

The Evolution and Structure of China's Organic and Ecological Agriculture Sector

*Summary of Research Findings**

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Project overview and methods

This research was funded by the Social Sciences and Humanities Research Council of Canada. This study sought to (1) explain the organization and ownership structures of ecological and organic farms in China; (2) identify how small-scale farmers have been integrated into these organizational structures; (3) explain the interests and activities of Chinese government bodies at different levels for promoting ecological and organic agriculture; and (4) explore the relationships between producers and consumers in organic food networks such as CSAs (community supported agriculture), buying clubs, and farmers markets.

Through this project, Steffanie Scott with Aijuan Chen, Zhenzhong Si, and Theresa Schumilas collectively interviewed 106 people: employees and owners of organic and green food farms, representatives of organic certification bodies, government agencies, consumer associations, NGOs and community organizers, and researchers. This research was conducted between May and August 2010, February and June 2011, and April and June 2012 in Beijing, Liaoning, Henan, Shandong, Jiangsu, Anhui, Shanghai, Zhejiang, Fujian, Hainan, Sichuan, Chongqing, and Guangxi.

Development of Green and Ecological Agriculture

The main objectives of agricultural development in China have shifted significantly over the past three decades. In the 1980s, the priority of the Chinese government for the agriculture sector was ensuring food security by boosting agricultural productivity through green revolution production techniques. In the late 1980s, Chinese Ecological Agriculture (CEA) was initiated and promoted by the Chinese government to address rising environmental concerns with overuse of agro-chemicals. Since the 1990s, organic, 'green', and 'hazard-free' (or 'pollution-free') food quality standards have been introduced and promoted on a limited basis by the Chinese government to deal with demand for improved food safety and high quality products for both export and domestic markets. The differences between these three food quality standards are outlined in Table 1.

Table 1: Differences between organic agriculture, green food and hazard-free food in China

	Organic agriculture	Green food	Hazard-free food
Year established	1994	1990	2001
Permits GMOs?	No	Yes	Yes
Permits synthetic chemicals & residues?	No	Yes (only some kinds of chemical applications are permitted & amounts are regulated)	Yes (a wider range of agro-chemicals are allowed than for green food)
Initial force	Market (demand-driven)	Government & market	Government initiated
Certifiers and costs	Third party certification; RMB 20,000-40,000	Ministry of Agriculture—Green Food Development Centre; RMB 10,000	Ministry of Agriculture—Center for Agri-Food Quality and Safety; no certification fee
Traceability	Yes	No	No
Period of validity	One year	Three years	Three years
Target markets	Initially international; but since 2007 domestic market was larger than export market	More domestic market, but some recognition in the international market	Domestic market

Different development strategies have been adopted by Chinese government agencies at various levels to promote these quality standards, in accordance with various development objectives. For **organic agriculture**, development strategies can be summarized as promoting organic farming according to China’s reality and local situation (i.e., natural resource and local environment), and complying with international standards and regulations to expand export markets. For **green food**, the development strategy is to improve market competitiveness to meet market demands for high quality food in China. For **hazard-free food**, government agencies seek to transition this from voluntary to compulsory certification in the coming years. Therefore, we can see that the standards for green and hazard-free food have been established and promoted to meet increasing domestic demands for quality food in China, while organic agriculture was originally established to meet international demand, and a smaller niche market within China. There is widespread skepticism that organic production could supply sufficient food to feed China’s population, and little research has been done to compare productivity levels.

Given the different objectives of the three food quality standards, the central government in China to date has made green and hazard-free more of a priority than organic agriculture, although provincial and local governments in some areas have supported the development of organic agriculture with more substantial interventions. There is also a general lack of public confidence in the enforcement of organic and green food standards—which poses a key challenge for promoting these foods.

The types of government involvement and support for these various forms of ecological agriculture are wide-ranging. They include the following:

- State-owned enterprises consolidating rural land
- Establishing eco-agricultural zones, agricultural parks, and demonstration bases
- Land leasing – as a broker
- Training & education
- Administering standards and testing
- Providing loans with low or no interest
- Providing subsidies for certification
- Facilitating farmers' cooperatives
- Purchasing organic food as a perk for Department of Agriculture employees
- Organizing expos and other forms of promotion for ecologically grown produce

While these efforts are substantial, we recognize that state agencies could do more if genuinely committed to supporting ecological agriculture. Most small-scale organic farm operations felt that they did not benefit at all from these government supports, and that government actions were actually antithetical to what they were promoting. Moreover, governments at various levels could play a stronger role by implementing measures to reduce sales of agro-chemical, supporting more research and development in organic agriculture, and addressing the lack of education among the public regarding various food quality standards.

Organizational Structures in Ecological Agriculture in China

This study also sought to characterize the organizational structures and identify their equity implications for smallholders. The mechanisms linking smallholders to value-added markets can be classified into four categories:

- Contract farming (trading/processing companies + farmers' cooperatives)
- Enterprises leasing land (of various scales and marketing channels, e.g., direct to consumer or mass market)
- Farmers' professional cooperatives
- Social enterprises of various forms

We analyzed the organizational structures of organic and ecological agriculture in China by focusing on six aspects: production scale, marketing channels, land access, labour, relationships with smallholders, and profit distribution. The characteristics of each model are summarized in Table 2. The research compared these types of organizational structures, and the equity implications are identified in terms of access to various resources, decision-making in strategic management, and profit distribution. While cooperative and enterprise models focus mainly on economic priorities, CSA and social enterprise models emphasize (re)-establishing direct relationships between consumers and producers, among other social values.

Table 2. Types and characteristics of emerging organizational structures of farms in the ecological agriculture sector in China

Organizational structures	Production scale	Marketing channels	Access to land	Types of labour	Relationship with smallholders	Profits/benefits for smallholders
Contract farming (enterprise + farmers cooperatives)	Large scale	Both domestic and international; various channels (supermarkets, wholesale markets, specialty stores)	Most enterprises have no land; a few have their own production bases	Family members or hired farm workers	Buying-selling relationship	Can sell their products at guaranteed prices
Enterprises leasing land	Various scales	Domestic; direct marketing (CSA, operating own stores, and/or restaurant)	Lease land from local farmers or villages	Hired farm workers	Employee-employer relationship	Receive land rent and wages
Farmers professional cooperatives	Various scales (some very large)	Domestic; various channels	Members farm their own land	Family members	Service relationship	1. Can sell products at guaranteed prices; 2. Receive secondary profit redistribution through the cooperative
Social Enterprises	Small scale	Local markets	Lease land from farmers	Hired farm workers and volunteers or interns	Beyond employee-employer relationship; e.g., promote local development and conserve traditional farming technologies	1. Receive fair wages as farm workers 2. Farmers can sell quality products to the enterprise at high prices 3. Other benefits for poor farmers

Note: names of farms/cases have been omitted to protect confidentiality.

Within the category of farmer professional cooperatives, we found that they tended to be initiated and led by large-scale farms, private agricultural enterprises, or external forces—such as through the involvement of government agents or scholars as information providers or entrepreneurs. The challenges faced by farmer professional cooperatives included the following:

- Small scale
- Small share (covering small portion of agricultural areas)
- Internal management issues (standards compliance, and conflicts or lack of trust between key members or leaders and regular members)
- Limited financial resources (e.g., difficult to get loans)
- Loose definition and regulation of farmer professional cooperatives (some are not really farmers' organizations)

Compared to the enterprise models, in the farmer professional cooperative model, farmers have access to land, infrastructure, farming knowledge and marketing information. They are the main decision-makers at all stages of the supply chain, rather than relying on other actors to sell their products or to earn wages. Farmers within such cooperatives showed a comprehensive understanding of ecological and organic farming and demonstrated a stronger commitment to sustainable development in their daily operations. The farmer cooperative model illustrates stronger opportunities for smallholders to improve farmer livelihoods and ensure the long-term viability of local communities through involving smallholders in decision-making.

The other enterprise models can also play important roles in linking smallholders to value-added markets, although these models are more driven by company profits. Given the barriers that smallholders encounter, not all smallholders can establish their own cooperatives and operate them independently. In these circumstances, the other enterprise models offer an option for smallholders to engage in ecological and organic farming and be involved in value chains.

Direct to Consumer Channels

The growth in incomes and emergence of a middle class, coupled with highly publicized food scandals in recent years, is fueling the demand for high quality and organic food in China. At the same time however, there is a lack of public confidence in certification processes. In rejecting certification (due to cost and lack of public trust in the organic label), consumers and producers are beginning the complex civil process of reconnecting and renegotiating trust through direct relationships. Yet this 'trust' is difficult to establish. Consumers and producers alike describe their lack of trust in certification. Many seem to rely on seeing the production for themselves through personal visits, questions, and word of mouth. Thus a system of well-networked, direct producer-consumer forms of food procurement is evolving in parallel with the market-oriented organic certification system. These nascent direct-to-consumer food networks (many only 2-3 years old) are taking diverse forms such as Community Supported Agriculture farms, Organic Country Fair markets, consumer-organized buying clubs and other informal food procurement networks.

CSA Farms ‘with Chinese characteristics’

Community Supported Agriculture (CSA) is frequently studied as a type of producer-consumer venture in Western alternative food system scholarship. In the West, the CSA illustrates an alternative economic model in which a producer’s costs, including the costs of environmental stewardship and economic risk, are divided fairly among consumers (usually referred to as members) who make a payment to the farmer in advance of the growing season in exchange for a share of whatever the farm produces. After emerging in the mid-1980s, the CSA model has diversified and spread across North America, Europe, Australia/New Zealand, and now seems to be rapidly evolving in China. These “made in China” CSAs, however, are different from Western equivalents in important ways. Most Chinese CSAs operate more closely to a dominant market approach, with producers as entrepreneurs taking the risk, consumers dictating choices, and the use of market-based price setting.

Country Fairs

New urban-based farmers’ markets, often referred to as country fairs, are emerging in many larger cities in China through the support of volunteer organizations. The volunteers involved in these markets are well-connected and actively building networks at municipal, provincial, and national levels. Smaller farms that are selling via these alternative models rely on negotiating trust with consumers rather than trusting the quality assurance of certification. The Organic County Fair, as it is called in Beijing¹, seems to be emerging as a new model that enhances understanding between eaters and producers while also serving as a platform for education and advocacy. The fair is being established in at least six major cities in China through the use of a micro-blog, *weibo*—which had at least 30,000 followers in Beijing by April 2012. It seems to be emerging as a strong example of a volunteer-organized alternative where vendors are screened based on a set of criteria that stem from the organic standards. There is a strong orientation to build a sense of community and create something that moves beyond a market approach.

Consumer-Initiated Buying Clubs

Motivated by concerns of food safety and individual health, Chinese consumers are taking matters into their own hands and forging connections with uncertified producers whom they screen directly through farm visits and in-depth questioning. In essence, these consumers are doing the work of a certification system by developing criteria important to them and then interrogating producers to locate those who meet these criteria. These buying clubs and consumer associations appear to be the most informal and least institutionalized of alternative food networks in China. Through websites and personal networks, they identify sources of healthy and ecologically produced food and arrange for bulk purchases. These are not merely purchasing groups, however, as they also assume an educational role through providing lending libraries, workshops, farm visits and food tastings, and individualized advice to members.

¹ In other cities, it is called the green farmers’ market, the good farming farmers’ market, and the origin market.

Conclusion

While globally, ecological agriculture is emerging as an ‘alternative’ to (subvert) industrial agriculture, in China, paradoxically, it is to a large extent a vehicle for agricultural modernization and neo-productivism, absent of any language of justice, food sovereignty, autonomy, empowerment or fair trade. Within the alternative food networks we observed, there were only limited cases of consumer organizations, farmers’ markets, restaurants, or independent ecological farmers promoting ‘ethical consumerism’ values such as social justice, fairness for farmers’ livelihoods, concern with environmental degradation, or anti-corporate sentiment. And although in North America food localization has become a strong social movement overlapping with the organic movement and encouraging consumer support of local organic producers, there is limited evidence of such a movement in China. In its absence, organic production could more be easily subsumed by large food companies and transformed into a conventional food business.

Overall, much more needs to be done to build awareness about what organic means, the challenges of organic production, the reasons why we should pay more for it, and the realities of farmer livelihoods and a dysfunctional food system. This is very hard work, and currently only a few dedicated values-oriented CSA programs, buying clubs/consumer associations, restaurants, and organic farmers’ markets are doing this work, while most organic food is produced and sold by larger enterprises solely motivated by profit.

While a diversity of business models exists in China’s ecological sector, the government commitment to ecological production is generally shallow and is focused on certification processes and large scale, technologically intensive, highly managed forms of ‘ecological’ agriculture. The recently revised (in 2012) national organic standards, while initiated in response to concerns over fraud and ensuring high quality food, paradoxically seem to be further exacerbating the problems. As organic certification becomes even less feasible for smallholders, this has the unintended consequence of stimulating civil society organizing, such as farmers’ markets and buying clubs. However, organizers of such community markets recognize that this is politically sensitive and are proceeding cautiously.

While it is impressive to see that alternatives to the conventional, productivist food system are emerging, the degree to which these illustrate ethical consumerism—or an ‘ethics of care’ for the environment and for others—is unclear. Initiatives often seem to be instigated by, or linked to, government and/or academia, and there are few examples of autonomous civil society-initiated activism. Furthermore, building trust and cooperation between producers and consumers is challenging in an environment characterized by chronic food safety problems and sensationalized media coverage. However, these emerging alternative models reflect a different vision and highlight the types of food systems that are possible. As such, they could have important future trajectories.