

# The alternative food movement in Japan: Challenges, limits, and resilience of the *teikei* system

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**Abstract** The *teikei* movement is a Japanese version of the alternative food movement, which emerged around the late 1960s and early 1970s. Similar to now well-known Community Supported Agriculture, it is a farmer-consumer partnership that involves direct exchanges of organic foods. It also aims to build a community that coexists with the natural environment through mutually supportive relationships between farmers and consumers. This article examined the history of the *teikei* movement. The movement began as a reaction to negative impacts of mechanized and chemically intensive agriculture promoted by the Japanese government. The movement experienced a rapid expansion in the early 1980s, and then gradually declined thereafter. The organic market expansion and certification system intersected with both cultural and gender role changes, impacting the *teikei* movement negatively. Consequently, the membership of *teikei* consumer groups has shrunk. Furthermore, the March 2011 Fukushima Daiichi nuclear power plant accident caused unprecedented damage to organic farmers in the affected regions. Despite the scientific uncertainty about the safety level of radiation exposure, the organic farmers and the *teikei* consumer groups managed the situation and found a way to inspect radiation contamination. They did so with the support by networking with other *teikei*-related actors. This response to the nuclear power plant accident suggests that although the level of embeddedness presumably varies among *teikei* actors, ethics guided by the *teikei* principles are effective in forging a resilient partnership between farmers and

consumers and in keeping the *teikei* system alive as an agent for social change.

**Keywords** Alternative movement · *Teikei* · CSAs · Japan · Organic farming · Housewives

## Abbreviations

ATTT Anzena Tabemono-wo Tsukutte Taberu-kai  
JOAA Japan Organic Agriculture Association  
MAFF Ministry of Agriculture, Forestry and Fisheries of Japan

## Introduction

Alternative food movements have been taking place in many parts of the world. The Japanese version is known as the *teikei* movement. It is a partnership between growers and consumers in which farmers share organically grown produce and, in return, consumers support and secure viable farm operations. This partnership aims to restore and enhance the ecological and agricultural landscapes of farms and their surrounding areas. In essence, the *teikei* is a grassroots movement that intends to create an alternative agrifood system through organic farming and its consumption. *Teikei*'s history dates back to around the 1960s and early 1970s. Since then, *teikei* has become a forerunner of the alternative food system and has inspired similar initiatives, such as community supported agriculture (CSA) in the United States and the *Association pour le maintien de l'agriculture paysanne* (AMAP) in France (Henderson and van En 2007; Ostrom 2007).

In nearly four decades of *teikei* history, this grassroots movement has witnessed many ups and downs, with socioeconomic and cultural changes in wider society

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having a significant impact on the movement. Yet, even though *teikei* has played some role in the development of alternative food movements in many parts of the world, the English-language literature on *teikei* is limited. This is unfortunate, in particular because the Japanese *teikei*'s experiences, challenges, and obstacles could provide important information to help promote sustainable food production and consumption for the ever-increasing world population at a time when we face unprecedented environmental problems, such as climate change. This paper, therefore, intends to fill this knowledge gap. I first provide a historical account of *teikei*'s development and then discuss the challenges faced by the present-day movement. This includes some of the responses to the Fukushima Daiichi nuclear power plant accident, which contaminated the surrounding area with radioactivity, resulting in devastating damage to organic farmers.

Data used for this paper were derived from a variety of sources. I examined archival documents from existing literature and newspapers to government documents and statistics. I also conducted fieldwork with a *teikei* consumer group called *Organic Village*, for approximately 6 months beginning in November 2012. *Organic Village*, consisting of about 60 members, is located in a suburb of Tokyo. Since this group was one of the oldest *teikei* consumer groups, I was able to examine the historical transition of the group and the nationwide movement in general. During my fieldwork, I participated in various group activities and interviewed members informally. I also visited two farms and interviewed their operators.

### The emergence of *teikei*

“*Teikei*” means “partnership” in Japanese, and the *teikei* movement is literally a grassroots movement based on a partnership between organic farmers and consumers. Its goal is to build a partnership between these two parties based on mutual understanding and trust through repeated interactions. It is an alternative to the conventional food system, which is characterized by instrumental relationships created to trade agricultural commodities. Instead, *teikei* tries to overcome the boundary between these two actors to create a sustainable and equitable society.

The history of organic farming in Japan dates back to the first half of the twentieth century with multiple roots. In the 1930s, Toyohiko Kagawa, a Christian pastor and social reformer who translated John Russel Smith's *Tree Crops* in Japanese, came up with the idea of integrated livestock agriculture and tree farming (Kagawa and Fujisaki 1935).<sup>1</sup> Masanobu Fukuoka, who is now known worldwide, developed his natural way of farming or *natural farming* in the 1940s. Shigekichi Okada, a Christian pastor, is another

figure who disseminated his organic techniques to his followers prior to World War II (WWII). In 1959, when the application of synthetic chemicals in agriculture became widespread, some medical doctors became concerned about the negative health effects of pesticides in their patients. Giryo Yanase, who practiced medicine in Gojyo City, Nara Prefecture, and Magoie Ando, from Fukuoka Prefecture, formed two of the earliest partnerships between organic farmers and consumers independently (Jikou-kai n.d.; Ando 1976).

Yet, it wasn't until the 1970s that the earlier efforts were further developed into the *teikei* movement as a response to the modernization of agriculture promoted by the Japanese government. The government enacted the Agricultural Basic Law in 1961 and set its policy goal of modernizing agriculture to make production more efficient. Along with increasing farm size, mechanization and the use of fertilizers and synthetic chemicals were primary strategies used to carry out this policy goal. Although the government faced persistent resistance from farmers in its effort to create large-scale farm operations by merging small farms, it largely succeeded in implementing the other two strategies. The newly created extension system played a key role in this accomplishment. While farmers resisted at the beginning, extension experts' visits to rural communities to teach the use of pesticides helped to change farmers' attitudes towards pesticide use. By the end of the 1960s, rural farming communities across the nation extensively used pesticides (Matsumura and Aoki 1991). With that change, farm practice had changed from subsistence to a commercial operation that grew a few crops, in most cases rice, for the market.

On the consumer side, a growing number of people became skeptical about the shift of agriculture in the early 1970s. They raised questions about the possible adverse health effects of the synthetic chemicals used in food production. When the government banned dichloro-diphenyl-trichloroethane (DDT) and benzene hexachloride (BHC) because of their environmental and health risks, concerns among consumers were heightened. Minamata disease and other severe industrial pollution outbreaks that grabbed newspaper headlines amplified consumer unease about food safety (ATTT 2005). Apprehensions grew even further when news about polychlorinated biphenyl (PCB) residuals in human breast milk was reported (Asahi Newspaper 1972). To avoid potential health risks, these concerned consumers sought chemical-free food. At that time, however, agricultural products sold at grocery stores in Japan were almost always grown by conventional

<sup>1</sup> Both integrated livestock agriculture and tree farming later influenced sustainable agriculture such as agroforestry and permaculture.

farming methods with synthetic chemicals. Thus, these people came up with the idea of forming a buying club and purchasing chemical-free products directly from producers.

The direct purchase of milk expanded rapidly and became a large-scale practice. In the late 1960s, eight farmers' cooperatives on Hokkaido Island, Japan's second largest island located in the north, had established a company to process and deliver fresh milk to consumers. The leader of this cooperative wanted to increase its market power because large processing and distributing corporations previously had controlled the price that their milk producers received for fresh milk (Yotsuba n.d.). In 1972, the company started to deliver its milk to the Tokyo area and later to other urban centers. Urban consumers who had concerns about food safety welcomed this effort, and the membership rapidly increased to 30,000 households in 1973 (ATTT 2005, p. 43).

Some of the milk-buying clubs then began to purchase organic produce as well. The *Anzenna Tabemono-wo Tsukutte Taberu-kai* (literally meaning the Association for Growing and Eating Safe Food, hereafter referred to as ATTT) is an example of this. According to a book written by its core members, the group was formed in 1972 by housewives in a suburb of Tokyo (ATTT 2005). It started as a study group on food safety in response to food contamination reported by the media, and it later became a milk-buying club. In the fall of 1972, the group—desperately looking for organic farmers—visited a village in the outskirts of Tokyo where a cousin of one of its members farmed. They asked the farmers there, who met at first time, to raise vegetables and eggs organically for the group. Although the farmers were unsure about this almost abrupt, unusual request and had little knowledge of organic farming, 17 farmers in the village decided to try it. This unplanned act, spurred by the consumers' urgent search for safe food, was the beginning of one of the *teikei* partnerships.

It is important to mention that ATTT offered the farmers three things, which were the main reasons that the farmers agreed to the request. They promised that they would buy the entire volume that the farmers produced, that they would provide labor to help the farmers, and that they would also allow the farmers to set prices to secure a viable operation. These offers were presented to the farmers because when ATTT members studied the health and environmental risks of chemical synthetics, they learned the problems of modern agriculture as the root causes of these risks and the importance of equitable relationships between farmers and consumers (ATTT 2005). Here, we can see the basic rules that later developed as the *teikei* philosophy being shared among consumers and farmers.

For the delivery of organic produce, ATTT took a model used by buying clubs and food co-ops. The members were divided into small groups, called *post* or *han*, meaning unit,

each consisting of at least 15 neighboring members. The farmer dropped off produce once a week to each unit. Then, within a unit, the produce was allocated to individual members. This work was shared within a unit and done on a voluntary basis (ATTT 2005). In 1975, membership increased rapidly to 750. It grew steadily in the 1980s, reaching 1,300, and then declined in the 1990s. In 2004, there were approximately 850 members.

The operation of the ATTT was not easy, especially at the beginning. The farmers had little knowledge about organic techniques. They first grew a few items experimentally. The yields were neither stable nor a reasonable volume for the members; yet the ATTT was supportive and patient with the novice organic farmers. For instance, in the early years when the farmers had a high yield of Japanese mustard spinach, they accepted all the spinach and shared it among all the members to keep the agreement (ATTT 2005, p. 56). Normally, one or two batches are about the right amount for a single household. However, 20 batches were allocated to each household at once, and the same amount was given for a couple of consecutive weeks. In some units, members sold the spinach to non-members in their neighborhoods. They also had to deal with complaints from their family members as well as managing the financial burden because the price was based on unit of yield, not cultivated areas or annual membership fees. One member recalled this event, saying “with my pride as a woman at stake, I would do whatever was necessary [to keep the promise with the partner farmers]” (ATTT 2005, p. 56). This episode illustrates members' enthusiasm about the partnership and the grassroots alternative food movements that had just launched.

During this time, several more *teikei* consumer groups were formed in urban areas. Meanwhile, on the production side, there were farmers who raised concerns about government-led modernization in agriculture. In Tokyo, Hiroshi Ohira, a respected early *teikei* farmer who believed he had lost his father because of cancer caused by pesticides, started organic farming and marketed his produce directly to local consumers. Midori Kaneko, one of the veteran and current leading figures of organic farmers, started to operate his farm located in a suburb of Tokyo as a *teikei* organic farm.

A group of young farmers in Takahata Town, Yamagata Prefecture, a small rural town located approximately 350 km north of Tokyo also joined this emerging organic movement. They had become very critical of modernization around the end of the 1960s (Matsumura and Aoki 1991). Agriculture in the northern part of Japan is disadvantaged due to a shorter growing season and severe weather, and consequently many farmers in the area were struggling economically. When Japan enjoyed the economic boom after WWII, many male farmers from the

region migrated to Tokyo and other urban areas for off-seasonal work outside of farming. While migration brought them some cash, the working conditions in the construction and services sectors in which they usually found jobs were harsh and unsafe with low wages. Takahata's young farmers began to realize that they were being exploited by the farming system promoted by the government. They migrated to earn extra cash to pay back loans for agricultural machines and chemicals. What they realized is similar to "the treadmill of agriculture" discussed by William Cochrane (1958) although Takahata's case is unique to some extent because the farmers' ability to increase farm income was limited due to weather and the size of their farms, resulting in them turning to seasonal migration to pay back their technological investments. Some of the farmers were also concerned about the effect of pesticides on their own health when they sprayed their crops. They were further frustrated when they learned about a crucial change in agricultural policy that deeply affected them. In 1967, the government announced that the yields of rice, a primary staple food for the Japanese, had reached a self-sufficient level of production. While ending starvation was the most urgent political priority for post-WWII Japan, once it had been overcome, policymakers considered overproduction problematic since it would lead to lower prices. In 1971, the government implemented a policy that intended to reduce rice production. This policy change made the farmers increasingly distrustful of the government. They thought that there were not only health, social, economic, and environmental impacts from the new agricultural methods promoted by the government, but also that the policy deprived them. They felt that all their hard work to increase production had been for nought, which made them seek alternative approaches to the government's modernization efforts. They found promise in organic farming, which allowed them to re-nourish fertility of the soil and to get rid of health risks associated with pesticides. They also believed that it helped them escape from the conventional modernized system that exploited small, marginalized farmers by minimizing the purchase of agricultural materials, which made viable farm operations possible without the need for seasonal migrations (Matsumura and Aoki 1991; Hara 2011).

In 1973, they created *Takahata Yukinogyou Kenkyu-kai* (meaning the Association for Takahata Organic Farming Studies), and in the following year, they made a transition to organic farming. While they originally wanted to market their produce locally as a means to build a sustainable community, they found that in rural areas, where many non-farmers still grew vegetables in their backyards for their own consumption, it was hard to find a sufficient number of consumers who purchase their produce. Consequently, they started marketing to consumers groups in

the Tokyo area in 1975. While this was a shift away from the original idea of local marketing, their partnerships with urban consumers made them leading *teikei* farmers (Matsumura and Aoki 1991; Matsukata 2008).

Under the government policy aiming at the industrialization and modernization of the agricultural sector, consumers and farmers who found profound contradictions in the agricultural policy met and began to work together. This was the dawn of the *teikei* movement. The *teikei* movement was different from other movements that engaged in lobbying and demonstrations because it was a grassroots movement that intended to alter the participants' existing way of life in order to build new agricultural and ultimately social systems through cooperation between farmers and consumers.

### The philosophical basis of *teikei*

In 1971, scientists and scholars who were deeply concerned about the safety of agricultural chemicals on humans and the ecosystems established the Japan Organic Agriculture Association (JOAA). From that point forward, the JOAA led the *teikei* movement. Among the founding leaders, Teruo Ichiraku was the most influential figure. As the person who organized its steering committee and became one of its first directors, he made the association a central place for organic farming and the movement. Through seminars and workshops as well as annual meetings, the association promoted and disseminated information about organic farming. It was also the place where farmers could meet other farmers and prospective consumers. In addition to these various practical functions, the association became the philosophical underpinning of organic farming and *teikei*. In 1978, the JOAA put together *teikei*'s ultimate goals, called *teikei*'s 10 principles, based on the practices and dialogue of the early years (JOAA 2010a).

According to these principles, farm practices and farmer–consumer partnerships should be characterized by the following: (1) engaging in mutual assistance; (2) carrying out crop planning together; (3) accepting all produce by consumers; (4) setting prices in the spirit of mutual benefit; (5) striving for mutual understanding, respect, and trust; (6) managing self-delivery in order to promote interaction between farmers and consumers; (7) engaging in democratic management; (8) emphasizing learning; (9) sustaining a workable size to stay in organic practice and maintain viable management; and (10) making steady progress toward the ultimate goals of *teikei*.

The spread of organic farming in Japan in the 1970s and 1980s was almost exclusively undertaken by citizens as a volunteer activity. During that time, the Japanese government neither provided any support for organic farming nor

acknowledged the importance of the *teikei* movement in the creation of a sustainable society (Nakajima 1997). Despite this, the JOAA provided not only a physical place for people to get together, but also a symbolic community where people could share an identity. As shown in the case of the development of the *teikei* principles, the JOAA provided “official” meaning for their efforts.

A unique feature of the *teikei* system is the role played by consumers. In particular, during *teikei*'s early history, the majority of partnerships were initiated by consumer groups (Matsukata 2008). These groups played an integral role in developing the system and making organic products popular. Without their efforts, the organic farmers would not have had an avenue through which to sell their products because the conventional markets run by farmers' cooperatives and middlemen did not accept chemical-free, non-standard-sized products in the 1970s. For the consumer, therefore, buying from farmers directly was the only way to obtain organic products. An important question then is why these consumers created groups and worked collectively in their quest for organic foods rather than acted individually. The most important reason was that food co-ops and food-buying clubs were already widespread in Japan, and they served as a model for *teikei*. In Japan, the first co-ops, modeled on the Rochdale Pioneers Co-operative, appeared in 1879 (Saito 2010). After WWII, when people were suffering from food scarcity and high inflation, buying clubs were organized in neighborhoods across the nation (Iwane 2012). Food co-ops also sprang up according to people's needs and legal backup. For consumers who had concerns about food safety, it was quite natural to act collectively by using the existing cooperative model and modifying it according to their purpose.

What made *teikei* different from the existing food co-ops at that time was its emphasis on alternativeness. A leader of *Organic Village*, one of the early *teikei* groups commented that she wanted her group to be different from the food co-ops. Many food co-ops had already grown in size in the 1970s, and critics pointed out that consumers, including co-op members, were being selfish by demanding endlessly cheap products (Matsukata 2008). In response to this issue, she wanted to build a mutually supportive partnership with the farmers in her *teikei* consumer group. In addition to ATTT, this account suggests that the leaders of the *teikei* consumer groups clearly envisioned an alternative farmer–consumer relationship through their food-buying activities from the very beginning.

In addition, as the founding father of *teikei*, Ichiraku is the individual who emphasized the social reformation aspect of *teikei*. Ichiraku envisioned that creating a genuine partnership between farmers and consumers is the best way to transform society from the bottom up. I would argue that this is an advanced form of cooperative, which is

collaboration among a single actor such as the group of farmers, consumers, or workers. Instead the *teikei* system connects two separate actors, which were farmers and consumers. Ichiraku's strong commitment to the movement came from his assessment that since food is essential for everyone, every individual can join the movement.

### The rise and fall of *teikei*

Over the years, *teikei* has developed various forms of partnership. These can be classified into five typologies based on the type of actors in the partnership: (1) consumer group—individual farmer partnership; (2) consumer group self-farming; (3) consumer group—farmer group partnership; (4) individual farmer—individual consumer partnership; and (5) farmer group—individual consumer partnership.<sup>2</sup>

During 1974–1975, Sawako Ariyoshi, a female writer, published a series of scientific essays titled *Fukugo Osen*, meaning “compounded pollution,” in a national newspaper. The essays condemned chemical substances, from pesticides and food additives to synthetic detergents, for causing complex and unpredictable compound effects on human health and ecosystems. She reported warnings that she drew from her extensive interviews with scientists and medical doctors. She also introduced the *teikei* system as a solution to the multifaceted risks rooted in modernized lifestyles. The essays received widespread support from the public, who became aware of the risks associated with these chemicals. Among the most influenced groups were housewives, who were responsible for the food for their families. They rushed into *teikei* consumer groups, and when there were no *teikei* groups in their communities, they formed new ones (Matsukata 2008).

By the 1980s, the *teikei* consumer groups had spread to many parts of Japan, and the movement enjoyed its climax. Both the number of groups and members hit their peaks during the first half of the 1980s. While in the 1970s most of the *teikei* consumer groups were formed in metropolitan areas, in the 1980s the geographical locations of the groups were extended across Japan to include the suburbs and mid-sized cities in rural Japan.

During the second half of the 1980s, the number of *teikei* partnerships as well as members began to gradually decline (Matsukata 2008). Although there are no comprehensive statistics about the number of *teikei* consumer groups, 238 groups responded to a nationwide survey

<sup>2</sup> Matsukata (2008) identified three typologies based on whether the consumer or farmer initiated the partnership. In order to classify the nature of the partnerships themselves, I rearranged her typologies into five.



conducted in 1990 (Matsukata 2008), only 46 groups responded to the 2009 study (JOAA 2010b). While there were several reasons for the waning numbers, the increased demand for organic foods brought new players to the market and ironically accounted for the decline in *teikei* groups. In the early 1980s, small, local food co-ops began to build partnerships with organic farmers. Then, large, regionally or nationally organized co-ops also began to sell organic foods.<sup>3</sup> Some small co-ops, which were being run by the traditional unit delivery system, adopted the *teikei* model and its principles well. Organic foods were delivered by farmers to small units consisting of several members. These small co-ops also made efforts to educate their members about the importance of organic farming. The large co-ops, however, were less likely to engage in these activities. In fact, it was structurally difficult for them to promote face-to-face relationships with the farmers since store sales had become their dominant form of business practice, replacing the unit delivery system that had naturally created repeated interactions between the *teikei* farmers and members (Okabe 1988; Masukata 1991).<sup>4</sup>

In the 1980s, organic food retailers who delivered to their customers via parcel delivery services emerged (Furue and Tanaka 1998).<sup>5</sup> Although they supported organic farmers, their business model offered their customers limited opportunities to have direct contact with the farmers. Learning about farmers through newsletters and occasional farm visits for recreation were the primary means of contact with farmers, resulting in their participation in the organic food movement becoming mostly passive and indirect.

By the mid-1980s, supermarket chain stores had also begun selling organic produce. Although they purchased some produce from farmers or farmers' cooperatives, they also bought from wholesalers (Nakajima 1997). In terms of the farmer–consumer relationship, supermarkets made no particular effort to create such direct connections. In addition, the number of organic food stores had increased, and some of these operations were owned by individuals as independent businesses while others were structured as chain stores (Nakajima 1997).

The organic produce distribution routes diversified throughout the 1980s and continue to do so today. They started with direct trading between farmers and consumers through the *teikei* partnership, and then extended to

retailers, including food co-ops, independent stores, and chain stores. The way organic produce is delivered to consumers has also diversified, from farm-to-home direct deliveries, which encourage face-to-face interactions, to parcel services and shopping at retailers. Wholesalers have also joined organic trading. However, the increasing popularity of organic produce that accompanied these market developments has not promoted the alternative food systems that *teikei* movement intended. Rather, the market has gone in the opposite direction. The philosophical messages of *teikei* became detached from organic produce when conventional food businesses became involved as they paid almost no attention to the sociocultural and environmental values of organic food. In this sense, one could argue that the conventionalization and consequently commodification of organic produce occurs when the market rises. This Japanese experience largely parallels examples in other countries (Buck et al. 1997; Guthman 2004; Best 2008) although the Japanese case differs in that the *teikei* system started when there were no organic markets.

In addition to these market transformations, societal changes have also influenced the rise and fall of the *teikei* system. In Japan, the role of women in society changed considerably during the 1980s. Originally, the typical member of a *teikei* consumer group was a housewife who was raising children.<sup>6</sup> Many women, including housewives, began to hold jobs during this period, although the majority of them engaged in part-time jobs. A *teikei* consumer group is a volunteer system. It cannot be run without members' volunteer work, from the management of the group to its dairy activities. In many groups, for instance, when the organic produce was delivered to the post of each unit every week, it was allocated to each member by the members themselves. This volunteer work contributed to reducing the farmers' workload and keeping produce prices low to some extent (Nagasaka 2012). However, this is also the main reason that *teikei* is considered unattractive to new generations. In the course of my fieldwork, I repeatedly heard that the member's children, now grown up, are not interested in participating in the group. These "organically raised" children of the first generation of *teikei* members acknowledge the superb flavors of organic fruits and vegetables, and appreciate their mothers' hard work to acquire them, yet they think it is neither possible nor interesting to commit to a *teikei* group. Shared work and voluntary participation, which are integral elements of the *teikei* principles, became impractical when women

<sup>3</sup> Food co-op memberships increased greatly in the 1980s. In 1982, there were 7,820,000 members nationwide, a 7.7 % increase from the previous year (Okabe 1988: 28).

<sup>4</sup> During this period, three sales avenues were available to co-ops: group deliveries, store sales, or a combination of these two (Okabe 1988: 31).

<sup>5</sup> Parcel delivery services first emerged in Japan in 1971 and grew rapidly throughout the 1980s.

<sup>6</sup> According to a survey conducted in 1981 by ATTT, 73 % of their members were housewives without jobs. At the same time, 20 % of members had experience as management committee members, and 25 % had experience in farm work on partner farms (ATTT 2005: 181).

began to work outside the home. As a result, the average age of *teikei* consumer group members began to rise, which threatened the continuation of the groups. At the same time, the long-time members' life stages and family structures changed. Many of their children left home, and these households no longer needed the same volume of produce, which led them to leaving their groups. In another case an older member left because she could no longer participate in the shared work due to her deteriorating physical condition as she aged. To date, in addition to the difficulty of attracting new members, members leaving and aging are issues that many *teikei* consumer groups face.

To deal with this situation, some groups started parcel delivery services instead of unit deliveries, with fees being charged to members who were unable to do volunteer work. ATTT started parcel deliveries in 1995. In the same year, it also started trial boxed produce deliveries, which were packed before shipping from the farms, for those who were unable to participate in the allocation tasks in each unit (ATTT 2005).

The consumer culture that emerged in the 1970s blocked the further expansion of the *teikei* movement. Once economic growth fulfilled people's basic needs, the Japanese cultural orientation shifted away from communal values and mutual support, and placed more emphasis on consumption. Indeed, what people consumed defined who they were and constituted their identities (Shiota 1976). Various types of media, including advertisements and magazines, endlessly informed people about what they should consume (Yamazaki 1984). During this cultural trend, organic foods were marketed as "healthy" foods, and the social responsibility of consumption had small voices. For instance, according to a survey of the general public, 76 % of the respondents raised safety as a reason for purchasing organic foods while only 5 % cited environmental concerns (Ministry of Agriculture, Forestry and Fisheries of Japan [MAFF] 2005).

### Organic certification

In 2000, a government-led organic certification standard, referred to as Yuki JAS, was introduced in Japan. Despite the rising interest in organic food, its relative volumes are still minor. One study estimated that organic farm products comprised only 0.2 % of the total food production in 2009, and the certified organic acreage in 2010 was only 9,000 ha or 0.2 % of the total cultivated acreage in Japan (MOA 2011).

There is an argument that organic certification has negative impacts on the alternative food movement (e.g., DeLind 2000; Guthman 2004). In Japan, negative impacts have been experienced by uncertified organic farmers in

particular. The relative costs of obtaining certification are high for small family businesses, like *teikei* farmers. Although some countries (e.g., the US) have supported small farmers by funding the costs of getting a certificate, the Japanese national government has not implemented such assistance. The certification process is also complicated, and these farmers often have little time or manpower to apply for certification (Nagasaka 2012). In addition, the certification rule is a product of compromise, reflecting many stakeholders' interests, including those of conventional growers, distributors, large retailers, and foreign exporters. For some *teikei* organic farmers, the certified standard is far from the ideal form of organic farming that they have been working to develop on their farms. They consider that organic farming should neither be narrowed to the non-use of synthetic agricultural chemicals and fertilizers, nor standardized into one uniform set of techniques. Rather, it comprises diverse integrated technologies and knowledge, including learning and adjusting to locally unique geographies and climates, and site-specific soil. For these farmers, organic farming is built on natural laws, and involves their lifestyles and connections to their communities and consumers. Thus, these farmers are not interested in obtaining a certificate, especially given the extra costs. For these reasons, a substantial number of farms practicing organic methods have not received certification. A study in 2010 estimated that more than 7,800 organically producing farmers were not certified, while 3,815 farmers had obtained certification (MOA 2011). Although the study did not report how many *teikei* farms are certified or uncertified, it can be reasonably assumed that a good number of them are included in the uncertified group. Furthermore, Ichiraku, *teikei*'s leading figure, stated that the certification is unnecessary for *teikei* partnerships because consumers' expectations and trust of the farmers, in addition to the repeated interactions between them, secured organic quality. Consumers could also check *teikei* farmers' practices when they worked on the farms (Ichiraku 2009).

Although *teikei* farmers were the pioneers of organic farming, since the introduction of the organic certification law, uncertified farmers who grow organically are no longer able to use the "organic" label on their products (Nagasaka 2012). This creates a contradiction. To date, the volume of imported organic fruits and soybeans under the Yuki JAS certification exceeds the domestically produced certified volumes (MAFF 2013). Although there is no detailed information about these organic imports, one can safely assume that a large proportion of, for instance, soybeans is produced on large-scale farms outside Japan using a lot of energy in their production and shipment to Japan. These can be advertised as organic, but locally grown organic soybeans are excluded from the organic label if the farmers are not certified. What this example

illustrates is the institutionalization of organic agriculture. Large-scale farmers, including those located abroad, are benefitting from the certified label, but it provides little utility for small *teikei* farmers.

Nevertheless, the decline of the *teikei* system does not instantly link to the failure of this system. *Teikei* farmers have expressed their overall satisfaction with their jobs. One female *teikei* farmer whose farm is located in a suburb in Tokyo noted that her *teikei* consumer group continued to support her when toxic dioxin pollution occurred in her city and middlemen and local restaurants stopped buying her produce. This episode illustrates how the system works although I am cautious to say that this sort of thing happens all the time. For many farmers, *teikei* is viable, and it still attracts start-up farmers. On the consumer side, despite the decline in membership and the closure of some groups, for long-time members it is absolutely necessary. In my fieldwork, I was told that they could not think of anywhere else they could get food if something happened to their group or farmers. Thus, it seems that much of the problem lies in the ability of the movement to transform society. The conventionalization of organic food, along with young consumers' limited interest in *teikei*, poses a significant problem for the mission of the *teikei* movement at the present time.

### The nuclear power plant accident

The Great Tohoku Earthquake hit north eastern Japan on March 11, 2011 has further exacerbated the problem that the *teikei* movement has faced. The earthquake and tsunami triggered the Fukushima Daiichi nuclear power plant meltdown accident, which forced the evacuation of Fukushima residents from their homes.<sup>7</sup> Radioactive fallout contaminated the surrounding area and severely damaged agriculture in the region. After the accident, the media reported radioactive contamination in beef and milk. The government began a radiation inspection and detected high levels of contamination in some vegetables, causing consumers to avoid agricultural products produced in Fukushima and its surrounding areas.

Although the government had restricted cultivation in the highly contaminated soil and tightened radiation monitoring to prevent highly contaminated products from being marketed, it was not enough to ease consumers' fears. By the summer of 2011, the number of agricultural products sampled that exceeded the government standard gradually declined (Yasutaka 2012). In October 2011,

however, high levels of radiation were found in rice grown in Fukushima prefecture (Aoki 2011). In April 2012, the government set a stricter contamination standard. It also reported that agriculture sector filings for compensation during the first 12 months after the accident were 166.3 billion yen (\$1.4 billion) (Yamashita and Motoshima 2012).

The Fukushima nuclear crisis severely affected organic farmers in the Tohoku and Kanto regions because the contamination affected not only the soils but also manures and fallen leaves used as sources of compost. Organic farmers also stated that since their customers' health consciousness is generally higher than the average consumers, the ratio of people who avoided their products to minimize any radiation risks also was higher than average. My fieldwork confirmed that Tokyo and its suburb-based *teikei* consumer groups had lost membership. One leader of the consumer group said that approximately 20 % of her members quit after the accident. Another leader said that less committed members who had not done farm work were more likely to leave the group than committed members.

The following are responses to the accident and food contamination that the consumer group, *Organic Village* and its partner farmers made. Immediately after the accident, the group communicated with its partner farmers. While *Organic Village* itself is located 220 km southwest of the crippled nuclear site, two of its partner farms were located 130 km from the nuclear site in Tochigi prefecture. After the nuclear accident, both of the organic farmers voluntarily chose not to deliver their produce to their *teikei* customers until they tested the radiation contamination. Meanwhile, the government, which found that radiation exceeded the restriction level in its scant monitoring, banned a shipment of spinach only in Tochigi prefecture (Asahi Newspaper 2011a). One farmer wrote the following in a letter to the group on April 5, 2011:

While three weeks has passed since I've voluntarily decided to stop produce delivery, up till today, the Fukushima plant has been out of control, recklessly releasing radioactivity... Until I am able to make objective decisions [based on reliable radiation inspection results] I will continue to stop shipping my products. That's what I believe is the fundamental spirit of organic farmers, and that is the way in which we can respond to the consumers who trust us.

The other partner farmers wrote the following in the fall of 2011:

According to the inspection result, shitake mushrooms were contaminated with 195 becquerel per

<sup>7</sup> As of May 2013, 150,000 residents were still evacuated from the accident, and nearby communities were shuttered out due to radioactive contamination.



kilogram of cesium-137.<sup>8</sup> The result didn't exceed the government standard of 500 becquerel per kilogram. I wondered that if I informed my customers about this result, whether it was OK to deliver this seasonal, tasty mushroom to them because they consume a very tiny amount, which shouldn't pose any risk, I thought. I contemplated what I was supposed to do based on my role as an organic farmer and the mission of my farm, as well as in light of the *teikei* principles, and I decided not to deliver the mushroom.

Although the loss from not selling their produce was substantial, these farmers voluntarily decided not to sell even though the contaminations were below the restriction levels. During the first months after the accident, radiation inspection was infrequent because of a dearth of instruments and manpower. The costs for repeated inspections also were a burden for small *teikei* farmers. One farmer reported that he and his neighboring organic farmers tried to purchase a radiation inspection instrument so they could measure their products themselves before sending them to a reliable test center. In contrast these *teikei* farmers responses, the government repeatedly emphasized the safety of foods produced in the contaminated area from the beginning, and stated that monitoring efforts screened out tainted foods. It also condemned consumers' hesitance to buy these foods based on unsubstantiated rumors (MAFF 2011). Typically, official statements like these were disseminated through mainstream media without comments by experts (e.g., Asahi Newspaper 2011b). While the Japanese government maintained that there was no confirmed cancer risk at less than 100 mSv exposure,<sup>9</sup> some experts as well as international organizations have taken the position that there is no safe level in radiation (i.e., National Academy of Sciences 2007).

Meanwhile, *Organic Village* held board meetings to discuss actions it should take. The group decided to set the maximum radiation levels they could accept at 8 becquerel per kilogram, based on the recommendations of the German Society for Radiation Protection because it is considered the strictest standard in the world. The next issue was to figure out how to test the radiation contamination and how to finance inspection costs. Although the two farmers mentioned above continued to self-monitor their produce, the group purchased from local farmers and processed food items from different producers. Inspecting these items was not easy, but the group was able to secure cooperation from

a more resourceful food co-op. Unlike large co-ops, this small co-op located 80 km north of Tokyo has practiced *teikei* with local farmers. It bought a radiation inspection instrument immediately after the Fukushima disaster. The following year, it purchased a latest model that allowed detection of 1–2 becquerel per kilogram-level radiation. The co-op generously proposed to the group that it would inspect products with only an annual fee. The group became a member and measured radiation, and all results were reported to its members. In 2012, items found radiation was Japanese mandarin of 4 becquerel per kilogram.

The group also held nuclear power self-study workshops and collected signatures to ban nuclear power plants in Japan. Meanwhile, once its partner farmers started radiation inspections and confirmed the safety of their produce, each of them independently sent their organic products to the victims of the Tohoku earthquake. Since then, the group has collected donations from its members to support their efforts. Although not everything worked perfectly from the beginning, *Organic Village* showed that it could handle radiation risks through cooperation from *teikei* partner farmers and this co-op. In addition, these farmers showed sincere efforts to keep a trusting relationship with *teikei* partners. It appears that mutually supportive networks helped them to get through a most difficult time. What was clear through the accident was that although the movement's emphasis on lifestyle change and normative values spelled out in the *teikei* principles has done little to recruit new supporters, it worked well in showing its supporters how to act and in providing a sense of community among participants.

## Discussion and conclusion

This paper illustrated the historical account of the *teikei* movement in Japan. It emerged as a practical solution to the problem of modern, mechanized and chemical intensive agriculture, and has emphasized alternativeness. The *teikei* system paved the way for the emergence of organic farming by providing a market for farmers. In turn, the system provided consumers with safe, fresh food while also educating them about socially responsible food consumption.

Instead of simply exchanging products on the market, the *teikei* system tried to redefine the social relationship underlying food exchange from an individualistic, instrumental relationship to a collective partnership characterized by "sharing" and "we-ness." In this sense, it is a grassroots movement that aims to restructure society through changing participants' everyday lives. Yet, the *teikei* movement's potential as an agent for social change has gradually minimized as organic food production and consumption increased. This paradox occurred because a lot of organic food is now traded through conventional

<sup>8</sup> The Becquerel or Bq is a unit of radioactive decay equal to one disintegration per second that is used in the International System of Units. (See Health Physics Society at <http://hps.org/publicinformation/radterms/radfact35.html>).

<sup>9</sup> The Sievert or Sv is a unit that measures the effects of ionizing radiation on humans, that is used in the International System of Units. 1 Sv = 1,000 mSv (See Health Physics Society's webpage at <http://hps.org/publicinformation/radterms/>).

retail avenues. Although the *teikei* system tried to decommodify organic food and its exchange, both have since been recommodified as they returned to the conventional market. This aspect of the Japanese case presents a parallel process taking place in the US and elsewhere (i.e., DeLind 2000; Guthman 2004; Jaffee and Howard 2010). In Japanese, the organic certification system has been instrumental for the commodification of “organically grown foods,” which has resulted in their incorporation into the conventional market. A further irony in the Japanese case is the fact that much of the certified organic foods marketed in Japan are now grown outside the nation (MOA 2011).

As a forerunner of the alternative food system, the *teikei* movement has experienced ups and downs over the course of its 40-year history. The 2011 Fukushima nuclear power plant crisis posed further challenges to *teikei* farmers and consumers. The two veteran organic farmers that I depicted, however, demonstrated a strong commitment to the farmers’ ethics spelled out in the *teikei* principles in the midst of a very stressful and uncertain situation. Interestingly, both of the farmers mentioned that they drew from the *teikei* principles when they made difficult decisions. Likewise, the consumer group frequently used the principles as the guidelines for their practices. This suggests the importance of a normative dimension that directs the *teikei* or other versions of alternative food movements. Studies on how values and ethics were developed and renewed and/or shifted during the course of the movement would provide useful information to fully understand these movements.

Moreover, much recent research has discussed the unbalanced nature of the embedded relationship between farmers and consumers in CSAs (Hinrichs 2000; Ostrom 2007). Japanese scholars have made a similar argument. Taniguchi (1989), for example, notes that consumers fundamentally have more power than farmers do. Consequently, the levels of equal partnership and embeddedness could vary in each *teikei* partnership. At the first site, the fact that a substantial number of consumers left the *teikei* groups after the nuclear accident suggests that their power exceeded that of the farmers. However, when considering that there was no scientific consensus about the safety level of the radiation and the fact that children are more susceptible to radiation, it is understandable why some consumers left the group and began buying products grown in less contaminated areas. In light of these situations, I was not able to evaluate this event through the concept of embeddedness. Rather, I would like to extend our attention to this concept. While Mark Granovetter (1985) stated that economic activities are embedded in social relations among people even in contemporary societies from his analysis on individuals, Karl Polanyi (1957) took an institutional view of embeddedness. He argued that although economic institutions in traditional society are embedded in other social institutions, such as religion, politics, and reciprocal

kinship and friendship, economic institutions are disembodied from such social institutions in contemporary society. Likewise, DiMaggio and Zukin (1990) discussed the embeddedness of economic actions in the cognitive, cultural, social, structural, and political spheres. These two arguments along with the Granovetter’s work suggest that the importance of understanding the relationships between economic institutions and culture, politics, and social relations. This article explained how the *teikei* movement was influenced by consumer culture and change in women’s role. It also explained the effects of the organic certification system and the nuclear power plant accident, both of which are products of economic, political, and scientific activities. Given the fact that the *teikei* movement was gradually absorbed by the conventional system through these influences (instead of expanding and replacing it), it should be understood as a dynamic process that has shaped and been shaped by the conventional agrifood system and other forces in society. Thus, recognizing how the alternative food movements interact with contextual factors in broader society would provide valuable information to advance our knowledge about the alternative food movements. In particular, I think that a cross-national historical analysis of the movements would be fruitful to further investigate in what factors promoting or hindering the creation of socially and environmentally sustainable and economically viable agrifood systems.

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