is the concentration in terms of cultivated area and income. According to Carvalho (2004), despite organic production being associated to the small family agriculture (60 to 70% of the organic productive

units in Europe are small) has been observed a tendency of concentration, in terms of the area and income. For example, in Europe the medium area passed from 15.8 ha, in 1985, to 27.8 ha, in 2000 (growth equivalent to 75%). With respect to income's concentration, data of the Statistical Review of California's Organic about organic agriculture, between 1992-95, shows that 2% of the certified producers, responsible to 50% of the sales of the sector, had a gross income superior to US\$500,000; while 66% of the small organic producers received a gross income inferior to US\$10,000 and answered for less than 5% of the total sales.

In this sense it is occurring an increasing social distance in the organic global market, which affects the ability of the organic production system to produce sustainability or "functional integrity" and social justice. According to Alroe and Kristensen (2004) these perspectives may lead to the reflexive question of how organic farming can carry on responsibility for sustainable development of the global food system without letting go its principles concerns in relation to the natural life support systems, the relation to new technologies, the social relations between producers and consumers.

Byrne & Glover (2002) identify different positions regarding the role of organic farming in global perspective with regard to globalization and sustainable development in terms of: growth and free trade with certain limits (ecological economy), and growth and free trade as a recipe for ecological injustice (potential ecology).

This third position involves making decisions that have to be taken into consideration not only macro and micro economic elements but also social and political structures as well as institutional, cultural and psychological factors. Such considerations must utilize a reflexive and systematic perspective combined with a network structure that focuses on the self-organization of the organic production system around meaning and values (NOE & ALROE, 2005). Yet this structure can respond to a more nuance analysis of the institution and relations of power, emphasizing the role of social and political, as well as economic, actors and actions in constructing, manufacturing and potentially transforming organic networks (RAYNOLDS, 2004).

Although in the others positions, development and efficiency can be sources of ecological problems and of social injustice, when the trade is presumed to be essentially an economic issue and not a political frame. This is the idea of the neoliberal theory that rejects strictly universal and social political models. It acknowledges only the market as a criterion of justice, which exists basically in the form of fairness of payment, as a result of free transactions on the market.

Sturms (2005) discusses this conception and emphasizes another theory, known as "the neostructuralist", for analyzing the perception of the role of the state and other groups within society in the process of sustainable development and social justice. In her opinion, for the structuralists the competitiveness on a given society is based on four systems-levels (the meta, macro, micro, and mesolevel) and on a multidimensional conception of government including competition, dialogue, and common decision-making, in which important agents are integrated. The solution of problems is more and

more based on horizontal political coordination in pluralistic policy networks, which can contribute to the following functions: the pooling of know how relevant for the decision, continues exchange of experiences, creation of structures of consensus and compromise, creation of a common orientation on the solution of problems by accommodation of interests.

In this sense development isn't a spontaneous process but is a planned and systematic action of the government and the civil society. This imply that the state has to mediate between conflicting agents and take care that weak agents' interests are taken into consideration. According to Brito & Carvalho (2005), when the public policies makes possible the participation of excluded segments and its organizations, creates the necessary conditions for the inclusion of the organizational and institutional environment, in accordance with the necessary social construction for its effective implantation and the empowerment of this specific group.

From this perspective the neostructuralists emphasize the need of social justice for reaching a sustainable development, because it recognizes the importance of helping to "empower" weaker parties to negotiate their interests and proportionate to them voice (participation) and representation.

For Deutsh, apud Rubenstein (2005), social justice must be based on principles of cooperation, such us: equity, equality, and need. Equity refers to a distribution of goods, services, and intangibles values that is proportional to the individual merits of the society's members. Equality denotes a distribution in which each person is assumed to have a right to same quantity or quality of values regardless of his or her merit. And need indicates contributions which are proportional to the needs of each individual. In the opinion of this author a just society is governed by the principles of human equality and equity, recognizing the imperative of satisfying basic human needs as its highest value. The satisfaction of these needs could be the most relevant form of social justice.

The Commission of Human Rights of ONU (2005) recognizes also the importance of the satisfaction of the people and the equitable participation on the context (national and international) for the sustainability of the development and better standards of living.

Based in this scenery this research aimed to understand the reality of the conversion process to organic farming in Canada, which is the central objective of this study. Specifically it reflected about the following questions: what is the reality of the Canadian organic farming's context and what kind of factors have affected the decisions toward a conversion to organic farming? The conversion to organic production system has been a more humane and environmentally friendly? Has the organic production system contributed to a sustainable rural development and to social justice?

The hypothesis is that the organic farming can promote sustainability and social justice, if it includes taking care of human being's needs and rights for all people involved at all levels within the daily organic production system. The research also assumes that a clarification of the perceptions of these actors, with their different backgrounds,

perspectives and relations to governance, can produce important technical discussions, research insights and appropriate actions, which guide relations of production, exchange, and consumption, and can aid organic farming and the sustainability of rural development

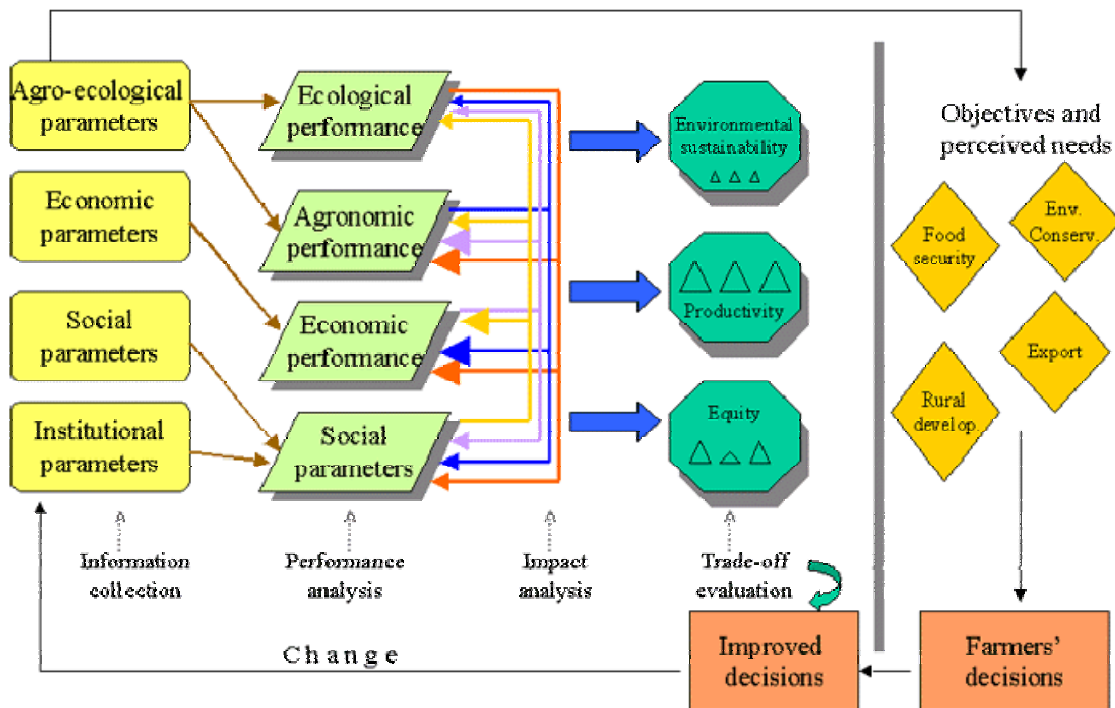
Methodology

For reaching the objectives of the research this study used a systemic and holistic socio-ecological approach as well as a network framework, because it presumes that farmers, researchers, certifying bodies, firms, government authorities and non-government organizations (NGOs) are all involved in the complex web of material and non-material (culture and local values) relationships, linking the social, political, and economic, actors and actions in constructing and maintaining organic networks.

As it is specified in Figure 01, this methodology is based on a socio-ecological framework, because this analysis of farming systems allows farmers and decision-makers to understand problems, issues and trade-offs, weigh outcomes of alternative actions to a chosen set of objectives for to take an appropriate decision. Decisions that attend to economic and environmental sustainability and social justice can contribute to moving towards sustainable development (SCIALABBA, 2000).

This approach includes personal issues, doesn't privilege economics, takes into account aspects of power and gender, and integrates actors and actions, for analyzing changes and decisions. The management in time and space of interactions between agro-ecological, economic social and institutional factors and their performance are lacking of sound decision-making. Farm systems evolve and change through time, in response to their own logic, as well as to the changes, which occur in the micro and macro environment, within which they are immersed. The advantages and disadvantages of the priorities express different attitudes towards nature, society and the ethical decisions involved. In line with this the different priorities and values will have specific consequences on social justice, economic and environmental sustainability. Farming objectives such as environmental and landscape restoration, rural development and local food security or export markets orientation will entail different priorities and value systems.

FRAMEWORK FOR SOCIO-ECOLOGICAL ANALYSIS



Source: Scialabba (2000) Figure 01- Components of the Socio-Ecological Approach Scialabba & Hattam (2002) considers that socio-ecological analysis integrates socio-economic and agro-ecological parameters, which can evaluate opportunities and constraints of organic agriculture, because organic farming prospers on diversified farms with complex interactions. It links agro-ecological specificity with socio-economic diversity. In their opinion, the human dimension has a more dynamic character than the biophysical one and some prognosis of future socio-political developments must be incorporated into the evaluation of land use options. Hence, the practicality of certain practices, their opportunities and constraints, will vary considerably between crops and localities. It is not sufficient to consider the variables within a single dimension. In fact, the performance of each of the agro-ecological, economic, social and institutional dimensions involves trade-offs among them.

Based on the socio-ecological analysis, organic management should include environmental functions of land use as well as a strong human dimension, namely: farmers' ability to predict future markets, the farming communities' characteristics that determine local markets, market integration, the local economic and social forces that dictate which crops will be grown and when, opportunities for unskilled labour and migration flows, and a host of state variables and attendant dynamic rules and regulations of access.

Government and non-government institutions, farmers and consumers make their decisions according to the information available to organic producers. Sound information on the status of renewable resources, natural resources dynamics, land-use and tenure

patterns, socio-cultural knowledge and conditions of the market are necessary to choose among different products and investment resources such as capital, labour, markets structures and support services.

Then, the issue is therefore a matter of understanding relationships, recognition and anticipation of trade-offs, assessment of benefits and alternatives and identification of appropriate management interventions. Farming objectives and management skills are a key to the identification of the course of action

Besides, organic agriculture seeks to optimize the primary efficiency of agro-ecosystems, in compliance with local environment conditions and social needs of a region. Over-stressing any single natural or human production aspect of any sub-system might lead to deterioration of the balanced efficiency of the whole system. Optimizing the synergy of soil-crop-animal and human interactions is therefore the foremost challenge.

Delimitation of the object of study and its population

For contextualization of the study's object it was intended, initially, to characterize the environment lived by the farmers and their family, as a whole. On the other hand, it was presupposed that this process doesn't happen separately, that is, it involves several interconnections between the social actors, associated with this process.

Based on Macey (2004), the population of the Certified Organic Producers in Canada is 3,134; and the Province of Ontario (where the study will be concentrated) has the third position, with 478 producers (15,25 of the total). A questionnaire was sent to all the producers, who have a complete address (400). In the second stage of the research a sub-sample of this group of farmers was select for a deep and evolutionary analysis (before and after the conversion process to organic farming), using a qualitative research methods (life story), for analyzing the conditions and trade-off between the agro-ecological, economic, social, and institutional parameters, assumed by the socio-ecological framework.

Variables and form of collection of data

In the process of collection of parameters a combination of qualitative and quantitative variables were used, to build an ample vision of reality. Some secondary data related to the trend of organic production, based on the readiness of official information were analyzed.

The analysis of the macro context was complemented, using bibliographic review and another research method denominated "life story interview". According to Atkinson (2002), the life story interview is a qualitative research method for gathering information about important events in his or her life, experiences, influences and relationships, demands, feelings and expectations.

In this deeper analysis of this conversion process, the farmers talked about when and why they initiated in this activity, as a producer; they can explain the changes happening in their personal and family life, as well as in the surrounding environment, due to the conversion process to organic farming; their positive and negative experiences in this process; suggestions and perspectives for the future.

Preliminary results and discussion

Results about the characterization of organic farming in Canada showed that the loss of cultural and biological diversity and vigor in the countryside might pose inherent dangers to the long-term sustainability of human survival. In this scenario, one of the alternatives presented has been the gradual conversion from conventional to organic farming whose acceptance has become, every day wider.

Macey (2004) estimated that in Canada the agricultural land under organic production is approximately less than 2%. Therefore Canadian organic retail sales are expected to increase at an average of 20% or more, through to at least 2005. The dominant Canadian organic products include grains, soybean, fruits, vegetables, dairy products, slaughter livestock and specialty products such as maple sugar. However, packaged foods are predominant among organic consumers.

McDonald (2004) and Dainelo (2004) showed that the consumer's demand for Canadian organic foods has experienced intensive growth over the past decade. Consumers buy organic products mainly for the perceived health, food safety and environmental benefits. They're concerned about the effects of the fertilizers, pesticides, growth hormones, and antibiotics on their family's health and they believe that organic production is less harmful to the environment. Then, they're willing to pay a premium price for the safety and nutritional quality of foods

Macey (2004), using historical data provided by Canadian Organic Growers (COG, 2002) and by all organic certification organizations operating in Canada, showed that there exist 391,123 hectares in organic cultivated area and 5,424 ha in transition. According to this author, in 2003, the total number of certified producers was 3,134, representing 1.3 % of the total of farms in Canada.

The figure 02, which presents the historical series of certified organic producers in Canada, shows a decrease in numbers of these producers from 2002 to 2003. According to Macey (2004) this small decrease is a result of the poor growing conditions in the Prairie Provinces, specifically Alberta (AB) and Saskatchewan (SK), rather than a lack of interest in the organic market possibilities.

Although there is no evidence to suggest that organic farms are starting to show similar trends to the overall farm situation in Canada where farms are decreasing in number with higher rates of decrease for small farms and an increase in the number of large farm operations.

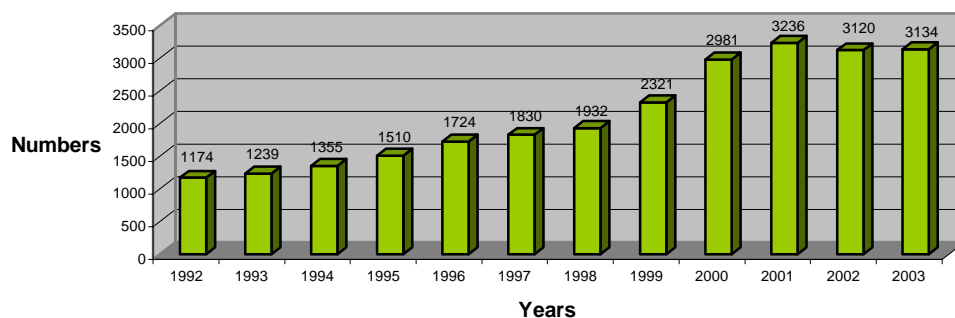


Figure 02. Number of Certified Organic Producers in Canada 1992-2003
Source: A. Macey (2004)

The study of Macey (2004) shows also that Saskatchewan has the most certified producers (1049), followed by Quebec (QC) with 610, Ontario (ON) with 487, and British Columbia (BC) with 420. The numbers of transitional or pre-certification year organic farms are at least 250 (Table 2)

Table 2–Number of Certified and Transition Organic Farms in Provinces of Canada- 2003

Province	Small (n)	Medium (n)	Large (n)	Unknown (n)	Total (n)	% *	Transition (n)
BC	212	120	86		420	2.0%	76
AB	43	41	38	110	245	0.4%	8
SK	136	212	609	90	1049	2.0%	25
MB	35	102	47	29	213	1.0%	25
ON		12	62	413	487	0.8%	41

QC				610	610	1.9%	67
NB	23	8	5		36	1.2%	2
NS	28	11	6		45	1.1%	1
PEI	11	8	4		23	1.2%	5
NF	1	1	1		3	0.5%	
YK				3	3		
Total	491	515	858	1255	3134	1.3% **	250

* % Of total of all farms in each Province.

** % Of total of all farms in Canada (246,923), according to Census' data, 2001.

Source: MACEY (2004)

Empirical evidences showed that the life in this modern pluralistic society is characterized by inequalities and economic inequities, which are resulted in situation of social injustice. According to Benatan (200) the institutions have shifted away from consideration of equity (principle of social justice that allows the “politics of need”) to a market driven efficiency perspective, which don't take into consideration the human development. In the organic production a complex system of interests is verified and the power in it has been different. The economic relation in a free market, where organic production is still immersed, are associated and guides the natural relations, what it makes difficult that the organic system can consist in a social justice factor (D'AGOSTINI E FANTINI, 2003).

In the same context MacRae et. al. (2005) commented that the organic farming exists in a state of disequilibrium and inefficiency, which can be reduced by policy interventions and a diverse range of strategies, which can support the conversion to sustainable organic farming and social justice in Canada. That is, the solution for building a social justice community is basically political (LORENZEN, 2003)

Results, which were obtained by bibliographic review and by life story interview with a sub-sample of Ontario's farmers, showed that the conversion to organic farming depends on producer needs and realities. When they talked about their lives and why they became “organic” they said that the main reasons aren't only economics, but are also socio-cultural and institutional. Specifically the producers are concerned with their personal and family health, with the preservation of the environment and the improvement of their quality of life.

In the perception of the producers “to become organic isn't easy, because it involves a change of values and also a modification in the lifestyle of the family system”. The farmers pointed out also the importance of the associations, which help them in the commercialization of their products. As stated in Lima & Pinheiro (2005), it is important that the fragile side of the chain of productive acts of organized forms to validate its rights, in terms of economic, social and environmental aspects.

The farmers are concerned with the role of the organic farming in the protection of the environment. Some of them expressed that their stewardship was improved, because they

are producing for their family and others safety and healthy food and they are contributing for the conservation of the environment.

The producers believe that government authorities aren't concerned with their needs. (mainly with respect the implantation of the national standards for organic production and a program of organic seeds). In this sense, the government would have to redesigned and implement policies, regulations, programs and services to support the process and organic products. And establishing equivalence among the many private and government regulatory systems was viewed as an important aspect for the harmonization of organic guarantee systems.

The role of the Certifying Bodies in this process of harmonization and also humanization of the organic system is very important, because they have the function to verify "in locus" the different fulfillment of the conditions, which must be observed in organic production systems. The process of certification has added value to organic production and has constructed a relation of confidence between the farmers and the Certified Body. However it is yet fragile the social dimension in the norms for certification organic producers and more timid are the instruments that can be used by the certifying organisms to verify the social aspects of organic systems (social certification). That is, it is necessary a major involvement with the social questions and the ethic nature; as well as at the local culture and values

Conclusions

It is concluded that organic farming is dynamic, with emerging opportunities and challenges. The implementation of an organic production system is associated with a change of values, based in a philosophy and style of life of the actors involved in the organic system, because it includes a variety of preferences and perspectives of decision makers, who operate under real time and resource constraints. Apart from the organic farming demands for balancing decisions about the capacity of the environment and the needs of these actors, with all their complexities and interest.

The complex system of interests verified in the process to conversion to organic farming, in which the power has been un-equal, has resulted from the political and socio-economic conditions of the model of development embedded in the Canadian economy. This model emphasizes the free market (liberalism), which is growth and free trade without ecological borders, which makes it difficult to organic farming ability to become an effective social justice factor. and be able to reach sustainability in all its dimensions- social, economic and environmental.

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