

Food, Culture & Society



An International Journal of Multidisciplinary Research

ISSN: 1552-8014 (Print) 1751-7443 (Online) Journal homepage: https://www.tandfonline.com/loi/rffc20

Sustainable food, ethical consumption and responsible innovation: insights from the slow food and "low carbon food" movements in Taiwan

Yi-Chieh Lin

To cite this article: Yi-Chieh Lin (2020) Sustainable food, ethical consumption and responsible innovation: insights from the slow food and "low carbon food" movements in Taiwan, Food, Culture & Society, 23:2, 155-172, DOI: 10.1080/15528014.2019.1682885

To link to this article: https://doi.org/10.1080/15528014.2019.1682885







Sustainable food, ethical consumption and responsible innovation: insights from the slow food and "low carbon food" movements in Taiwan

Yi-Chieh Lin

Department of Journalism, College of Communication, National Chengchi University, Taipei, Taiwan

ABSTRACT

This paper examines two food initiatives in Taiwan that address broad social concerns that have informed changes in activists' perceptions of food citizenship in relation to globalization. Drawing on participant observation and in-depth interviews with stakeholders in two food movements, this ethnographic study contextualizes the motivations and meaning of "local" from the perspectives of social activists and food businesses in Taiwan. It investigates the strategies by which stakeholders engage consumers with the concept of local food as well as the limitations of that engagement, situating the concept of "local food" within sustainable consumption and local traditions. The findings illuminate how activists leverage global discourses on food movements and adapt them to local settings, blending with the vernaculars of local beliefs and traditional values. The study also discusses the potential and limits of this strategy and the use of new media technology in local food activism.

KEYWORDS

Local food; sustainability; ethical consumption; low-carbon food; slow food; Taiwan; globalization

Introduction

Food movements that explore alternative pathways to safe, local, and socially just food are on the rise in East Asia. These food movements often transcend political barriers and economic borders through the efforts of international and local nongovernmental organizations (NGOs) in order to spread and strengthen the ideas of food democracy, sovereignty, and responsible innovation. Largely borrowing concepts from Europe and North America, these organizations endeavor to create an alternative moral economy for a provisioning system that is increasingly seen as environmentally and socially unsustainable (Sage 2011). For instance, in Japan, the continuous search for national and local identity has been expressed through the rediscovery and promotion of local foods via the slow food movement and the state's Food Education campaign, as shown in Greg De St. Maurice's (2013) ethnography of heirloom vegetable activism in Kyoto. In China, amidst a series of food scares, consumers must address different types of risks in everyday life (Yan 2012). The growth of the middle-class population and their desire for higher-quality food has fostered an environment in which food citizenship and alternative food networks (AFNs) have begun to thrive. Emerging AFNs in China actively employ nascent

community-organizing strategies, building influential domestic and international alliances and using the Internet to express dissent (Schumilas and Scott 2016). Other studies suggest that environmental groups and Taiwanese-based private enterprises are key players that are underrepresented in the study of environmentalism and ethical consumption (Klein 2009).

A previous study on the Taiwanese government's promotion of the low-carbon lifestyle showed that cultural and resource factors – such as capital, early experiences, and social networks – are important for consumer decisions yet are often neglected in policy decisions (Wang 2011). Women and people older than fifty are more willing to consume low-carbon food because they have purchasing power and identify with the values of environmentalism (Wang, Tsai, and Liao 2013). Most prior studies have focused on consumer decision-making but not necessarily on the organizing of food activism. A closer look at the literature on food activism in Taiwan reveals a number of gaps and shortcomings. The literature has not yet discussed how consumer activists view and draw upon local and global discourses of alternative food to support their vision of food democracy. Moreover, the views of ethnic minorities and other disadvantaged groups are underrepresented in previous studies. A more in-depth understanding of local food activism in Taiwan could shed light on the international and domestic transmission of food knowledge that is constantly negotiated, translated, and combined through the collaborated efforts of activists.

In this paper, I examine the efforts of food and environmental activists in promoting the consumption of local food in Taiwan, with attention to the political, cultural, and economic contexts that situate such advocacy. In particular, I endeavor to understand how food activists view and negotiate the complexities of local food systems and how such negotiation affects the adoption and endurance of "sustainable" culinary practices. This research agenda entails answering the following questions: How do activists perceive the "local" and diagnose the conventional and neoliberalized industrial food system? What are their motivations, and what role do they envision for participants in the sustainable food movement? How do they draw upon and depend on both local and global discourses of alternative food to build a movement that can work best in Taiwan?

To answer these questions, I focus on two cases of local food movements in Taiwan. One is the Slow Food Movement (henceforth SFM), which originated in Italy and was introduced in Taiwan in 2005. The other is the Low-Carbon Food Movement (henceforth LCFM), a grassroots initiative that began in 2011 and is supported by the state and several nongovernmental organizations in its efforts to promote local food for environmental protection. My findings suggest that both movements have the potential to change Taiwan's food system, with the LCFM transforming the production side while the SFM potentially transforms the cultural taste of local consumers. Both movements have provided venues for public discussion of food localization and have the potential to change the social hierarchy of food in Taiwan, elevating the status of ethnic cuisines. I argue, however, that activists and enterprises who use strategies to advance the local food movement in Taiwan mostly leverage transnational and global symbols and representations, relying on the movement of ideas of what food localism should be and on the reputation of international (mostly Western-trained or Western-inspired) ambassadors and models. However, they also endeavor to blend global discourses with local beliefs and practices, resulting in

hybrid conceptions of the "local" and a shifting of public interest toward a return to domestic foods and ethical consumption in Taiwan.

The findings in this paper are drawn from semistructured interviews and participant observations conducted in four locations where local food projects have had an active presence: Taipei, Taichung, Kaohsiung, and Taitung. Taipei has a rapidly growing eatlocal movement and has cultivated many NGOs concerned with food issues. Taichung is home to Taiwan's first organic farmers' market and is an active scene for the social enterprise of food journalism; it is also home to Taiwan's oldest college specializing in agricultural sciences. Kaohsiung is a major food production site, accounting for 2-8 percent (depending on the category) of total food production in Taiwan. Since 2014, The Bureau of Agriculture of Koahsiung City has pioneered farmer education about "soft power," i.e., communicating with consumers as well as designing and branding strategies for local and overseas markets. Taitung County has the lowest income per capita in Taiwan, but it is also the most culturally diverse region in Taiwan and is home to six different indigenous groups (see Figure 1). Between February 2014 and June 2017, I interviewed a total of 50 individuals from multiple sectors involved in the food system, all of whom share a similar interest in promoting local food initiatives. These participants included representatives of the state (employees of the municipal or central government who work in positions that promote local food), the market (farmers, entrepreneurs, and food exposition hosts), and civil society (volunteers, employees of nonprofit organizations, food journalists, and editors). Interviews lasted between 30 minutes and 2 hours. I also conducted participant observation by observing local food events, NGO meetings, civic protests, and farmers' markets. Finally, I gathered and analyzed secondary data, which included government and NGO reports and media releases on the expanding alternative foodscape of Taiwan, with special attention to rhetorical strategies in food activism. Pseudonyms are used throughout the paper to protect the privacy of my informants.

In the next section, I unpack the theoretical framework I use in my analysis. This section is followed by a brief background on food and agriculture in Taiwan. I then

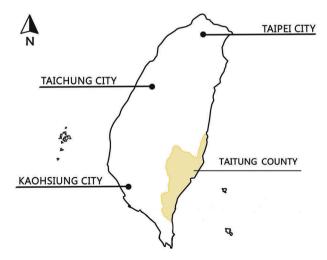


Figure 1. Map of Taiwan.

provide a set of empirically grounded insights to examine local food movements in Taiwan. The paper concludes with the trajectory of local food movements in Taiwan and how it differs from that in the West.

Literature review

The globalization of food and agriculture has dire impacts on economic systems, human health, cultural diversity, and environmental sustainability, among other issues (De St. Maurice 2014; Smith et al. 2014). In particular, there is a call to examine the links between these impacts and not only food production but also consumption (Hallström, Carlsson-Kanyama, and Börjesson 2015; Wilk 2017). Given contemporary concerns about the overall health of the global food system, the "local" has emerged as a key concept for strengthening sustainability, community, and access to affordable and fresh foods. Quite a few case studies around the world point to the promise of food localism in fostering, for example, vibrant civic engagement (Lynch and Giles 2013; Cohen 2014; Lewis 2015), opportunities for social entrepreneurship, and food education to improve well-being (Julier and Gillespie 2012; Chollett 2014; Tørslev, Nørredam, and Vitus 2017). A case in point is Cristina Grasseni's extensive work (2014) on Italian solidarity purchase groups - an example of a local food movement - which highlights the role of local food activism and grassroots innovations for sustainable development. Collective food purchasing networks in Italy serve as a good case study for those interested in promoting responsible innovation, an approach to seeing innovative development as societally desirable, ethically justifiable, and transparent (Grasseni and Hankins 2014). Today, "local food" has expanded to encompass "a wide range of permutations under the headings of alternative food initiatives, alternative agro-food networks and systems, community food security, civic and democratic agriculture, post-productivism, alternative or shortened food chains, and the quality turn" Feagon (2007, 24).

A number of studies, however, have pointed to issues with food localism. As a movement, it still faces challenges with regard to delegation, leadership, conflict management, and inequalities (See Cohen 2014; Minkoff-Zern 2017). Others, however, refer to fundamental issues that seem to contradict the ostensibly transformative aims of the movement. For example, a number of scholars criticize the movement for continuing to manifest the same problems as the globalized industrial agri-food system, such as structural inequalities, unsustainable agricultural practices, unfair labor practices, and the unequal distribution of food (Thompson 2017; Kennedy, Parkins, and Johnston 2018). Feagan (2007), for example, notes that the process of relocalization (as in the concept of *terroir*) demonstrates the commodification of place via historical, cultural or economic values and may effectively contribute to regional rural development only at the expense of other rural areas. Furthermore, the local food movement, particularly in North America, seems to rely too heavily on individual consumption as the dominant pathway for achieving eco-social change.

Another aspect of the literature fundamentally questions the binary of the "local" and the "global" and the idea that the former compromises the latter in the process of globalization. Food scholars who study globalization have debunked the claim that globalization is a one-way homogenization process in which commodities and ideas flow from the "West" to the "East" (e.g., Wilk 1999; Bestor 2004; Watson and Caldwell

2005; Phillips 2006; Nutzenadel and Trentmann 2008). The cultural elements of the "global" or the "West" can be domesticated and reinvented when they reach the global (see, for example, Caldwell 2004 on McDonalds in Russia) or when ideas from the "East" become symbolic of the global (see, for example, Jung 2012; Grosglik and Ram 2013 on representations of Chinese food).

In much of the US and European literature on food localism, as well as in activist narratives, the global becomes the universal logic of capitalism, while localism serves as the space or context where ethical norms and values can flourish (giving rise to the framing of local food as "alternative" and as a solution to the ills of globalized food, as I discussed above). The literature has begun to question the concept of the "local" binary. DuPuis and Goodman (2005), for example, argue that localization is not necessarily incompatible with globalization, and it may even "be open to deployment in a neoliberal 'glocal' scale" (p. 365). Claire Hinrichs (2003) further problematizes the social construction of "local" by arguing that the emergence of the Internet also complicates the spatial relations of the "local." Because local food may be marketed to customers worldwide, the appeal of local and regional, terroir products is marketed beyond strictly local markets. Therefore, the spatial content of the "local" in particular contexts deserves more critical examination that takes into account "how scale is socially constructed and how social and environmental relations are spatialized" (Hinrichs 2003, 43).

The context of localism in relation to the Internet is a burgeoning interest in the literature. Several scholars have suggested that the rise of the Internet, as an important facet of globalization, has created new possibilities for food activists to promote their values and ideologies. For instance, while acknowledging the clear influences of popular and alternative media sources, Long (2011) investigates the ways in which consumers engage with and reciprocate the dominant narrative of consumer food culture and finds that the rise of the Internet has increased reliance on the exchange of views and opinions from trusted networks, thus creating a "conversational marketplace." Urban foodsharing - collective and collaborative practices around food including shared growing, cooking and other ways of facilitating the redistribution of food - is now mediated by information and communication technologies, as shown in a study of a scoping database (Davies and Legg 2018). Indeed, food localism (and food activism in general) has increasingly depended on the forces of globalization.

While food localism is increasingly intertwined with globalization, our understanding of how the "local" manifests in a certain place is, of course, not homogeneous. Ultimately, how we understand the local should still be contingent on the social, ecological, and political circumstances of a place. Moreover, the dynamics of food localism are also contingent on the histories of local-global dynamics. Many scholars who have explored food localism have also paid attention to how these movements interact with histories of colonialism, trade, politics, migration, and other topics in diverse geographical locations (Assmann 2010; Brown 2014; Lewis and Huber 2015; Hobart 2016; Alkon and Vang 2016; Brower 2016; Orlando 2011).

Scholars of local food systems remain divided on the possibilities and limitations of local food movements with regard to influencing social change. This case study of Taiwan contributes to this discussion by showing both the possibilities and limitations of food localism as a movement that draws from both "local" and "global" cultural elements. The study also aims to contribute to our understanding of how the local food movement manifests in the Asian context, given that the literature is dominated by scholarship from the West. This study should therefore be a helpful comparative not only to local food movements in Asia but also to the manifestations of those movements in different contexts, cultures, and languages throughout the world.

The social context of food and agriculture in Taiwan

Taiwan's unique social context is useful in understanding how the local food movement in the country (and Asia in general) interacts with, responds to, and reinforces multiculturalism, forces of globalization, and flows of food knowledge and agricultural technology. After World War II, Taiwan quickly transformed - in just a few decades - from a "model colony" and exporter of sugar and rice under Japanese rule to a strong information technology economy and a democratic society. Moreover, Taiwan has played a leading role in food and agricultural research while exporting innovations in agricultural knowledge and technology to neighboring Asian countries and beyond. On the consumption side, the foreign media voted Taiwan the best gourmet destination in the world because it offers a combination of the cuisines of Hoklo, Hakka and other Chinese communities, dishes from 14 aboriginal communities, Japanese-style cooking, and seemingly endless street-side snacking choices (CNN 2015). However, a previous study shows that a social hierarchy of ethnic cuisines has been reinforced (Chen 2011). As Taiwan faces pressure for reunification with China, an increasingly popular independence movement on the island has used ethnic cuisines to promote a national identity since the early 2000s.

Although the present imaginary of Taiwan conjures images of an abundance of fresh seafood and a variety of affordable food delicacies in night markets, Taiwan is facing dramatic changes in its food and foodways. There is growing food insecurity due to a number of interacting factors, the most salient of which are the changing climate, declining fallow land, and increasing reliance on imports. Taiwan's food self-sufficiency rate, at 32 percent based on calories, is considered low by some activists (Ministry of Agriculture of Taiwan 2017). Moreover, food influences from outside have contributed to these changes as well. The Japanese colonial legacy has made Japanese food a popular choice, while American aid in the 1960s introduced flour-based foodstuffs and Westernized breakfast habits into Taiwan. The rise of the middle class in the last few decades has fostered new consumerist trends that aspire to fine dining, while the consumption of imported goods has become a symbol of status and cultural taste.

A series of transnational food safety issues that have occurred in the past decade in Taiwan and China instigated fear among local consumers in Taiwan and in other food-importing Asian countries. Amidst the food safety crises, the local media have become very active in constructing discourses on healthy diets in relation to food sovereignty, naturalism, low-carbon food, organic agriculture, and animal welfare (Chiang and Chiu 2015). Various social actors, such as scholars, environmental organizations, and food journalists, have advocated for an alternative provisioning system and "more civic participation" in rural development in Taiwan (Lii 2011, 451). In conjunction with this trend, Shu-min Huang (2013) found that the identities of Taiwanese organic farmers are strongly connected to utopian idealism about the occupation, the land, and regeneration projects in rural villages.

The fact that Taiwan leads Asia in freedom of the press (Reporters without Borders, 2018) has not only fostered an active, mediated public sphere but also made Taiwan a proactive advocate of private ethical consumption and citizens' engagement in local food projects. This research aims to improve our understanding of how activists draw from "global" elements as a strategy to advance food movements, how they create a collective space to reinterpret and reimagine citizenship in Taiwan, and how their imaginations interact with their understanding of the conditions for the emergence and development of countermovements in the globalized industrial agri-food regime.

Local food movements in Taiwan

In this section, I examine the initiation and development of local food movements as interrelated food system initiatives in Taiwan in order to shed light on the politics of food localism. The following sections discuss the emergence of two local food movements - the SFM and the LCFM – with particular emphasis on the history of how they were established, the motivations of their activists, and the strategies employed in advancing them.

Creating local food movements

Taiwan is not new to some of the principles of food localism. For instance, the notion of relations of proximity has existed in the form of producer or consumer cooperatives and farmers' associations in many regions in the country. Moreover, open-air farmers' markets have existed for a long time, but these sites are mostly operated by middlepersons, and they face decline and fierce competition from supermarkets. As these food institutions that already promote food localism are confronting competition amidst the growing globalized and industrialized agri-food complex in Taiwan, new waves of local food movements are emerging.

The two established local food movements in Taiwan are the SFM and the LCFM. The SFM originated in Italy and is rooted in the notion of consumer rights and the belief that citizenship is embedded in ethical consumption practices involving "resistance against both globalization and the hegemony of large processed food conglomerates" (Chrzan 2004). In Taiwan, the idea of Slow Food was introduced by intellectuals who had studied abroad. The SFM has only one organized chapter in Taiwan, with low visibility in the media. When the word "slow food" appears in public discourse, it is mostly used as a label by Taiwan's local government to sell local culture. Local food campaigns related to slow food, such as the "2018 Hakka Slow Food Season Campaign" and the "Slow Food Festival" in Tai-Tung, are burgeoning. In other words, "slow food" is a catch-all term in the advertising of local food, and it has no connection to the SFM in Italy. For instance, in 2019, a local government in Miaoli established a "slow food" pavilion to showcase local ingredients and serve snacks to tourists.

The LCFM, on the other hand, is a grassroots initiative supported by both the state and several nongovernmental organizations to promote local food for environmental protection purposes. The "Low-Carbon Food program" (Di tan yin shi yun dong, literally, "to reduce food mileage movement") is a representative case study of public-private collaboration initiatives.² The food mile movement in Taiwan has been incorporated into the LCFM. In 2011, the Ministry of Environment of Taiwan published a manual on the lowcarbon diet and invited NGOs to apply for funding to execute their projects. Since then, several local governments (such as Taoyuan, Taichung and Tainan) have started certifying "low-carbon, environmentally friendly restaurants." Restaurateurs' ability to follow a set of principles in cooking and in the selection of food sources and utensils were also identified as major factors that should be considered (Hu et al. 2013) when analyzing efforts to reduce the carbon footprints of food supply chains. Most of the activities hosted directly by municipal officers take place in schools or community centers. The target audiences are families and students who are encouraged to eat more locally sourced food and consume less meat. In rural regions, low-carbon food policy refers to the incorporation of organic agriculture into school gardens and meal plans. The scope of NGO projects is broad, including "low-carbon food" film festivals, cooking competitions, and agricultural community empowerment projects. Farmers' markets in Taiwan also self-identify as low-carbon environmental education sites.

It is apparent that the government has a role to play in the development of local food systems in Taiwan, especially in the LCFM. Apart from setting guidelines and incentive systems, the state also supports agricultural businesses and young, individual farmers and invests heavily in innovations in agricultural science and technology. The state has promoted the production of non-genetically modified organisms and organic food and has also promoted and created online traceability, certification, market price systems, and direct markets since 2013. Moreover, it supports new industries, such as local wineries, to sustain rural tourism.

Much of the local food movement, however, is driven from the ground up. Along with local governments, individuals, mostly foreign-educated elites, have been essential in establishing local food initiatives. Intellectuals (e.g., food writers, journalists) and finedining chefs are particularly familiar with and interested in the SFM and related concepts (e.g., terroir). These individuals also play a leading role in educating consumers about the abundance and quality of local ingredients, and they make references to LCFM. For example, in 2004, Qingsong Lai, who holds a law degree from a Japanese university, started the first community-supported agriculture (CSA) model in Yilan County of Taiwan. Borrowing the CSA model that he saw in Japan, Lai quickly recruited 1,500 urban supporters and published a book on his experiences. Lai's book tours on CSA were successful in appealing to fellow youth who long for an idyllic rural lifestyle, and he quickly became a model figure for the younger generation of farmers. Another case in point is US-trained academic Shih-Jui Tung, who initiated the first organic farmers' market in 2007 based on the model of farmers' markets he saw in the US. In less than a decade, the number of farmers' markets serving alternative agro-food networks had grown to 98 locations throughout Taiwan (Tung 2007, 2009; Tsai 2016). Facing keen competition from wholesale and retail markets because access to fresh food is relatively much easier in Taiwan than in the West, Tung and others advised the farmers in the farmer's markets to specialize in niche goods (e.g., organic tea, coffee, soymilk, rare vegetables or fruits). Tung's vision is to make farmers' markets in Taiwan a place for local communities to foster ties with farmers, to educate consumers about low-carbon food, and to help farmers grow. Therefore, many initiatives to equip farmers with new tools to build relations with their consumers began to thrive. In these initiatives, farmers learn about how to write blog posts for the public or how to host tours on environmental education at their farms.

Although the local food movement has borrowed many ideas from the West, these ideas are domesticated and blended with local traditions and beliefs, making it easier to disseminate foreign ideas among Taiwanese communities in and beyond Taiwan. It should be noted that there is a strong religious influence on the local food movement in Taiwan. Many organic farmers believe that organic agriculture conforms to the doctrines of the Buddhist philosophy of compassion, not killing animals and maintaining a harmonious relationship between humans and the environment. This set of beliefs has also made it easier to sell organic food to followers of Buddhism. For instance, Taiwan's largest chain retail stores for local organic foodstuffs are operated by a Buddhist sect. The Buddhist organic stores sell only organic vegan food and have expanded to 131 retail outlets in Taiwan and 31 overseas outlets serving customers in North America, Singapore, Malaysia, Mainland China and Australia. This is an example of how sustainable food ideas are imported and blended with local beliefs and how new hybrid concepts of sustainable food are in turn exported and globalized through networks with Taiwanese Buddhist beliefs.

Thus far, the combined effects of state-led support and bottom-up initiatives in promoting food locavorism point to promising signs. In the past, distributors have treated information on food growers as a trade secret. To regain the trust of consumers, many retailers have begun to disclose the names of farmers and their origins when advertising food products. Currently, information transparency, personalized food relations, and shorter food circuits are becoming widely accepted in Taiwan. This shift indicates that food growers have acquired the symbolic capital of quality and morality, while consumers now see themselves as participating in a moral discourse about sustaining the livelihood of small farmers. In the next section, I detail activists' motivations and perceptions of the local food movements and how they generally make meaning of "local food" in relation to their values and beliefs. I also provide a profile of who the activists are.

Activists and entrepreneurs and their motivations

When I asked how and why my informants became involved in local food movements, they discussed a range of issues, such as appropriate agricultural methods, environmental degradation, the health of farmers, food sovereignty, concerns about culinary authenticity, food heritage, and food safety. Almost all of my informants expressed suspicion of transnational agri-food conglomerates and were wary of the health effects of conventional food production and consumption practices on themselves and their families. One example is Meng-Ching, a 44-year-old housewife and an active member of an NGO supporting the LCFM. While sharing her motivation to participate in food protests and community-supported activism, she showed me a picture of her two school-age sons' feet, which were dirty from working and playing in rice fields in a CSA during the weekend. She said,

My husband and I used to order take-out food as the family dinner for several years before and even after I left my former job as a community developer and became a housewife. One day I realized my sons' taste favored the strong flavor of food with a lot of additives, and I started to make up my mind to learn how to cook. Then, I joined a book club on slow food and started lecturing about slow food in different kindergartens and elementary schools

Consumers' health concerns go beyond the self and the nuclear family. Meng-Ching, for example, joined a purchase group affiliated with an environmental organization that supports an alternative food system. Although she originally made this decision due to concerns about her family's health, she soon discovered the broader politics around the social and environmental aspects of food. She participated in courses and organized book clubs with other members to study what "slow food" means. She also experimented with ways to incorporate children's food education into schools, teaching children as a volunteer at libraries and schools and even occasionally joining street demonstrations to support local farmers. Because the topic of local food is so popular, Meng-Ching even has a new part-time job as an adjunct lecturer at a local college, where she teaches courses on Food and Society.

A general concern for the welfare of farmers appears to be an important part of activists' motivations. Another activist and CSA participant, for example, expressed her concerns about the health of farmers. She shared, "I still remember during dinner time in my childhood, my mother and the neighbors would exchange information about which neighbor was poisoned by a chemical pesticide and sent to the hospital." Activists would also mention the need to protect the livelihoods of farmers and ensure their food sovereignty. Thus, they are always cautious about new agricultural technologies. For example, some of the grassroots activists I conversed with were concerned that the development of agricultural biotechnology would result in domination by multinational agrochemical companies, leading to the marginalization of small-scale local farmers and the degradation of local environments. In one meeting I observed, an activist stated that agricultural biotechnology is "unethical, unnatural and uncultural" because genetically modified organism (GMO) technology is a strategy devised by transnational corporations to seek new domains of capital accumulation in a neoliberal global economy. GMO technology clashes with the tradition of small-scale farming in Chinese society as well as with local values and cultural beliefs that nature should be altered as little possible. These attitudes are reminiscent of Heller's (2007) observation in France, where small farmers label GMO food as "uncultural," associating it with techno-science and industryproduced food.

Small farmers and activists view food safety issues as an opportunity to provide an alternative vision of the foodscape. The LCFM provides them with a chance to discuss the potential to safeguard cultural heritage and strengthen the cultural identity of producers. My interviews with informants about the limitations of conventional systems are suggestive of a "thick democratic imagination." Thick democratic imagination refers to a scenario in which "a public is confronted with a challenge and responds by discussing the problem, imagining myriad possible solutions, and identifying a range of tactics to advance solutions" (Perrin 2006).

To distinguish their local food movement from food globalization, my informants emphasized their role in preserving local food traditions through educational events. For young farmers from indigenous communities, the local food movement means reclaiming the cultural identity and pride associated with local food. The activists are engaged in preserving indigenous seeds and support actions against food made with GMOs. Nostalgia for "the good old days" was often mentioned in dialogues with my informants, as if the purity of food had been compromised by the advances of food science, technology, and the homogenization of foodways due to globalization.

It should be noted that many of the local food movement activists I interviewed have a distinctly similar background. They are mostly middle-class with high levels of education, and many are women. They share similar identities as the Japanese housewives in Robin LeBlanc's ethnography Bicycle Citizens (1999), except that my informants rode scooters and communicated with one another through social media. Their belief systems justify their motivations and decisions to participate in the local food movement. They believe that their ethical consumption of food is a means of fulfilling ecofeminist ideals and of actualizing the Chinese philosophy of human-nature relations.³ From the Chinese perspective, culture and nature are not a set of binary oppositions. Instead, they form one continuous process of development that entails nurturing the material and semiotic worlds.

While two of the main motivations for supporting LCFM and SFM are health and environment, the interviews show that Taiwan's local food activists and entrepreneurs are also motivated by strong doubts about the future brought about by the effects of food globalization. In some cases, the line is blurred between food activists and entrepreneurs, as enterprise owners and culinary professionals are also involved in activism. In the following section, I analyze the strategies that food businesses and activists employ to advance local food movements in Taiwan; many of these strategies also rely on the forces of globalization.

Advancing the movement

Most of the locavore chefs recognize a threshold price that consumers are willing to pay, but they also use their creativity to highlight the incomparable flavor of locally sourced ingredients. For the restaurateurs, branding local food as crafty and handmade meets consumers' increasing demands for small quantities and information transparency with regard to ingredients and food preparation. Some of the restaurants also host cooking workshops to enhance consumers' appreciation of locally sourced ingredients. Through word of mouth, most local chefs retain a group of loyal customers who identify with their attitudes and values.

Food businesses have taken advantage of online platforms to sell local products while advancing local food advocacy. Virtual stores, for example, have become popular channels through which to sell the harvests of small farmers, and social media platforms make it convenient to take orders and maintain producer-consumer relations. After a series of food crises in 2014, many virtual food hubs claimed that their sales of locally produced food doubled in the first half of 2015 compared with 2014 (Apple Daily 2015).

The local food activists I interviewed heavily emphasized consumer education and ethical consumption as essential for change. These activists use diverse strategies to engage consumers both online and offline and take advantage of their connections with journalists, legislators, university professors, and government officials. Many of them recognize the importance of media, in particular social media. Region- or subjectbased food media have burgeoned in the past decade, such as Eastern-Taiwan Food Communications and Rice Communications. Food purchasing groups also have their own magazines, social network sites, and newsletters. Media and NGO activists are dedicated to changing the stereotypes of agriculture and food education, and they attempt to appeal to citizens/consumers with better infographic designs, games, and even cartoon illustrations. The appearance of social media sites also reduces the public relations (PR) costs

that NGOs face in attempting to spread their messages. Word-of-mouth and personal communications with different segments of the population are seen as more effective and cost efficient than mass media outlets. Nancy, a 45-year-old food activist and former department store PR staff member, said,

When I first participated in the NGO sector, I couldn't get used to it because I thought that the best way was to spend a huge budget on public relations and advertising. But with time, I realized that the agenda-setting of NGOs is different from commercial sectors. We need to find the midway between commercial marketing and NGO marketing. People need time to digest and understand the agenda of NGOs, which often involves in-depth knowledge and experience. The depth and quality are more important than the quantity of NGO events.

The introduction of social networking sites to Taiwan in the past decade has enabled activists, food businesses, and journalists to establish new platforms to extend their reach online. In the experience of participants, the depth of media content, visualization of data, and word-of-mouth reputation are all important factors in the success of the campaigns. In some cases, the adoption of social network sites and digital maps has effectively coordinated different NGOs and community colleges. For urban citizens, social networking sites are the most efficient way to disseminate information, whereas in rural areas, newspapers or other printed media still play an important role in campaigns. Social media have made it easier to recruit volunteers and maintain fan pages.

Interestingly, the strategies employed in advancing the local food movement have relied on transnational forces and networks. As I mentioned earlier, quite a few initiatives have been founded by individuals who had training or formed some connection with food traditions abroad. After all, the local food movements in Taiwan were inspired by movements elsewhere, e.g., the SLM originated in Italy, while CSA communities in central Taiwan were modeled after the Shumei Natural Agriculture system in Japan. The movements have also relied on reputations that have international currency. Many of the culinary professionals involved in advancing the movement were invited to do so primarily because of their "world-class" reputation or their training in the West. For instance, a Taiwanese winner of a world-class pastry competition in France, Bao-Chun Wu, shared his recipes with small farmers and helped them develop their own brands of agricultural products using language that creates a personal touch, thereby creating a noticeably "authentic" feel. Wu's endeavor has successfully assisted many farmers in finding a niche market. Food activists have also leveraged transnational representations in their promotion of local food in Taiwan. In 2013, for example, Nancy (the activist I described above) traveled to the World Exposition in Milan, where she took pictures and wrote stories about LCFM and SFM in Europe, shared them on social media, and turned them into a book. She invited chefs specializing in French cuisine to invent new dishes using local ingredients in Kaohsiung and shared the recipes on the Internet as her food localizing project.

The introduction of global culinary practices has also contributed to the flourishing of the local. For example, the Michelin Guide, which was introduced in Taiwan in 2018, has encouraged local chefs to fuse foreign-style cooking and local ingredients and reverse the stereotyping of local ingredients as "flavorless" or "cheap." Taiwan became the fifth market in Asia to be covered by the storied French guide, which only recently began devoting attention to Asia. This phenomenon indicates that Taiwan's local ingredients

and food culture are on par with those of other culinary destinations across North America, Europe, and Asia.

The involvement of the culinary profession in the movement has also encouraged the marketing of the local. Currently, local gastronomy is deemed potentially profitable with regard to boosting sales to the overseas market and increasing the traffic of international tourists to Taiwan. Meiyum, who studied at the University of Gastronomic Sciences of Italy and is now a founder and organizer of a food education initiative, has a vision of applying the concept of terroir she learned in Europe as a possible national branding niche for Taiwan's food industry. She explained,

Terroir, season, and species should be more clearly spelled out so that the food culture of Taiwan can become more visible. Our customs and skills of making marinated food or brewing could be useful in reducing unnecessary food waste. Look at the case of Korea. The Koreans discuss kimchi as their national identity and market it to the whole world! We should train foreign chefs to learn Taiwanese cuisines. In fact, many chefs have looked to Taiwanese food for inspiration, such as André Chiang. This is an opportunity to market our food overseas.

The intermingling of the global with the local has blurred the lines between the two. The culinary elements that may now be considered "local" in Taiwan, if viewed from a historical perspective, may have an extralocal past. For example, the pastry chef discussed above, Bao-Chu Wu, promotes wheat in his local food advocacy. Even if wheat is now locally sourced in Taiwan, it was only during the Japanese occupation that such a crop was introduced. It became popularized during the postwar period as a result of American aid, significantly changing the diets of Taiwanese consumers over the last several decades.

Discussion and conclusion

As shown in the cases in the previous sections, local food movements in Taiwan emerged in the context of a global/transnational discourse of sustainable and healthy food, and these movements are often motivated by integrating local religion/belief and ecofeminist concerns. In other words, the case studies in this article illustrate the mixing of conceptions of the "local" in the Asian context. Local food activists and enterprises who use strategies to advance the local food movement in Taiwan leverage transnational and global symbols and representations of food localisms, which they mix with local cultural values to shift public interest toward a return to domestic foods and ethical consumption in Taiwan.

My findings also show that LCFM has transformed the production side, while SFM is potentially changing the cultural tastes of local consumers by commodifying the idea of "slow food" and terroir. Meanwhile, both SLM and LCFM have provided venues for democratic discussion of the localization of the food system and have the political potential to change the social hierarchy of food in Taiwan by elevating the status of ethnic cuisines. For example, in a documentary series "Ten Seeds from Ten Aboriginal Tribes," broadcast on the Aboriginal Television Station from 2015 to 2016, indigenous food traditions - millet, sorghum, Formosa lamb quarters, red glutinous rice, black rice, pigeon beans, green bamboo shoots, brown rice bran, sweet potatoes, and wild vegetables - are shown to be gaining new status as healthy foods or superfoods and winning more favor from urban consumers. As a result, this new trend has increased job opportunities in indigenous communities and sustained food-related legends and rituals, sometimes supported by government subsidies in the name of "low-carbon, sustainable food" initiatives.

Although there are uncertainties and ambiguities in the future trajectory of the globalization of healthy and sustainable food, the ethnographic data indicate that the interactions of globalization and localization are more complex than previously thought. This article's findings have shown that ideas and values associated with sustainable and healthy food are domesticated, adapted, localized and hybridized in creative ways to adapt to local contexts in Taiwan. While ideas and knowledge about collective purchasing groups, CSA, low-carbon food or slow food transcend national and cultural boundaries, they are blended with local religions and traditional values. In this process, "local food" is rebranded as a new lifestyle commodity and even packaged for sale to overseas Taiwanese communities, Local food has become both a solution for responsible innovation (Grasseni 2014) and a commodity of terroir (Hinrichs 2003; Feagon 2007), but the distance of the food chain is not necessarily shortened. This article also briefly touches on the issue of how new media technology has created new opportunities for entrepreneurs and activists and fueled the transformation of everyday discourse and practices, fostering new connections and opportunities among international and local activists. Through new media, activists and entrepreneurs can not only build local and transnational networks but also leverage the cosmopolitanism of consumers.

Local food activism is not without limitations. First, leveraging the global discourses on sustainable and healthy food movements could also lead to tolerating social inequality at the local level. Both SFM and LCFM were initiated by people from the middle class, and lower-class consumers residing in urban areas or college students who have less purchasing power are often excluded from these movements. Second, more full-scale studies on lifecycle assessments of the local food system and the contingencies of its advantages are needed. Local food movements in Taiwan focus on "scale" without discussing whether the practices of all small farmers are environmentally sustainable. There are young, educated farmers who are open to experimentation and the certification of sustainable agriculture, but there are other small farmers who are reluctant to participate in sustainable agriculture. Third, the movements often emphasize "home cooking" instead of "dining out" as a solution to the problems of the food system, but too much focus on this solution may reinforce preexisting gender inequalities at the household level.

Notes

- 1. To explore the role of alternative food in rural development, this study employs the three categories of alternative or short food supply chains (SFSCs) as defined by Henk Renting, Terry Marsden and Jo Banks (2003): organic farming, quality production, and direct selling. There are also three modes of alternative food sales: *face-to-face interaction, relations of proximity*, and *extended relations*.
- 2. The concept of "food miles" originated in the United Kingdom in the 1990s to refer to "the distance that food travels from its production to consumption" (Sustainable Development Committee (U.K.) 2011).
- 3. Ecofeminism refers to a gender propensity that aligns with nurturance, care, and reciprocity to ensure "the survival and robustness of all life systems on the planet" (Mallory 2013).



Acknowledgments

The author is grateful for the comments received from the workshop "Transecting 'Healthy' and 'Sustainable' Food in the Asia Pacific" hosted by Yale-NUS College and the Asia Research Institute of the National University of Singapore.

Disclosure statement

No potential conflict of interest was reported by the author.

Funding

This work was supported by the Ministry of Science and Technology, Taiwan [MOST103-2511-S-004-010].

Notes on contributor

Yi-Chieh Lin received a Ph.D. in Anthropology from Harvard University and teaches in the College of Communication at National Chengchi University, Taipei, Taiwan. Her research interests include: new media and social change, science, health and society, food and environment, and transmedia storytelling. Her recent publications include: "Examining the Role of Cultural Intermediaries of Exotic Food Brands: A Case Study on Independent French Dessert Artisans in Taipei," Journal of Communication Research and Practice (2019); "Exhibiting Food Culture and Identity: Authenticity and Vernacular Postmodernism," Taiwan Journal of Anthropology (2018).

ORCID

Yi-Chieh Lin http://orcid.org/0000-0002-8520-2431

References

Alkon, A. H., and D. Vang. 2016. "The Stockton Farmers' Market: Racialization and Sustainable Food Systems." Food, Culture and Society 19 (2): 389-411. doi:10.1080/15528014.2016.1178552.

Apple Daily. 2015 "Demand for Food Safety, Online Sales from Production Site Surges." [Qiu shi an wang gou sheng xian feng chan di zhi song], Apple Daily. August 12. https://tw.appledaily. com/lifestyle/daily/20150812/36716448

Assmann, S. 2010. "Food Action Nippon and Slow Food Japan: The Role of Two Citizen Movements in the Rediscovery of Local Foodways." In Globalization, Food and Social Identities in the Asia Pacific Region, edited by J. Farrer, Tokyo: Sophia University Institute of Comparative Culture. http://icc.fla.sophia.ac.jp/global%20food%20papers/html/assmann.html

Bestor, T. C. 2004. Tsukiji: The Fish Market at the Center of the World. Berkeley: University of California Press.

Brower, A. 2016. "From the Sugar Oligarchy to the Agrochemical Oligopoly: Situating Monsanto and Gang's Occupation of Hawai'I." Food, Culture and Society 19 (3): 587-614. doi:10.1080/ 15528014.2016.1208342.

Brown, M. 2014. Everyday Moral Economies: Food, Politics and Scale in Cuba. Malden, MA: Wiley Blackwell.

Caldwell, M. 2004. "Domesticating the French Fry: McDonald's and Consumerism in Moscow." Journal of Consumer Culture 4 (1): 5-26. doi:10.1177/1469540504040902.

- Chen, Y. 2011. "Ethnic Politics in the Framing of National Cuisine: State Banquets and the Proliferation of Ethnic Cuisines in Taiwan." Food, Culture and Society: an International 315-333. Journal of Multidisciplinary Research 14 (3): doi:10.2752/ 175174411X12961586033483.
- Chiang, T. J., and Y.-C. Chiu. 2015. "The Media Construction of Healthy Diet: From Nutrition, Safety to Environmental Sustainability." National Taiwan University Journal of Communication and Development 32: 1-29.
- Chollett, D. L. 2014. "The Native American Organic Garden: Using Service Learning as a Site of Resistance." Culture, Agriculture, Food and Environment 36 (2): 93-104. doi:10.1111/ cuag.12037.
- Chrzan, J. 2004. "Slow Food: What, Why, and to Where?" Food, Culture and Society 7 (2): 117-132. doi:10.2752/155280104786577798.
- CNN. 2015. "You Voted: World's Best Food In?" CNN Website, June 14. https://edition.cnn.com/ travel/article/world-best-food-culinary-journeys/index.html
- Cohen, B. R. 2014. "Don't Mono-crop the Movement: Toward a Cultural Ecology of Local Food." Gastronomica 14 (1): 5-8. doi:10.1525/gfc.2014.14.1.5.
- Davies, A. R., and R. Legg. 2018. "Fare Sharing: Interrogating the Nexus of ICT, Urban Food Sharing, and Sustainability." Food, Culture & Society 21 (2): 233-254. doi:10.1080/ 15528014.2018.1427924.
- De St. Maurice, G. 2013. "The Movement to Reinvigorate Local Food Culture in Kyoto, Japan." In Food Activism: Agency, Democracy and Economy, edited by C. Counihan and V. Siniscalchi, 77-94. London, UK: Berg.
- De St. Maurice, G. 2014. "Cooking, Food Consumption, and Globalization: Ethical Considerations." In Encyclopedia of Food and Agricultural Ethics, edited by Paul B. Thompson and David M. Kaplan, 405-412. New York: Springer.
- DuPuis, E. M., and D. Goodman. 2005. "Should We Go "Home" to Eat?: Toward a Reflexive Politics of Localism." Journal of Rural Studies 21 (3): 359-371. doi:10.1016/j. jrurstud.2005.05.011.
- Feagan, R. 2007. "The Place of Food: Mapping Out the 'Local'in Local Food Systems." Progress in Human Geography 31 (1): 23-42. doi:10.1177/0309132507073527.
- Grasseni, C. 2014. "Food Activism in Italy as an Anthropology of Direct Democracy." Anthropological Journal of European Cultures 23 (1): 77-98. doi:10.3167/ajec.2014.230105.
- Grasseni, C., and J. Hankins. 2014. "Collective Food Purchasing Networks in Italy as a Case Study of Responsible Innovation." Glocalism: Journal of Culture, Politics and Innovation 2014 (2): 1-15. doi:10.12893/gjcpi.2014.1-2.13.
- Grosglik, R., and U. Ram. 2013. "Authentic, Speedy and Hybrid: Representations of Chinese Food and Cultural Globalization in Israel." Food, Culture and Society 16 (2): 223-243. doi:10.2752/ 175174413X13589681351296.
- Hallström, E., A. Carlsson-Kanyama, and P. I. I. Börjesson. 2015. "Environmental Impact of Dietary Change: A Systematic Review." Journal of Cleaner Production 91: 1-11. doi:10.1016/j. jclepro.2014.12.008.
- Heller, C. 2007. "Techne versus Technoscience: Divergent (And ambiguous) Notions of Food "Quality" in the French Debate over GM Crops." American Anthropologist 109 (4): 603-615. doi:10.1525/aa.2007.109.issue-4.
- Hinrichs, C. C. 2003. "The Practice and Politics of Food System Localization." Journal of Rural Studies 19 (1): 33-45. doi:10.1016/S0743-0167(02)00040-2.
- Hobart, H. J. 2016. "local': Contextualizing Hawai'i's Foodways." Food, Culture and Society 19 (3): 427–435. doi:10.1080/15528014.2016.1208322.
- Hu, M.-L., J.-S. Horng, C.-C. Teng, and S.-F. Chou. 2013. "A Criteria Model of Restaurant Energy Conservation and Carbon Reduction in Taiwan." Journal of Sustainable Tourism 21 (5): 765–779. doi:10.1080/09669582.2012.721787.
- Huang, S.-M. 2013. "Taiwanese Organic Farming and Its Technological Change: Limitations in Development." Taiwan Journal of Anthropology 11 (1): 9-34.



- Julier, A., and G. W. Gillespie Jr. 2012. "Encountering Food Systems: A Conversation about Thinking, Teaching and Social Change." Food, Culture & Society15, no. 3: 359-373. doi:10.2752/175174412X13276629245768.
- Jung, Y. 2012. "Experiencing the 'west' through the "East" in the Margins of Europe: Chinese Food Consumption Practices in Postsocialist Bulgaria." Food, Culture and Society 15 (4): 579-598. doi:10.2752/175174412X13414122382809.
- Kennedy, H., J. R. Parkins, and J. Johnston. 2018. "Food Activists, Consumer Strategies, and the Democratic Imagination: Insights from Eat-local Movements." Journal of Consumer Culture 18 (1): 149–168. doi:10.1177/1469540516659125.
- Klein, J. 2009. "Creating Ethical Food Consumers? Promoting Organic Foods in Urban Southwest China." Social Anthropology 17 (1): 74–89. doi:10.1111/j.1469-8676.2008.00058.x.
- Kurtzman, J. 2018. "The Low-Carbon Diet." Foreign Affairs October 17. https://www.foreign affairs.com/articles/2009-09-01/low-carbon-diet
- Leblanc, R. 1999. Bicycle Citizens: The Political World of the Japanese Housewives. Berkeley: University of California Press.
- Lewis, T. 2015. "one City Block at a Time': Researching and Cultivating Green Transformations." International Journal of Cultural Studies 18 (3): 347-363. doi:10.1177/1367877913513694.
- Lewis, T., and A. Huber. 2015. "A Revolution in an Eggcup? Supermarket Wars, Celebrity Chefs and Ethical Consumption." Food, Culture and Society 18 (2): 289-307. doi:10.2752/ 175174415X14190821960798.
- Lii, D.-T. 2011. "Civic Agriculture and Social Reconstruction." Taiwan: A Radical Quarterly in Social Studies 84: 431–464.
- Long, J. 2011. "Entering the New Conversational Marketplace: Narratives of Sustainability and the Success of Farm Direct Markets." Food, Culture and Society 14 (1): 49-69. doi:10.2752/ 175174411X12810842291182.
- Lynch, M., and A. Giles. 2013. "Let Them Eat Organic Cake: Discourses in Sustainable Food Initiatives." Food, Culture and Society 16 (3): 479-493. doi:10.2752/175174413X13673466711967.
- Mallory, C. 2013. "Locating Ecofeminism in Encounters with Food and Place." Journal of Agricultural and Environmental Ethics 26 (1): 171-189. doi:10.1007/s10806-011-9373-8.
- Ministry of Agriculture of Taiwan. 2017. "Annual Agricultural Statistical Report." June 27. http:// agrstat.coa.gov.tw/sdweb/public/book/Book.aspx
- Minkoff-Zern, L.-A. 2017. "The Case for Taking Account of Labor in Sustainable Food Systems in the United States." Renewable Agriculture and Food Systems 32 (6): 576: 578. doi:10.1017/ S1742170517000060.
- Nützenadel, A., and F. Trentmann, eds. 2008. Food and Globalization: Consumption, Markets and Politics in the Modern World. New York, NY: Berg.
- Orlando, G. 2011. "Sustainable Food Vs. Unsustainable Politics in the City of Palermo: The Case of an Organic Farmers' Market." City & Society 23: 173-191. doi:10.1111/j.1548-744X.2011.01061.x.
- Perrin, A. 2006. Citizen Speak: The Democratic Imagination in American Life. Chicago, IL: University of Chicago Press.
- Phillips, L. 2006. "Food and Globalization." Annual Review of Anthropology 35: 37-57. doi:10.1146/annurev.anthro.35.081705.123214.
- Renting, H., T. K. Marsden, and J. Banks. 2003. "Understanding Alternative Food Networks: Exploring the Role of Short Food Supply Chains in Rural Development." Environment and Planning A: Economy and Space 35 (3): 393-411. doi:10.1068/a3510.
- Reporters without Border. 2018. "World Press Freedom Index." Reporters Without Border. Accessed 1 October 2018. https://rsf.org/en
- Sage, C. 2011. Environment and Food. London: Routledge.
- Schumilas, T., and S. Scott. 2016. "Beyond 'voting with Your Chopsticks': Community Organising for Safe Food in china." Asia Pacific Viewpoint 57 (3): 301-312. doi:10.1111/apv.2016.57.issue-3.
- Smith, P., M. Bustamante, H. Ahammad, H. Clark, H. Dong, E. A. Elsiddig, H. Haberl, et al. 2014. "Agriculture, Forestry and Other Land Use (AFOLU)." In Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, edited by O. Edenhofer, R. Pichs-Madruga,



- Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, et al., 811-922. Cambridge, UK: Cambridge University Press.
- Sustainable Development Committee (U.K.). 2011. "Looking Back, Looking Forward: Sustainability and UK Food Policy 2000 - 2011." http://www.sd-commission.org.uk/publica tions.php@id=1187.html
- Thompson, P. B. 2017. The Spirit of the Soil: Agriculture and Environmental Ethics. New York: Taylor & Francis.
- Tørslev, M. K., M. Nørredam, and K. Vitus. 2017. "Exploring Foodscapes at a Danish Public School: How Emotional Spaces Influence Students' Eating Practices." Food, Culture and Society 20 (4): 587-607. doi:10.1080/15528014.2017.1357946.
- Tsai, J.-S. 2016. "Farmer's Markets Blossom [Nong Min Shi Ji Bian Di Kai hua]." News and Market Website, November 21. https://www.newsmarket.com.tw/blog/89715/
- Tung, S.-J. 2007. Something about Organic. Taichung, Taiwan: Xibu Publishing.
- Tung, S.-J. 2009. "Energy and Informal Education: Localizing Agriculture and Carbon Reductions - A Case Study of Organic Farmers Market." National Science Council Project Report. Taichung. Graduate Institute of Bio-industry Management. National Chung Hsing University.
- Wang, C.-C., C.-H. Tsai, and C.-H. Liao. 2013. "Factors Influencing the Choice of Low-Carbon Diet." Mackay Journal 11: 91-127.
- Wang, S. 2011. "A Practice-based Approach to Examine Sustainable Consumption Policies in Taiwan: The Case of "Energy-saving, Carbon reduction" Movement." Journal of State and Society 11 (Dec 2011): 107-158.
- Watson, J. L., and M. Caldwell. 2005. The Cultural Politics of Food and Eating: A Reader. Malden, MA: Blackwell Publishing.
- Wilk, R. 1999. "Real Belizean Food': Building Local Identity in the Transnational Caribbean." American Anthropologist 101 (2): 244-255. doi:10.1525/aa.1999.101.2.244.
- Wilk, R. 2017. "Without Consumer Culture, There Is No Environmental Crisis." PERN Cyberseminar on Culture, Beliefs and the Environment, Indiana University, Indiana. Accessed 30 September 2018. https://www. academia. edu/33409924/Without_Consumer_Culture_ there_is_no_Environmental_Crisis
- Yan, Y. 2012. "Food Safety and Social Risk in Contemporary China." The Journal of Asian Studies 71 (3): 705-729. doi:10.1017/S0021911812000678.