The Potential of Bottom-up Social Innovation for Rural Development: Three Cases in Japan

農業・農村発展におけるボトムアップ型ソーシャルイノベーションの可能性：

日本における三つの事例にもとづいて

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List of Abbreviations

AFNs: Alternative Food Networks

BPFARA: Basic Plan for Food, Agriculture, and Rural Areas

CAA: Consumer Affairs Agency

CNDP: Comprehensive National Development Plan

DX: Digital Transformation

FAO: Food and Agriculture Organization of the United Nations

ICT: information and communications technology

IFOF: International Film Festival on Organic Farming

IFOAM: International Federation of Organic Agriculture Movements

IoT: Internet of Things

JA: Japanese agricultural cooperatives

JETRO: The Japan External Trade Organization

JICA: Japan International Cooperation Agency

JOAA: Japan Organic Agriculture Association

KOFA: Kagoshima Organic Farmers Association

Support Center: Kagoshima Organic Agriculture Technical Support Center

KOFPC: Kagoshima Organic Farming Promotion Council

KYLA: Kansai Yotuba Liaison Association

LDP: Liberal Democratic Party

MAFF: the Ministry of Agriculture, Forestry and Fisheries

METI: Ministry of Economy, Trade and Industry

NGO: Non-Governmental Organization

NPO: Non-profit Organization

OECD: Organisation for Economic Co-operation and Development

POD: Polan Organic Foods Delivery

PPP: Public-Private Partnership

S100AP: Shiga 100 Agri-girls project

SI: Social Innovation

TFR: total fertility rate

Tsukuru-ka: Kagoshima Tadashii Tabemono wo Tsukuru Kai

WHO: World Health Organization

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Chapter 1: Introduction

Social innovation (SI) is considered a pragmatic strategy for addressing environmental, social, and economic challenges and fostering social transformation (Păunescu, 2014), and it is also recognized as a catalyst for interdisciplinary and transdisciplinary scientific research (Moulaert et al., 2013). There is, however, no consensus regarding its precise definition and understanding (Tanimoto, 2006; Bock, 2013; Moulaert, (Ed.), 2013; Aoo, 2018). In Chapter 2, this theis frames SI according to its three primary features: (1) it encompasses both the process and outcome (Murray et al., 2010), both of which are often intangible in nature (Neumeier, 2012) and not necessarily bound to a physical space (Terstriep, et al, 2015); (2) it reconfigures social practices (i.e., novelty) to meet social needs and enhance societal well-being through collective action and civic engagement (Mulgan et al., 2007; Phills et al., 2008; Westley et al., 2009; Howaldt et al., 2014; Polman et al., 2017); and (3) it is path-dependent and contextual (Moulaert et al., 2013).

Since the 2000s, the field of SI has had significant advancements in both empirical and theoretical domains, mostly driven by the contributions within Western academic institutions. Although the focus on for-profit social enterprises, and the "heroic social entrepreneur" persist in US business schools and their followers (e.g., Pol & Ville, 2009, Christensen & Bower, 1996; Christensen, 2013; Tanimoto et al., 2013; Aoo, 2018), the advancement of SI studies has been founded on the importance of mechanisms and processes of addressing social issues through civic activities and collaborations beyond markets and governments from a community-level perspective (e.g., Mulgan et al., 2007; Phills et al., 2008; Westley and Antadze, 2010, Moulaert et al., 2013). As such, SI theory came to (1) differentiate itself from business-technology innovation with its focus on social impact and social enterprises (Moularet et al., 2013); (2) extend its focus from the micro (individuals and individual organizations) to the macro (countries and societies) (Westley and Antadze 2010; Howaldt et al. 2014; Cajaiba-Santana 2014) to include multilayered processes and scales of analysis; and (3) emphasize the roles and relationships between various stakeholders including government, business, and civil society, as well as social enterprises and NPOs/NGOs (Aoo, 2018, p.114).

Despite the expanding literature on SI studies within Japan, with several noteworthy SI case studies, its impact on the progress of SI theory within the growing SI literature globally has been limited. According to Aoo, the academic lag in Japan can be attributed to several factors (2018, p.114). Firstly, there is a limited level of academic collaboration and communication with scholars in other countries, coupled with a strong academic trend towards innovation solely based on business and technology. There is also a tendency to use SI theory as an analytical tool complementary to other theories and use the notion of SI interchangeably with social business/investment, leading to a blurred and chaotic application of the theory. Acknowledging these limitations, SI literature in Japan has since progressed theoretically and empirically to fill the research gaps (e.g., Sano, 2020; Aoo, 2018, 2022) since around 2015. Given the pre-dependent and contextual features characteristic of SI, the empirical and theoretical work developed in Japan is both valuable and complementary to the further progress of SI theory. For example, an emphasis on the role of public-private partnerships (PPPs) in SI formation and process in

the Japanese studies differs from the Western understanding of SI which positions PPP[1]s as playing a less significant role, based on an analysis of 1005 global cases, which exclude Japan, in the SI-DRIVE database) (e.g., Butzina and Terstriep, 2018). This difference in the context of Japan can be attributed to a combination of unique socio-political conditions with the norm of "welfare" in the social system shaped by policy reforms since the 1980s (Kimura, 2018). In this sense, SI empirical work in Japan could expand and enhance the comprehension of SIs globally by offering different insights, while Western SI theories could further enrich the conceptualization and theoretical understanding of SI in the Japanese context. This thesis therefore seeks to help bridge that gap and contribute to the further advancement of SI studies.

1.1 Problem Statement, Research Scope, Objectives and Questions

Problem Statement and Research Scope

With the increasing awareness of food security and the advent of continuous shortage of labor supply in agriculture, rural areas are no longer perceived as residual passive spaces dominated by societal demands articulated in urban centers but nodes of social change that may substantially contribute to a more sustainable and resilient future (Schermer & Kroismayr, 2020). SI, as a driver of social transformation, is the key to facilitating the transformative role of rural areas in any society (Neumeier, 2012). Therefore, in recent years, a growing cohort of researchers across several academic disciplines has shown a heightened interest in incorporating SI studies, particularly around topics pertaining to rural development and community regeneration. Pioneering research on SI in rural development recognizes the significant potential of both top-down and bottom-up initiatives in addressing societal challenges and promoting the overall welfare of rural communities (Neumeier, 2012; Bock, 2016).

The emphasis on the neo-endogenous perspective in rural development studies, for example, the supporting roles of actors in extra-local environments, such as politico-administrative actors, within the bottom-up initiatives (Ray, 2006) has led to increased interest in examining the potential and process of bottom-up SI initiatives to transform society. It can therefore be stated that recent empirical work in rural development studies has been largely around approaching the potential for bottom-up or bottom-linked SI's towards instigating social transformation in rural contexts, with a particular focus on mechanism (de Fátima Ferreiro et al., 2021; Noack & Federwisch, 2019; O'Shaughnessy et al., 2023; Steiner et al., 2021), actors (Alberio & Moralli, 2021; Chen et al., 2022; Jungsberg et al., 2020; Nordberg et al., 2020; Richter & Christmann, 2021) and process

[1] PPP is a partnership between the government and the private sector for the construction, maintenance, management, and operation of public facilities, in which the private sector's originality and ingenuity are utilized to achieve efficient use of financial funds and administrative efficiency. There are a variety of methods such as the designated manager system, comprehensive private sector consignment, and private finance initiative (PFI). https://www.mlit.go.jp/sogoseisaku/kanminrenkei/1-1.html, https://www.mlit.go.jp/common/000130673.pdf, last accessed on October 17, 2023.
PPP organizations include Regional Collaboration Council (地域連携協議会), project promotion council and commissioned NGOs/NPOs.

(Castro-Arce & Vanclay, 2020; Kluvankova et al., 2021; Rogelja et al., 2023; Stoustrup, 2022; Baxter, 2021).

The dynamics of such transitions have been understood as being contingent upon the manner in which SIs navigate existing regimes, with particular emphasis on whether SI aims to adhere to or alter these regimes (Smith and Raven, 2012). Approximately 33% of the SI in the field of SI study in the global mapping were focused on achieving systemic change (Howaldt et al., 2016). Three models regarding the role of SI in systemic social change have been commonly referenced in rural development studies. First is the three-stage SI process model (problematization, expression of interest, and delineation and coordination) proposed by Neumeier (2012, 2017) which follows a diffusion tradition of business and technology-oriented innovation studies. Second is the "quadruple helix model" which tries to capture a spiral process of growth of SI following the "diffusion" tradition, highlighting the participation of university, industry, government, and civil society actors (McAdam & Debackere, 2018). The third model is the six-stage process model that presents a linear and step-wide development of SI (1. identification, 2. proposals and idea development, 3. prototyping and testing, 4. sustaining, 5. scaling and 6. systematic change) (Murray et al., 2010). These models and their limitations will be further discussed in Chapter 2.

As previously mentioned, SI does not arise arbitrarily but instead manifests inside a specific context where it is profoundly embedded. It is therefore often suggested that SIs are interdependent with their surrounding economic and socio-political environments through their interactions and dynamics of co-development. Such environments could be shaped by the institutional and material infrastructures, social norms, public narratives, actions and networks of diverse actors, histories and cultural legacies. Given these factors, basic considerations around SI for social transformation arise around Gidden's structure-agency theory (1984). How can the environments where SI is embedded constrain or aid its potential for social transformation? And to what extent are SI stakeholders able to exert their "agency" to transform? This study is guided by the premise that the relationship between SI and its embedded context is more likely to be a dynamic process that is shaped by the interaction between internal actors of SI and the socio-political and economic contexts. Regardless of these dynamic interdependencies, however, few studies have provided a clear explanation of the roles and interactions of internal and external actors to SI (Neumeier (2017), as well as how, why, and to what degree SI developers or operational organizations might affect or transform the "structure" by exerting their "agency". This research gap may be because of the aforementioned three SI process models (Neumeier, 2012; McAdam & Debackere, 2018; Murray et al., 2010) adhering to linear, sequential and static logic. These linear and one-directional perspectives easily lead to the conclusion that only specific types of SI or pathways facilitate bottom-up governance, subsequently leading to sustainable and revolutionary regional development (e.g., Castro-Arce and Vanclay, 2020). However, the development of SI might step forward and draw back and more like an ecosystem. The constantly dynamic aspects of the development process of SI as well as the initiative of involved actors, have been looked down upon or overlooked in the existing models. For instance, the power relations, and trade-off decisions made by different individual actors in the process of SI are crucial to understanding the power of exerting "agency" by different stakeholders for SI transformation.

Learning from these trends, this thesis aims to examine the potential of bottom-up SI for social transformation in the rural context. This will be done by adopting a novel epistemological framework in order to comprehend the non-linear and dynamic interplay between institutional order, multi-level governance, and multiple actors alongside the facilitation or hindrance of SI in the process of transformation. In particular, the SI ecosystem and scaling framework (i.e., "scaling out" by replication and dissemination of SI principle, "scaling up" to affect formal institutions such as laws, regulations and policies, and "scaling deep" to change people's mindsets) will be employed as a means to organically bridge the disconnections between the micro (or "agency") and the macro (or "structure") (Terstriep et al., 2015; Sano, 2020; Aoo, 2022; Westley and Antadze, 2010; Moore, Riddell & Vocisano, 2015, Aoo, 2018). Following the same vein, this thesis will narrow the research scope based on a combined ecosystem and scaling strategy perspective to focus on the process and outcome of a bottom-up SI dynamic development.

Research Objective and Questions

This thesis aims to examine the potential of bottom-up social innovations (SI) to transform rural society by identifying the specific actors or factors that contribute to or hinder rural development by exerting their "agency". This examination will be conducted through the lens of a dynamic process ecosystem framework. In Chapter 3, the author first developed an analytical framework with three steps by drawing insights from a source of knowledge in both the Western and Japanese SI studies. Theoretically, it includes the SI ecosystem theory (Terstriep et al., 2015; Sano, 2020; Aoo, 2022) and scaling model (Westley and Antadze, 2010; Moore, Riddell, & Vocisano, 2015), as well as the multilayered and dynamic "regional ecosystem" framework based on the Structure-Agency theory (Giddens, 1984) proposed by Japanese SI academics (Sano, 2020; Aoo, 2022). The potential of SI in transformation may depend on two considerations from a dynamic ecosystem perspective based on the "structure-agency" theory. First lies in the interdependence, interaction and co-development of SI and the economic and socio-political environments in which SI is embedded. The environments could be shaped by the institutional and material infrastructures, social norms, public narratives, actions and networks of diverse actors, and histories and cultural legacies. Another consideration is to what extent SI developers or operational organizations as well as supporters and promoters within the SI ecosystem could exert their "agency" to transform rural society (i.e., structure) through the implementation of scaling strategies. This study hopes to provide a comprehensive analysis of the implementation of strategies for scaling and the dynamics of interaction between actors within the SI-centered ecosystem and external stakeholders. Accordingly, this study presents three progressive objectives and seven research questions in total, as outlined below.

Objective 1: To understand each SI as an ecosystem encompassing the "structure" and the actors who exert "agency".

1. What economic and socio-political environments (i.e., "structure") are SIs embedded in?
2. How is each ecosystem being formed and developed?
3. Who are the main actors in each ecosystem?

Objective 2: To examine the scaling strategies (i.e., "agency") employed by SI developers or operational organizations.

1. What scaling strategies does each SI employ?
2. Which actors are implementing the scaling strategies? How are they putting the strategies into practice?
3. Why are the employed scaling strategies successful? What actors celebrate the success of SIs?

Objective 3: To investigate the potential of SIs in transforming society.

(Based on the accomplishments of the above two objectives)

1. What are the dynamics of the formation and growth of SIs? What roles do the diverse actors in economic, political and social domains play in the process?
2. What facilitation or hindrances determine the potential of these bottom-up SI ecosystems to transform society?

1.2 Methods

The author employs the case study method to investigate the SI ecosystem in Japanese society as "an existing phenomenon in a context, where there is no boundary between the phenomenon and the context" (Yin, 2009). For the case selection, SIs in civil society (bottom-up) were chosen because "civil society is at the core of SI for it relies on multi-level embeddedness" (Terstriep et al., 2020). Cases for this study were selected following two steps: First, based on the urgent societal problems in contemporary Japan in general and in rural areas in particular, as outlined above, three kinds of SI initiatives were identified. The three initiative types were selected: organic agriculture networks addressing environmental pollution and offering alternatives in farming (case 1), rural revitalization initiatives involving young people from outside the remote rural communities (case 2), and women-led networks for increasing the number and motivation of female farmers (case 3).

The second step involved narrowing down the selection among the identified SIs. While they were all bottom-up, small-scale, and locally embedded initiatives, emphasis was placed on initiatives that had a clear objective, and tangible results and were active in implementing scaling strategies. Particular attention was placed on those celebrated as successful cases, along with SI cases that were widely reported in the media and governmental documents. According to Kimura (2018), academia is often the first to recognize and highlight these SI initiatives, after which governmental bodies legitimize them through public-private partnerships (PPPs), awarding prizes, or other methods for formal recognition. SIs are also highlighted by influential media outlets and in official publications by local governments to raise public awareness of their crucial roles in rural revitalization. Such endorsements and promotion of these "successful" initiatives by the government, media, and intellectual institutions are intended to facilitate the adoption of similar SIs by other remote and underprivileged areas as a strategy for achieving development and revitalization. Such efforts to promote duplication or emulation fail to understand the profound embeddedness of these SIs in their contexts. Nonetheless, to examine the potential of bottom-up SI for social transformation in the rural context, three

distinct "successful" SIs were selected as case studies: 1) The Kagoshima Organic Farmers Association(KOFA:かごしま有機生産組合), an incorporated farmers' association; 2) Aguri-na-jikan (Time for Agri: アグリナジカン), a social enterprise; and 3) The Shiga 100 Agri-girls Project (S100AP: しが農業女子 100 人プロジェクト), a voluntary membership civic group for women.

For these case studies, qualitative methods were employed to collect data, which included (1) unstructured and semi-structured interviews (31 in total), (2) participant observation (44.5 days in total), (3) questionnaire survey, and (4) documents and media analysis. The details of the methods are summarized in Table 1-1 and elaborated briefly in each chapter which highlights the cases.

Table 1-1 Methods of Data Collection in Three Case Studies

Methods	Case 1: KOFA	Case 2: Time for Agri	Case 3: S100AP
Field trip dates	February 12th to 26th, 2022	December 6th, 2017; June 13th, 2019; November 6th and 9th, 2020; August. 13th to September 10th, 2021; March 6th, 2022	April 11th, 2022; August 10th, 13th, 17th, 19th, 23rd, 25th, 30th, November 8th and 16th, December 6th, 2022
(1) Unstructured and Semi-structured Interviews	13 interviews	11 interviews	7 interviews
	5 farmer members, 2 trainees, 3 employees, 1 senior manager, 1 representative director	5 prefectural government officers, 1 innovator (3 times), 2 farmers, 1 trainee, 2 NPO staff	1 prefectural government officer, 6 farmer members and directors
(2) Participant Observation	8.5 days	29 days	7 days
	processing and packaging, seeding, fertilizing, weeding, trimming	visit an orange farmer, stay in the share house and farmer's dormitory, sort salted plums	weeding, selling blueberries, participating the government-led seminars and event
(3) Questionnaire Survey	None	10 respondents out of 60 participants in 2021	None
		ages 24 and 46, at Minabe, Wazuka and Abu town	
(4) Document and Media Analysis	Book, AiraView (2013-2022) and Chikyubatake periodicals (2011-2022), Instagram, official website, NPOs' Youtube channels, Line	Podcast(stand.fm), Youtube, Facebook, official website, Line, Instagram, Yomiuri Shimbun Wakayama, Kii Minpo, Gohan Bijinshi, and Hidakashimpo, NHK TV	Chunichi, Shigahochi, Yomiuri Shiga, Shiga plus one, Instagram, Facebook, official website, Line, governmental reports
	essays about 27 organic farmers, 6 consumers and 3 partners' representative directors	31 audios on the stand.fm., 30 innovator's messages, and 49 reports on the official website, 84 videos on Youtube Channels	27 essays about farmer members on the official website

Source: Summarized by the author.

The first case study on KOFA employed three qualitative methods to collect data: (1) 13 unstructured and semi-structured interviews, including nine on-site interviews and two virtual interviews. (2) on-site participant observation was conducted for 8.5 days during

a two-week field trip to KOFA, and (3) document and media analysis for the case study was based on gray literature and media analysis. In total, first-hand and second-hand information pertaining to about 40 KOFA farmer members (out of about 160 in total) was collected.

The second case with Time for Agri, employed four qualitative methods to collect data: (1) 11 unstructured and semi-structured interviews, in person in Wazuka town (Kyoto) and in Minabe town (Wakayama) or via SNS (Messenger); (2) participant observation in Minabe town, Wakayama prefecture, for nearly one month in 2021; (3) questionnaire survey where 10 responses were collected out of about 60 farming workers; and (4) document and media analysis was conducted based on various data sources, including Minabe town and Wazuka town governmental reports, media reports, and materials of Time for Agri (31 audios on the stand.fm., 30 innovator's messages, and 49 reports on the official website, 84 videos on their Youtube Channels). Such methods were employed because Time for Agri's confidentiality policy made it difficult to collect basic data. A questionnaire survey along with a 10-minute introductory video explaining the scope and purpose of this research through the coordinator of Time for Agri to earn the trust and cooperation of the community members.

For the third case study, three qualitative methods were adopted: (1) on-site interviews with stakeholders including five directors and an auditor in the committee of S100AP and a prefectural official in the agricultural department in 2022; (2) participant observation at events organized by S100AP, farmers' markets and the Shiga prefectural government; and (3) document and media analysis which included gray literature collected from diverse media and sources including the prefectural and municipal governmental documents, the official website of S100AP, social media platforms like Facebook and Instagram, and newspaper reports. Twenty-seven reports of farmer members on the official website of their organization were utilized as complementary data.

1.3 Background of Japan

Because SI is pre-dependent and contextual, it is necessary to outline a background of Japan in general as well as rural areas in particular. This section is divided into two parts. The first subsection introduces the socio-political and economic environments in Japan with a particular focus on the demographic changes over recent decades and future projections. The second subsection zooms into the challenges in rural areas in Japan and outlines the relevant rural policies addressing these challenges.

1.3.1 Socio-political and Economic Conditions in Japan

Economic Growth and the Rise of the Middle Class and Social Movements

Japan experienced rapid economic growth (with the exception of two oil shocks during the 1970s) from the late 1950s to the 1990s and has been experiencing economic decline ever since (Figure 1-4). During its economic boom was a time of significant socio-political and environmental transformation. One major characteristic shaping society was the postwar tax system characterized by a low tax burden ratio (i.e., a percentage of total tax

revenue to national income), showcasing "a small government[2]" orientation with a cumulative budget deficit in the fiscal structure (Ishi, 2004, cited in Kamo, 2009). This resulted in the limited role of the government in providing welfare services, even during the period of rapid development, and the welfare cost born largely by corporations (e.g., housing, educational service, medical insurance, and retirement pension for a family) (Kamo, 2009) and constructed "traditional" Japanese family culture during the post-war period (i.e., three generations living together and full-time housewives) (Iwashima & Sato, 2021). The lack of labor during the rapid economic growth period in Japan was compensated by the strategies of drastically replacing the workforce with automated machines and establishing joint ventures and transnational corporations in foreign countries as well as mobilizing females (i.e., "double exploitation") and the elderly[3](Ueno, 1990; 2005). Rapid industrial development also led to environmental pollution and health hazard issues, famously in Minamata and Yokkaichi. The increasingly industrialized and modernized forms of agriculture and its environmental and ethical problems further drew great attention from the public and resulted in wide consumer-led social movements (i.e., in the form of cooperative association and *Teikei*, organic agriculture) during the 1960s and 1970s. As a result of the persistent organic movements and the growth of the organic sector, the Act on the Promotion of Organic Agriculture was enacted in 2006. This point will be further elaborated in Chapter 5. The retreat of government led to the increase of volunteer activities[4] within civil society in the 1960s because of the increasing number of middle-class citizens, which included educated women and students, and the creation of leisure time through economic growth and modern lifestyles (Aoo, 2018, p.53).

Decline of the Economy and Social Safety Nets

Over recent decades, the three-tier "safety net" in Japan consisting of employment, social welfare, and public assistance to ensure a minimum standard of living has broken and led vulnerable people to be further stuck in poverty (Yuasa, 2008). Since the long-term economic recession of the 1990s, former full-time employment opportunities have been

[2] For a long time, the ruling party in Japan was the Liberal Democratic Party (LDP). Their politicians, central ministries and interest groups, e.g., agricultural cooperatives, medical associations, industrial lobbying groups and neighborhood associations, formed alliances to distribute subsidies and projects to the supporters of the LDP government in a system until the 1970s. Since the 1990s, ruling party coalitions have changed over time, but since 2012, the LDP has come back into power. After the electoral reforms of 1994 and the Koizumi administration (2002-2006), the Prime Minister and the Cabinet Office centralized power in terms of policy development (Aoo, 2018, pp.47-8). In addition, Japan has a two-tiered local government system, i.e., municipalities and prefectures. The former is the local government that is closest to the residents, while the latter fulfills various administrative duties as the regional government for the municipalities under their governance.

[3] In gerontology and public health studies, women and the elderly are considered potential human capital (Haga, 2018). Haga (2018, p. 90) suggests that treating the elderly as mere receivers of social services means a significant loss in human capital and they are essential for revitalization in hilly and mountainous areas. However, the general four strategies (equal employment opportunities and improved working conditions, an extension of the retirement age, enhancing role of women in the labor force and immigrants) for offset rising pension and health system costs are insufficient to compensate for a declining labor force in Japan (Usman, Sawaya, Igarashi, Gayman, & Dixit, 2021).

[4] The citizen volunteers rescue activities and the government's failure in the Great Hanshin Earthquake triggered and accelerated the enactment of The Law to Promote Specified Non-profit Activities in 1998 (Aoo, 2018). In 2023, the number of registered NPOs has exceeded 50,183according to the statistics of the Cabinet Office. https://www.npo-homepage.go.jp/about/toukei-info/ninshou-zyuri, last accessed on September 27, 2023.

gradually and massively replaced by contractual employment of part-time workers largely of women, the elderly, and youth. These part-time employees receive lower salaries and often lack social insurance, which includes employees' pensions, unemployment insurance, health insurance, and workers' accident compensation insurance. Despite the increase in precarious labor conditions, a portion of people are generally reluctant to receive welfare assistance due to psychological reasons (Yuasa, 2008, pp.28-30). As a result, youth in poorer families are considered the greatest victims of the broken social "safety net" (i.e., employment, social welfare, and public assistance) because they are marginalized and even excluded from society by five layers[5] (Yuasa, 2008, pp.60-62).

Depopulation and Aging in Rural Japan

Demographic challenges, including depopulation, aging and out-migration of the youth from rural areas to the limited number of urban cities, continue to threaten not only the Japanese norms of mutually supportive families (i.e., three generations living together) but also the reproduction system that underpins the capitalist society (Kamo, 2009). Japan's population began to decline after peaking at about 128 million in 2008 when the first generation of baby boomers (those who were born between 1947 and 1949) turned 60 and retired (see Figure 1-1 and Figure 1-4). Since then, the total population has been consistently declining[6], dropping to 125.71 million in 2020 (Statistics Bureau, 2020) and is estimated to fall to about 101.92 million[7] in 2050 (Research National Institute of Population and Social Security, 2018). In addition to declining birth rates, Japan's population is dramatically aging[8]. The population of those 65 years or older increased from about 22 million in 2000 (17.36%) to about 36 million in 2020 (28.79%) and is estimated to increase to 38 million in 2050 (37.69%) (Statistics Bureau, 2020). Thus, all these facts together are leading and will consistently lead Japan to a super-aging and short-of-labor society. It makes the Japanese experience significant for the whole world because all countries will face similar challenges as Japan soon according to the World

[5] They are (1) exclusion from educational opportunities, (2) exclusion from corporate welfare, (3) exclusion from family welfare, (4) exclusion from public welfare, (5) exclusion from oneself.

[6] Two factors are recognized as the causes of the population decline: the plunging birthrate and progressing aging of the overall population. The number of births decreased from 1.19 million in 2000 to 0.87 million in 2020. The total fertility rate (TFR) stopped its 10-year-long bouncing trend and began to drop again from 1.049 in 2013 to 1.368 in 2021 (Statistics Bureau, 2021). The reasons might be the financial burden of raising and educating children, problems conceiving (Usman & Tomimoto, 2013), and wishing to prioritize their careers (Usman, Sawaya, Igarashi, Gayman, & Dixit, 2021). TFR refers to the average number of children per woman. According to the UN Population Division, a TFR of about 2.1 children per woman is called replacement-level fertility. If replacement level fertility is sustained over a sufficiently long period, each generation will exactly replace itself. (United Nations - World Population Prospects, 2019). Consequently, the number of households increased to 55.72 million in 2020, due to the successive increase in one-person households. As such, the average number of people per household has dropped from 2.33 members in 2015 to 2.27 members in 2020 (Statistics Bureau, 2020).

[7] The population will be the same level as the population before Japan's "Izanagi Boom" period from the late 1960s to the early 70s, although at the time the aging rate was only around 7% (Statistics Bureau, 2021).

[8] At this rate, there is projected to be one aging person (i.e., those 65 years or older) in every 2.6 people in 2065, according to the projection in the Annual Aging Society White Paper (2020) released by the Cabinet Office (Cabinet Office, Government of Japan, 2020). Consequently, the number of deaths rose from 0.96 million in 2000 to 1.37 million in 2020.

Health Organization[9] (WHO) and the projection of the Revision of World Population Prospects[10] of the United Nations.

Demography and Social Disparity

The unequal geographic distribution of the population is exacerbating and widening economic and socio-political gaps among municipalities (i.e., cities, towns and villages). The percentage of the urban population started increasing in the late 1950s. As illustrated in Figure 1-2, the constant in-migration of the population from small towns and villages renders three large metropolitan regions[11] (i.e., the Tokyo, Chukyo, and Kansai major metropolitan areas) accounting for about 60 percent of the total population. Except for the three major metropolitan areas and Fukuoka, prefectures all suffer from depopulation; these prefectures will lose about half of their population out of which 20% of municipals will be uninhabited by 2050, according to the projection by the National Institute of Population and Social Security Research (Figure 1-3). Since the 1990s, a series of municipal mergers (about 3,230 municipalities in 1995) occurred on the one hand, while decentralization reforms occurred as a result of fatigue and inefficiencies in the centralized administrative system, changes in the international advanced political ideology, correction of excess concentration of population and industry in the Tokyo Metropolitan area (東京一極化集中), the formation of the idea of diversified modes of communities, and demographic decline and aging (Mayama, 2018).

Challenges of National Governance

Today, within the 47 prefectures of Japan, there are 1,718 municipalities (cities, towns, and villages) as of 2023. Most of the local governments in municipalities, however, are insufficiently equipped with the necessary authority and financial resources to develop relevant policies. Very little is done to directly mobilize the engagement of citizens in the affairs and policymaking within municipalities (Igawa, 2008; Mayama, 2018), which furthers the disparity between big cities and towns and villages. To address these problems, the New National Spatial Strategy (National Plan: 国土形成計画) towards 2050, the seventh comprehensive plan, was approved by Japan's cabinet in 2015. In this plan, the promotion of an increased flow of people, goods, money and information between the rural and urban, described as "*active interaction*"[12] is perceived as a source

[9] https://www.who.int/news-room/fact-sheets/detail/ageing-and-health, last accessed on November 7, 2023.

[10] https://population.un.org/wpp/Graphs/DemographicProfiles/Line/900, last accessed on November 7, 2023.

[11] Among them, the population in the Tokyo Megalopolis Region made up of Tokyo and its three neighboring prefectures of Saitama, Chiba, and Kanagawa, constituted 29.38% of the total population (36.94 million) in 2020 (Statistics Bureau, 2020).

[12] Here, *active interaction* represents active flows of people, goods, money and information between regions with various characteristics. By compactly consolidating diverse functions necessary for living into certain areas and networking each area and creating multi-layered and resilient "compact and networked structure" nationwide, the governments believe they can steer the social and economic development throughout the country towards a well-balanced and sustainable way. The "compact city" approach aims at the more efficient use of resources. In relation to demographic change, it is often associated with reconstruction of a city with an efficient transportation system and concentration of municipal services to reduce local government costs. It does not require residents to move from the suburbs into the city center, but it is implied that such flows would follow as a consequence (Haga, 2018). For details about compact city, please refer to OECD's report,

of Japan's vitality. The employed solutions through this plan to demographic challenges will be further elaborated in Chapter 5.

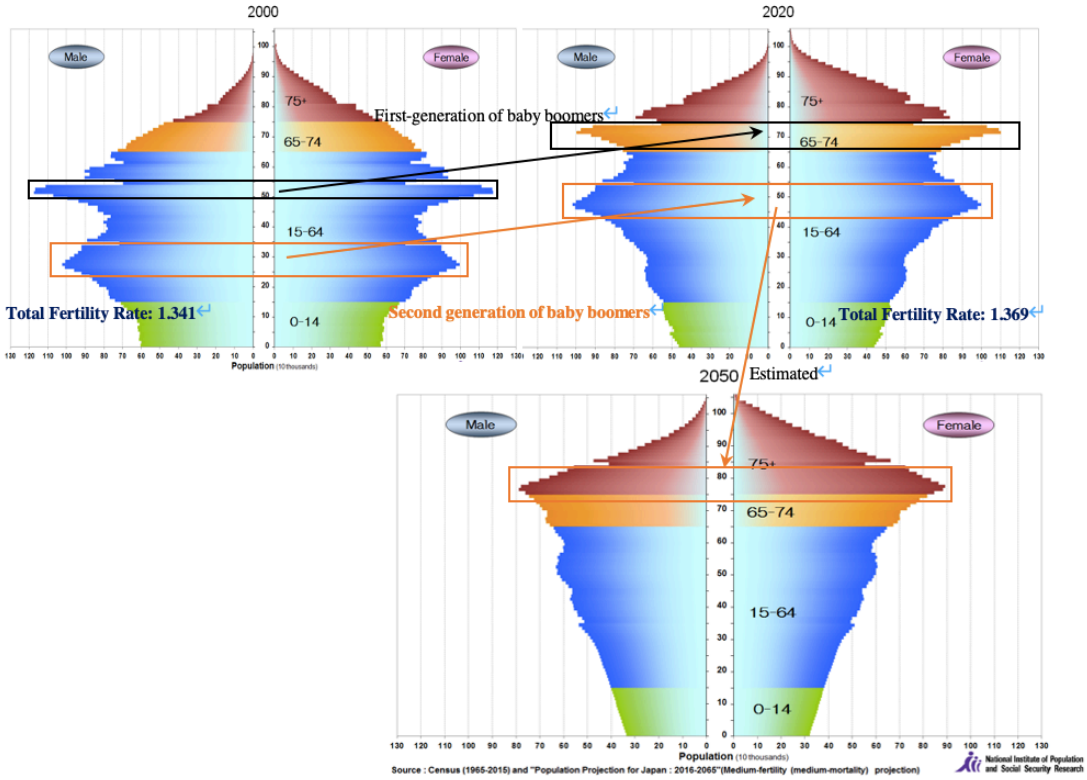

Figure 1-1 Population pyramid of Japan:2000, 2020 and 2050.

Notes: 1) The 2000 and 2020 data are based on the census. The 2050 data are based on medium estimates.

2) The first generation of baby boomers are those who were born between 1947 and 1949. The second generation of baby boomers was born between 1971 and 1974.

Source: The author modified based on the Statistics Bureau of Japan and the National Institute of Population and Social Security Research

"Compact City Policies: A Comparative Assessment"(https://www.oecd.org/greengrowth/greening-cities-regions /compact-city.htm, last accessed on August. 5, 2021).

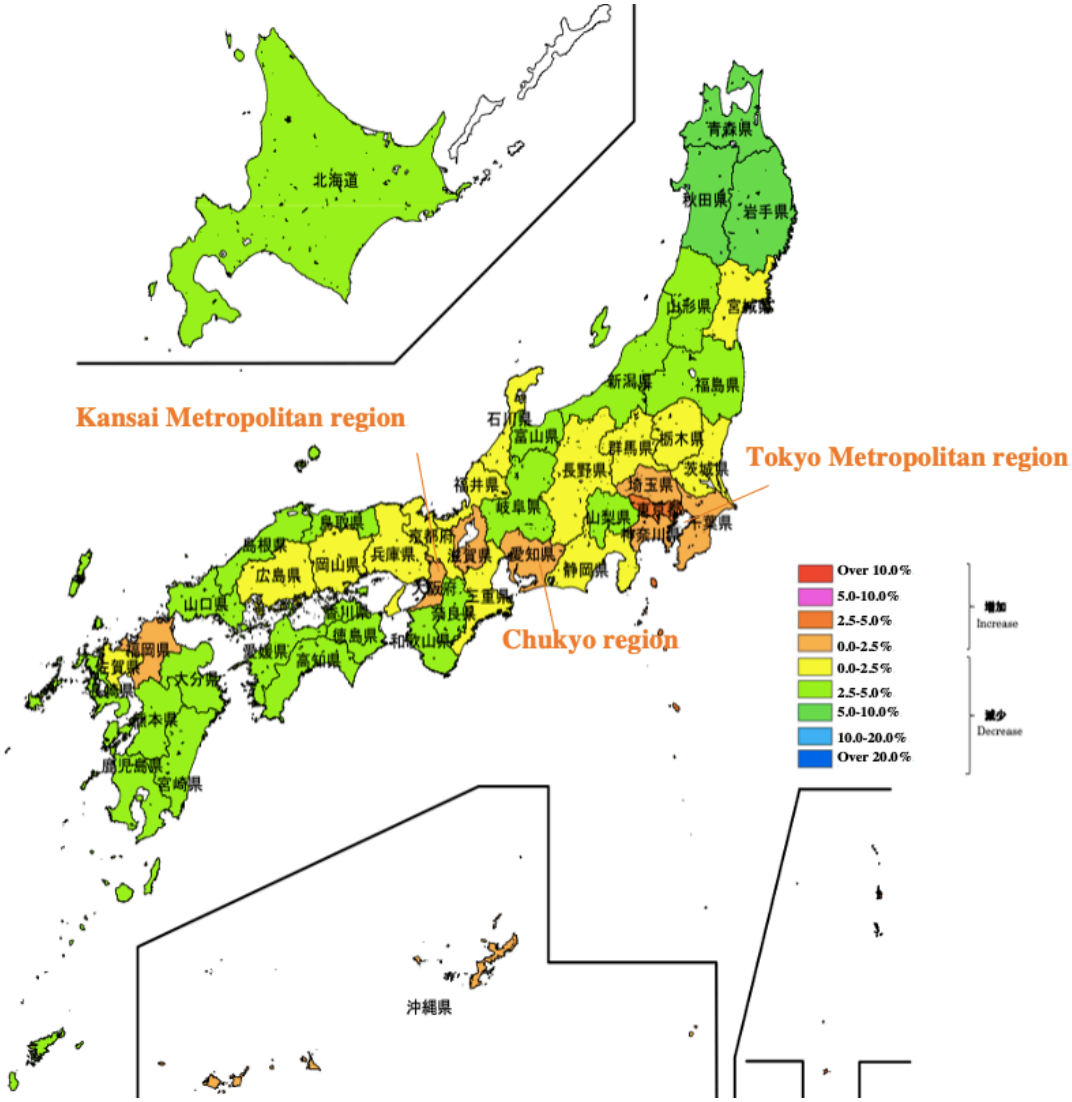

Figure 1-2 Rate of Population Change by Prefectures (2015, 2020)

Source: the author modified based on the Statistics Bureau of Japan and MLIT

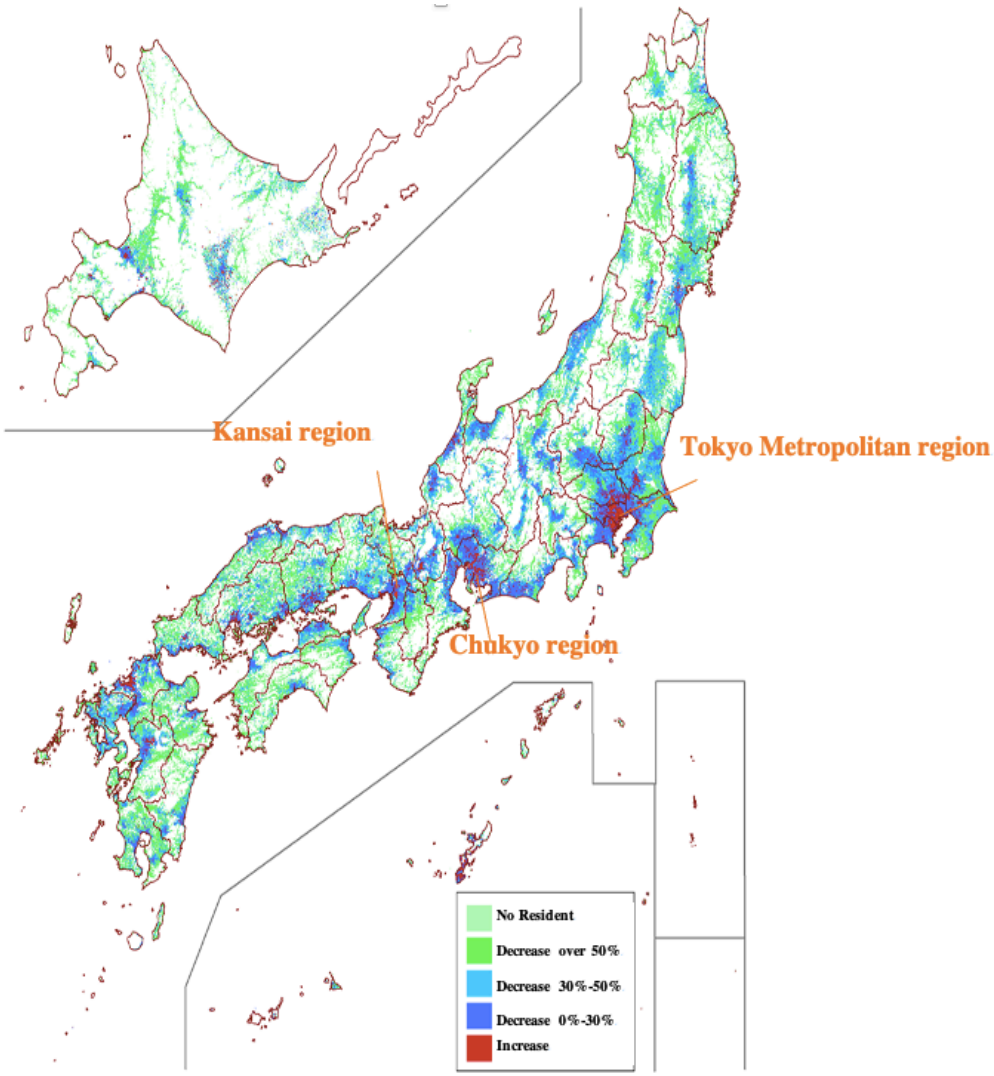

Figure 1-3 Estimated Rate of Population Change by Prefectures (2015, 2050)

Source: modified based on Statistics Bureau of Japan and MLIT (https://nlftp.mlit.go.jp/ksj/gml/datalist/KsjTmplt-mesh1000h30.html)

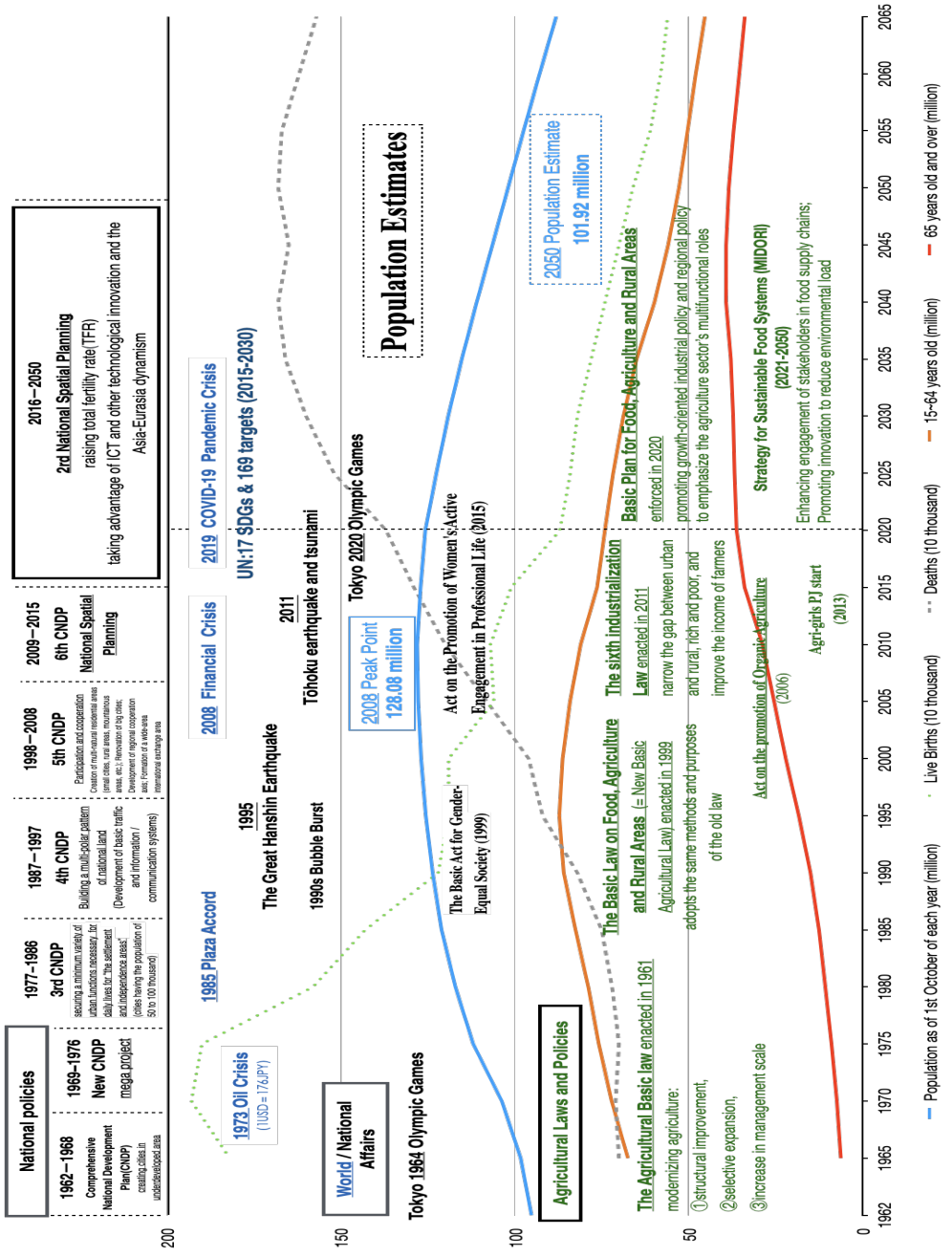

Figure 1-4 Demographic and socio-political changes in Japan (1962-2065)

Note: Agricultural laws and policies refer to Mishima (2004) and MLIT (2015).

Source: elaborated by the author based on the data of the Statistics Bureau of Japan and the National Population Institute of Population and Social Security Research.

1.3.2 Challenges in Rural Communities and Primary Policies

Major policies implemented by Japan's Ministry of Agriculture, Forestry, and Fisheries (MAFF) from the 1960s are summarized in Figure 1-4. With modernization and industrialization levered by the conventional development ideology in the 20th century, rural areas were abandoned or urbanized. In the same vein, Japan's Basic Agricultural Law enacted in 1961, aiming at modernizing agriculture through structural reform, selective expansion, and increase in management scale, was criticized for "abandoning poor farmers" or "paving the way for the import of farm products" (Mishima, 2004). Differently, MAFF enacted the new Basic Law[13], aiming to narrow the gap between urban and rural, rich and poor, and improve farmers' income. Ando(2019a) put forward two criticisms of the new Basic Law: the issue of the connection between rural policy and multifunctionality, and the inconsistency between rural policy and other agricultural policies, especially structural policies[14](pp.165-166).

Despite efforts to support rural municipalities, the demographic changes manifested more severely in the primary sector and rural areas. A projection based on the agriculture census in 2015, over 10% of the villages in Hokkaido, Ishikawa, and the prefectures in western Japan (e.g., Wakayama, Shimane, Yamaguchi, Tokushima, Ehime, Kochi, and Oita) will become marginal villages (Genkai shūraku: 限界集落, a village where more than 50% of the total population aged 65 and over) in 2045 (Hashizume, 2020). In particular, farmers are suffering from the lack of successors and labor, rising input prices, declining incomes, and shrinking domestic markets. Among the farmers, the number of females has been specifically decreasing (this challenge and the role of rural women will be further elaborated in Chapter 6). In addition to economic problems, the use of chemical fertilizers and pesticides, the growing number of abandoned farmlands, and the loss of wildlife habitat cause serious environmental issues. The direct payment system which helped to sustain hilly and mountainous areas has reached its limits when the problems faced by these communities have gone beyond the capacity of local communities to solve through the maintenance and management of local resources (Ando, 2019a).

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[13] The four basic principles are: (1) ensuring a stable supply of food, (2) demonstrating multifunctionality, (3) sustainable development of agriculture, and (4) promoting rural areas.

[14] "MURA" has been a stable organizational structure in rural areas in Japan for a long period of time. With the rapid economic growth along with the development of the off-farm labor market, farmers became part-time workers, and more and more people became non-farmers who owned land. This change led to a loss of homogeneity among farmers, as well as a loss of cohesiveness as a "MURA". For this reason, Japan's agricultural policy implemented a unique structural policy that promotes the concentration of farmland to farmers while reinforcing the restructuring of rural areas (Ando, 2019b, p.5). The first point is that the promotion of rural areas through agricultural promotion is not necessarily linked to the preservation and securing of farmland. The second point lies in that at the time the new Basic Law was enacted, it was becoming difficult to concentrate farmland in the traditional way, especially in hilly and mountainous areas. In addition, for the fulfillment of multifaceted functions, it should integrate not only those who exclusively engage in agriculture but also various actors such as "elderly farmers" and "agricultural production organizations" (Ando, 2019a, pp.165-166).

To address these challenges, a new Basic Plan for Food, Agriculture, and Rural Areas (BPFARA) was enforced in 2020, consisting of agricultural policy and regional policy, highlighting the agriculture sector's multifunctional roles beyond solving the problem of low food self-sufficiency ratio, achieving a more holistic sustainable rural community. Despite this trend, it is noteworthy that there is a divergent strain co-evolving for rural development policy. While rural development scholars put forward the importance of integrating sustainable community development in order to fulfill the multifunctional role of a sustainable primary industry sector, which was the goal of the new Agricultural Basic Act, as stated above (Zushi, 2020), more technology-oriented innovations, including smart agriculture (e.g., big data, AI, Internet of Things (IoT), information and communications technology (ICT)) and promotion of Digital Transformation (DX) in agriculture, have been highly promoted in the national and regional policies (MLIT, 2015).

1.4 Structure of Thesis

In **Chapter 2**, previous studies on SI are examined to ascertain the foundational understanding, progress, and discourses around SI, its practical implementation in the context of rural development, as well as three SI process models for transformation. **Chapter 3** outlines the theoretical and analytical framework by drawing on the perspectives of Terstriep et al. (2015), Sano (2020), Aoo (2022), and Riddell & Moore (2015) which serve as a foundation for investigating the structure of the SI ecosystem, and the scaling processes that form the analytical framework for this study. The analysis involves three steps aimed at understanding 1) the SI ecosystem as an outcome, including the economic and socio-political environments and the actors, 2) the SI ecosystem as a process, including the formation and growth, the interaction between institutional order, multi-level governance, and the roles of different actors during the implementation of scaling strategies, and 3) the facilitation or hindrance in the implementation that shapes the potential for bottom-up SI to transform society. The following three chapters present the findings pertaining to each case study. **Chapter 4** focuses on KOFA, an incorporated organic farmers' association, that addresses environmental and social concerns. **Chapter 5** examines Time for Agri, a social enterprise, that connects urban youth and rural communities through a community-based incubation approach. **Chapter 6** explores S100AP, a female farmers' network that emphasizes the solidarity and empowerment of women in agriculture and rural communities. In **Chapter 7**, all three cases are summarized to address three objectives and eight research questions. A comprehensive analysis of ten primary findings derived from the three SI ecosystems is discussed, examining the strategies adopted for implementation and scaling. The final concluding chapter (**Chapter 8**) presents five viable policy implications for future agricultural and rural development in Japan and recommends prospective for further study.

Chapter 2: Literature Review of Social Innovation Studies

This chapter aims to answer the question of how social innovation (SI) literature defines SI and theorizes its impact on social change, especially in rural development. The first section provides (1) an overview of SI research trends by examining the theoretical development of SI across multiple disciplines, from a global to a national scale; (2) a definition of SI in this study refined and articulated based on three characteristics; and (3) the exploration of SI's application in rural development studies. The remainder of this chapter introduces the concepts, applications and limitations of prominent scaling/diffusion models that explain the mechanism of SI to bring about societal transformation.

2.1 Background

2.1.1 SI Research in the West and Japan

Three Research Streams in the West

Social innovation (SI) is a driver of interdisciplinarity and trans-disciplinarity in scientific research (Moulaert et al., 2013) and in particular, there is a large accumulation of research in different fields of study such as social entrepreneurship (Dees et al., 2002), design (Manzini, 2015), technology (Christensen, 2013; Christensen & Bower, 1996), public policy (Heiskala & Hämäläinen, 2007), social movements (Mulgan et al., 2007), community development (Moulaert & Mehmood, 2020) and rural development (Neumeier, 2012; Bock, 2016). In addition, SI is regarded as a promising practical approach to solving environmental, social, and economic problems and to generate social change (Păunescu, 2014). In many national governmental bodies, regional policies and public funds, such as the White House Office of Social Innovation and Civic Participation[15] in the US (2009), the Horizon 2020 framework[16] in the EU, and Big Society Capital[17] in the UK, SI has been integrated and utilized as a new panacea to achieve sustainable

[15] The mission of the Office of Social Innovation is to advance opportunity, equality and justice by helping to create a more outcomes-driven government and social sector, https://obamawhitehouse.archives.gov/administration/eop/sicp, last accessed on September 22, 2023.

[16] Horizon 2020 was the EU's research and innovation funding programme from 2014-2020 with a budget of nearly €80 billion. https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020_en, last accessed on September 22, 2023.

[17] Big Society Capital is a leading social impact-led investor and aims to invest in tackling social issues and inequalities in the UK. https://bigsocietycapital.com/, last accessed on September 22, 2023.

development, guaranteeing social inclusion, and resisting social inequalities while achieving economic growth (Bock, 2016).

Despite popular implementation in academia and policies, a definite consensus and precise understanding of the concept of SI continues to be lacking among scholars and policymakers (Tanimoto, 2006; Bock, 2013; Moulaert, (Ed.), 2013; Aoo, 2018b). As shown in Table 2-1, SI has been defined as "the design and implementation of new solutions" by the OECD LEED Forum on Social Innovations[18], "the process of developing and deploying effective solutions" by the Center for Social Innovation at Stanford Business School in the US, "innovative activities and services" by The Young Foundation in the UK, "a complex process of introducing new products, processes or programs" by the Waterloo Institute for Social Innovation and Resilience at the University of Waterloo in Canada, and "a novel result that rely on the entrepreneurs' creativity and various SI stakeholders" by Tanimoto Kanji in Japan.

Table 2-1 Diverse Definition of Social Innovation

Affiliation/Scholar	Definition of SI
The OECD LEED Forum on Social Innovations (France, Italy, Spain, Canada, the US, and Mexico)	The design and implementation of new solutions that imply conceptual, process, product, or organizational change, which ultimately aim to improve the welfare and well-being of individuals and communities.
Center for Social Innovation at Stanford Business School in the US Phills, Deiglmeier & Miller (2008)	The process of developing and deploying effective solutions to challenging and often systemic social and environmental issues in support of social progress
The Young Foundation in the UK Mulgan et al. (2007), p.8	Innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose primary purposes are social
Waterloo Institute for Social Innovation and Resilience at the University of Waterloo in Canada Westly and Antadze (2010), p.2	A complex process of introducing new products, processes or programs that profoundly change the basic routines, resource and authority flows, or beliefs of the social system in which the innovation occurs. Such successful social innovations have durability and broad impact
Business and Society at School of Commerce, Waseda University in Japan Tanimoto (2006)	A result that does not merely rely on the entrepreneurs' creativity but on the various SI stakeholders including customers and users

[18] The OECD LEED Forum on Social Innovations was created in Washington DC together with 11organizations from six countries including France, Italy, Spain, Canada, the US, and Mexico in order to fully tap the potential of SI and to support public, non-profit and private actors to co-construct and implement socially innovative solutions and thereby contribute to address socio-economic issues, build stronger territorial resilience and better respond to future shocks. https://www.oecd.org/cfe/leed/social-economy/social-innovation.htm, last accessed on September 22, 2023.

Source: Summarized by the author.

These divergences in the conceptualization of SI originated from diverse SI theory traditions in various regions. Three main perspectives have dominated SI studies since the 2000s (Tanimoto et al., 2013). First is the business schools in the United States which focused on technical/business innovation (Pol & Ville, 2009) in the sense that production efficiency is thought to be inextricably tied to sustainability[19], and its measurement and evaluation of the impacts on societies (e.g., Christensen & Bower, 1996; Christensen, 2013). They later shifted to examine the business-led social enterprises and non-profit organizations solving social issues through various activities in the markets (Dees et al., 2002). The second perspective comes from SI theory in Europe (including the UK) , which diverges from the business and technology-oriented innovation theory tradition in the US (Aoo, 2018b). From a national/macro-level perspective (Tanimoto et al., 2013), mainly European institutionalist scholars have explored the role of SI in the improvement of economic and social dimensions through reforms of the public system in areas such as welfare, education, and medical care (e.g., Borzaga & Defourny, 2004; Heiskala & Hämäläinen, 2007). The third is regarding the mechanism of creation and the processes of SI in addressing social issues through civic activities beyond markets from a community-level perspective (e.g., Mulgan et al., 2007; Phills et al., 2008; Westley and Antadze, 2010, Moulaert et al., 2013). The divergences of SI theory in the former two schools showcase the different research foci under institutions in different societies, as well as a lack of communication among scholar in these regions in the early period (Aoo, 2018b). The diversity of SI research originating from different schools categorized in the third perspective suggests that the trends in SI scholarship over the last decade have shifted toward convergence. Despite this, trend the focus in the US SI research remains to be on for-profit social enterprises and “heroic social entrepreneurs” (Aoo, 2018b). As a result, SI theory has evolved in the following directions: (1) differentiating SI from business-technology innovation (Moularet et al., 2013); (2) extending its focus from the merely "micro" (i.e., individuals and individual organizations) to the multilayered "macro" (i.e., countries and societies) (Westley and Antadze 2010; Howaldt et al. 2014; Cajaiba-Santana 2014); and (3) emphasizing roles and relationships between various stakeholders including government, business, and civil society, as well as social enterprises and NPOs/NGOs (Aoo, 2018b, p.114). Furthermore, SI has developed a clear ethical tendency toward social inclusion, while at the same time fighting the regime that seeks to strengthen situations of social exclusion alongside the restructuring of power relations (Moulaert, et al., 2007). These scholars place particular emphasis on improving

[19] The Brundtland Commission of the United Nations defined sustainability in 1987 as meeting the needs of the present without compromising future generations' ability to meet their own needs.

the well-being of marginalized populations by transforming problematic institutional environments that generate inequality and exclusiveness (Bock, 2012; Moulaert(ed.), 2013).

> *"(SI ought to) find acceptable progressive solutions for a whole range of problems of exclusion, deprivation, alienation, lack of wellbeing, and also to those actions that contribute positively to significant human progress and development. SI means fostering inclusion and well-being through improving social relations and empowerment processes: imagining and pursuing a world, a nation, a region, a locality, a community that would grant universal rights and be more socially inclusive* (Moulaert ed., 2013, p.16)."

SI Studies in Japan

Despite Japanese SI research having been heavily influenced by the Western SI literature (Kimura, 2018), it has contributed little to the progress of international SI research over the past two decades. In Japan, SI research has been dominated by both the market-oriented perspectives of US business schools (Dees et al., 2002; Christensen, 2013; Christensen & Bower, 1996; Tanimoto et al., 2013) and the perspective of European institutional traditions rooted in social democracy (Borzaga & Defourny, 2004; Heiskala & Hämäläinen, 2007; Fujii et al., 2013). However, the socio-political context in Japan has led to SI research reaching a uniquely common conclusion, which emphasizes the crucial role of both public-private partnerships (PPPs) and entrepreneurial leadership in SI practices (Kimura, 2018). This is, despite starting from two distinct schools of SI theory embedded in either neo-liberalism or "the Third Way (Giddens, 1998)". This trend is understood as resulting from the "welfare (厚生)" tradition shaped by Japan's social policies[20] since the 1980s (as referenced in chapter 1). As such, Kimura reckons that SI research in Japan cannot simply be categorized as a sub-stream of any existing SI research but is an independent research field with its own unique characteristics that differs from the origins that influenced it (Table 2-2). In this sense, SI research in Japan has great potential to contribute and complement the current knowledge in the West with its rich empirical work.

Table 2-2 SI Study Streams

SI Study Streams	Social Rationale	Rationale Substance	Requirements for SI	Theoretical foci

[20] The social policies in the 1980s have consistently promoted administrative reform through deregulation(規制緩和), transfer of financial resources to local governments(地方への財源移譲), and outsourcing contracts to the private sector (民間への委託契約).

Business School: Entrepreneurship Theory in US (Dees et al., 2002; Christensen, 2013)	Market-oriented/ neo-liberalism	Aspiration to solve social issues, strong social mission, addressing societal challenges at the individual level	Development and diffusion of "novel" business, change and formation of the market	Education through case studies, SI process model, Technical aspect of social business
Social Policy School: Social Enterprise Study in Europe (Borzaga & Defourny, 2004; Heiskala & Hämäläinen, 2007)	Social democracy/ the "Third Way"	Community, participation of citizens, Pluralistic economy-based organizations	Changes in social system, social relationships, and communities	Construction of hybrid structured social enterprises, measurement of social impact, legitimization of social enterprises
Japanese SI studies (e.g., Tanimoto et al., 2013; Fujii et al., 2013; Aoo, 2018b; Kimura, 2018)	In between Neo-liberalism and social democracy	Both rationales of two Western schools+ unique welfare (厚生) tradition in Japan	PPPs between governmental bodies and private or civil society actors; entrepreneurship	SI creation and diffusion process model, "Heroic entrepreneur", Quite few: link the micro to the macro (scaling out/up)

Source: elaborated by the author based on Kimura (2018) and Aoo (2018).

Factors that have contributed to the minor role SI research in Japan has played in the progress of international SI discourse has been summarized by the following three reasons: 1) Japanese scholars have few academic contacts with both the European and U.S. schools and are merely strongly influenced by the US innovation literature, which focuses on business and technology; 2) scholarship in Japan have predominantly focused on analyzing cross-sectoral collaboration and changes in stakeholders' values and behavior patterns in individual cases (i.e., micro-oriented and case-focus), rather than thoroughly examining SI in the context of society as a whole; and 3) the tendency to treat the concept of SI as a buzzword that can be applied interchangeably with social business and social investment (Aoo, 2018b, p.114). In addition to academia, policymakers in the realm of politics in Japan also differ from their US and European counterparts. The Japanese government has mostly referred to the concept of SI in the early US tradition and has only shown significant interest in the last few decades in using social business and investment to revitalize local communities and promote economic growth (c.f., Zhao and Li, 2016).

Since the SI boom, which started around 2015, however, there has been an emergence of new theoretical developments and a convergence of knowledge institutions

on SI in Japan. Examples include the Social Innovation Laboratory Kyoto[21] in 2015, the Yokohama City Open Innovation Promotion Office in 2017, and the SI Creation Center at Nagano Prefectural University in 2018. As a result, SI literature in Japan has progressed both theoretically and empirically to fill the research gaps pointed out by Aoo (2018) (cf. Figure 2-1). One notable reflection is the 27 doctoral theses written on SI (out of a total of 36 SI literature in Japan[22]) at Doshisha University between 2011 and 2021, some of which focused on community-level SI initiatives (linking micro to macro) from a broader, multilayered social perspective (e.g., Watanabe, 2011; Sano, 2020; Morita, 2021; Matsubara, 2021).

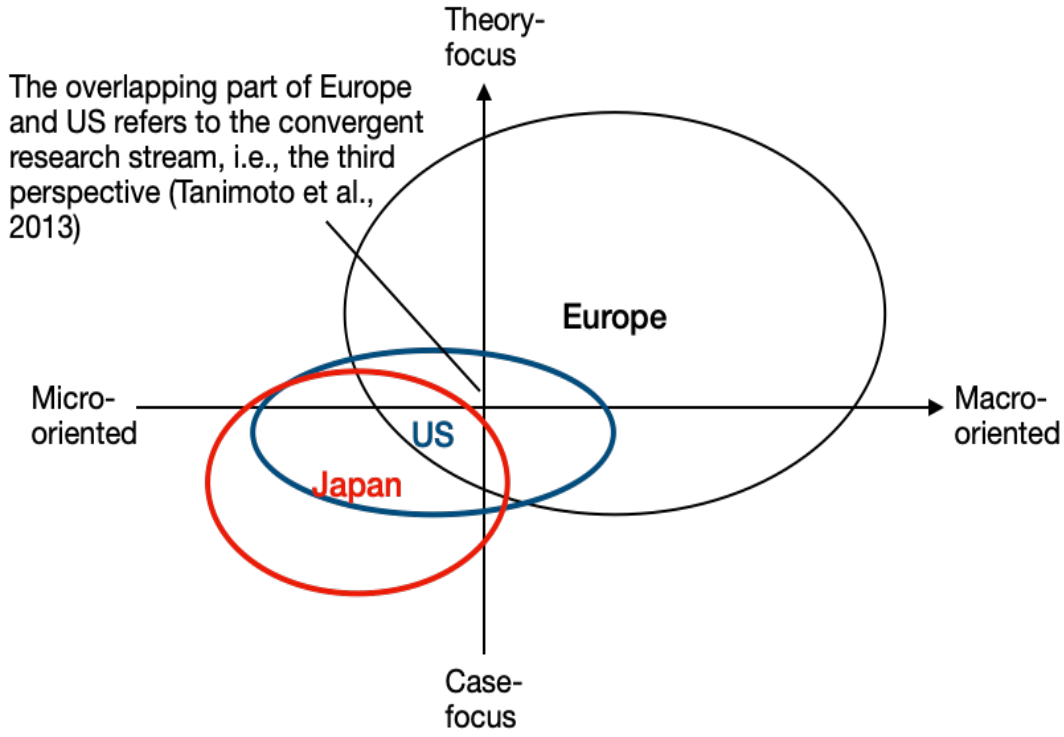


Figure 2-1 The SI studies tendency in Europe, the US and Japan

Note: the circle of Japan extends toward theory-focus and macro-oriented ends compared to the original version

Source: the author modified on Aoo (2018, p.115).

[21] It aims to cultivate social businesses through its consultation and training programs supported by Kyoto City government, local entrepreneurs and Social Innovation Course at Doshisha University.

[22] The author searched social innovation and "ソーシャル・イノベーション" as keywords in CiNii and gained 59 results (1991-2023). After excluding the overlapping and the evident irrelevant studies mainly about technological innovation and a scan of the title and abstract, 36 results remain.

Typologies of SI in Japan

The most influential SI studies have been led by Omuro and Tanimoto (most notably Omuro, 2009; Tanimoto, 2006; Tanimoto et al., 2013). Aoo Ken criticizes that most of the SI literature tends to follow Tanimoto et al. (2013) and simply focuses on the role of non-profit and for-profit social enterprises and social businesses, neglecting the diverse forms of SI (2018b). Furthermore, Kimura (2015) criticizes the "superhero hypothesis" touted in academia, whereby entrepreneurs (in some cases portrayed as superheroes) alone can bring about community revitalization. Instead, he stresses that SI is not about charismatic leaders and their passion, but a process of changing values through changing social structures and mobilizing more engagement of stakeholders to solve societal challenges (Kimura, 2015, p.13).

Accordingly, Kimura (2018) categorized SI in the Japanese context into three typologies. The first type of SI emphasizes the role of social entrepreneurs in providing novel solutions to social challenges that cannot be resolved under existing social policies. The usual course for scaling out such type of SI is that scholars first recognize and highlight some successful SI initiatives, which is then legitimized by administrative government actors through PPPs or other methods. The second type is where governments come up with novel policies that promote their collaborations with NPOs (i.e., the third sector) and private sector actors to help municipalities solve social challenges in the face of austerity measures. The third and last type is top-down governance reform with partial civic engagement, as was seen in policy reforms in the 1980s. The first type of SI (which Kimura terms the Japanese type) is, according to his typology of SI, the only one that applies a bottom-up approach.

2.1.2 SI Definition

As mentioned in the previous subsection, there lacks a definite consensus and precise understanding of the concept of SI. Despite the converging streams of SI scholarship within the European SI research projects (Terstriep, Rehfeld & Kleverbeck, 2019) that highlight SI's societal and economic value rather than technology-oriented innovation, they have different definitions of SI. Well-known research projects include SIMPACT[23] ("Boosting the Impact of Social Innovation in Europe through Economic Underpinnings"), SI-DRIVE [24] ("Social Innovation: Driving Force of Social Change", 2014-2017),

[23] SI refers to "novel combinations of ideas and distinct forms of collaboration that transcend established institutional contexts with the effect of empowering and (re)engaging vulnerable groups either through the innovation process or as a result of it" (Terstriep et al., 2015, cited in Terstriep and Pelka, 2016, p.4).

[24] SI is defined as "a new combination of social practices in certain areas of action or social contexts with the goal of better satisfying or answering social needs and problems than is possible on the basis of existing practices" (Howaldt et al., 2014, cited in Terstriep and Pelka, 2016, p.4). SI-DRIVE's five key dimensions are

CrESSI[25] ("The Creating Economic Space for Social Innovation", 2014-2018), TEPSI[26] ("Theoretical, Empirical and Policy Foundations for Social Innovation in Europe", 2012-2015) and TRANSIT[27] ("TRANsformative Social Innovation Theory", 2014-2017)[28] (Pelka and Terstriep, 2016; Aoo, 2018b). For example, SIMPAC's SI is specifically targeted at improving the well-being of vulnerable groups in society while SI-DRIVE's SI is more abstract and open, meaning "social practice" for all stakeholders.

For the purpose of this thesis, three characteristics of SI can be highlighted from the aforementioned definitions. First, SI is both a process and an end (Murray et al., 2010; Terstriep et al., 2015), and results in intangible social asset-building, and sometimes tangible economic outcomes (Neumeier, 2012). The intangible nature of SI renders its emergence and results hard to predict. On the one hand, SI per se may be an unintended outcome of ongoing engagement, which ultimately leads to behavioral and intangible changes in actors (Chen et al. 2022). On the other hand, the transformed institutions may not be visible at present or may not be represented in empirical cases in their early stages of their development (Kluvankova et al., 2021). Furthermore, with the development of technology, virtual communities constructed through social media have sharpened the intangibility of social relations that also appear in social innovation initiatives (Terstriep, et al., 2015).

Second characteristic of SI is that, the social dimension is regarded as a core element of innovation in the current socioeconomic systems. In this sense, SI highlights the reconfiguration of social practices in response to societal challenges while enhancing

concepts, social need, resources, governance/actors, and process dynamics.

[25] SI refers to "the development and delivery of new ideas and solutions (products, services, models, markets, processes) at different socio-economic levels that intentionally seek to change power relations and improve human capabilities, as well as the process via which these solutions are carried out" (Houghton Budd, Naastepad & van Beers, 2015, cited in Terstriep and Pelka, 2016, p.4).

[26] SI are "new solutions (products, services, models, markets, processes etc.) that simultaneously meet a social need (more effectively than existing solutions) and lead to new or improved capabilities and relationships and better use of assets and resources. In other words, social innovations are both good for society and enhance society's capacity to act" (The Young Foundation, 2012, cited in Terstriep and Pelka, 2016, p.4).

[27] SI means "new services, practices or ideas at the micro-level of niches, whereas system innovation refer to change of dominant institutions and practices, i.e., regimes" (Avelino et al., 2014, cited in Terstriep and Pelka, 2016, p.4).

[28] The author takes 5 most famous projects as examples out of 17 projects received funding from the EU's Seventh Framework Programme (2007-2013) for research, technological development and demonstration in in Pelka and Terstriep (2016). https://ec.europa.eu/commission/presscorner/detail/de/MEMO_16_146, last accessed on September 20, 2023.

The impetus for the EU's SI policy came from the European debt crisis that began in the late 2000s. As countries adopted fiscal austerity measures, they focused on SI as a response to various social issues, including the large influx of refugees and immigrants, social integration, and the widening of social divisions and disparities, such as the worsening unemployment among the young (Hubert 2012: v-vii cited in Aoo, 2018bb, p.107).

outcomes on societal well-being (Mulgan et al., 2007; Phills et al., 2008; Westley et al., 2009; Howaldt et al., 2014; Polman et al., 2017). In particular, SI is expected to improve social conditions and human well-being through "creativity, awareness and commitment of all citizens, civil society organizations, local communities, businesses and public servants together" (Păunescu, 2014). In addition, SI's social dimension "presupposes a critical attitude towards the existing systems and their inherent failures, as well as a search for social justice and the public good" (Bock, 2012, p.62). Thirdly, different norms, cultures, histories, and traditions shape different, even contested, values about social justice and the public good. The plurality of values in different societies and groups of people makes what should be changed by SI, and how it should be changed controversial and tied to the context where SI takes place. In other words, the process of SI may also induce conflicts among beneficiaries, sometimes resulting in trade-offs for certain groups of people (Polman et al., 2017). Thus, SI is path-dependent and context-dependent (Moulaert et al., 2013), which is also the case for their impacts on communities and individuals also being case by case.

In summary, SI is defined by its three key characteristics: (1) it is both a process and an outcome (Murray, Caulier-Grice& Mulgan, 2010), often intangible (Neumeier, 2012) and not necessarily bound to a physical space (Terstriep, Kleverbeck, Deserti, & Rizzo, 2015); (2) it reconfigures social practices (i.e., novelty) and also meets social needs and enhances societal well-being through collective action and civic engagement (Mulgan, Ali, Halkett & Sanders, 2007); (3) it is path-dependent and context-dependent (Moulaert (Ed.) 2013).

2.1.3 SI in Rural Development Studies

Since 1975, several paradigm shifts have occurred in rural development studies in the European context: from sectoral to territorial perspectives, and from exogenous development (top-down) approach to endogenous strategies (bottom-up approach). The endogenous development theory (内発的発展論, EDT) is based on the insight that it is local actors who know best which problems are most crucial and urgent in the region concerned and which activities need to be undertaken. Since the 2000s, a neo-endogenous model has become widely accepted, with bottom-up dynamics focusing on the supportive role of actors in the extra-regional environment, such as political and administrative actors, rather than contesting the integrity of local actors (Ray, 2006). While rural development studies in Japan have also produced (neo-)endogenous theory, the unique contexts lead to divergent practices, such as the creation of *Kankei-jinkou (*related population), who are expected to bridge the urban and the rural, through "community-reactivating cooperator squad (地域おこし協力隊)", PPPs, and outsourcing contracts to the private sector (Odagiri, 2013).

SI is often utilized as a buzzword or a concept that complements the existing approaches rather than a comprehensive theory, in the early stages of the rural development literature. Neumeier (2012), as one of the earliest researchers who legitimized SI in rural development scholarship, defines SI from a micro-level perspective as "a change in the attitudes, behaviors, or perceptions of a group of people who join a network of aligned interests that are related to the group's horizon of experience, leading to the group's new and improved ways of acting cooperatively, both internally and externally"(Neumeier, 2012, p.55). He presents a three-stage SI process model (i.e., problematization, expression of interest, and delineation and coordination) following the prevailing tradition of business and technology-oriented innovation research, and states that a lack of SI is often one of the factors strongly impeding the vitality and further development of rural communities in developed democratic, capitalist, and industrial countries. Through an actor-oriented network (micro-level) approach, his subsequent research focuses on the factors underpinning SI and casts doubt on the possibility that SI can be initiated or steered from the top down, i.e., institutionalized (Neumeier, 2017). These early works on SI in rural development by Neumeier, including the ideas of actor constellations (micro-level perspective) and internal versus external, and process models (blurring the distinction between "social innovation" and "business and technology-oriented innovation"), had a profound influence on subsequent research on SI in rural development (e.g., Nordberg et al., 2020, Vercher et al., 2021; Chen et al., 2022). From a broader regional level perspective, Bock (2012) defines SI as an initiative that has "social" characteristics in its mechanism (i.e., it evolves in the social sphere), objective (i.e., it is desirable for actors involved), and scope (i.e., it has the potential to change society). She proclaims that, compared to other rural development approaches, rural SI is distinctive in its dependence on civic self-reliance and self-organization due to austerity measures and state withdrawal, and in its cross-sectoral and trans-local collaborations. Instead of SI, however, she presents a "nexogenous development" approach (i.e., going beyond the initial idea of exogenous versus neo-endogenous) as a driving force to reconnect socio-political domains and revitalize marginalized rural areas (Bock, 2016).

In Japan, SI scholars and rural development scholars have both increasingly focused on the role of SI in transforming rural societies into more sustainable ones. SI scholars either have misused SI as technology-oriented or business innovation (cf. the criticism in Aoo, 2018b) or often focused on regional/community development based on urban/town development theory rather than specifically focusing on rural areas (cf. Li, 2016, e.g., Kimura, 2015; Aoo, 2022). However, rural communities are quite different from urban and suburban areas in light of their development history and socio-political contexts. Fortunately, rural development scholars as experts on rural societies have recently begun to integrate SI theory with their existing approaches. For instance, some scholars

associate SI with the multistakeholder governance for de-growth transformation (Akitsu, 2022), while others seek to integrate it with existing (neo-)endogenous theory surrounding young migrants and "related populations" (Tsuru, 2022; Nikaido, 2022) and other rural development approaches (Odagiri, 2022). However, these attempts remain at an early stage in organically and effectively integrating SI theory into rural development studies in Japan. In summary, although Japanese scholars all agree upon the importance and potential of SI in rural revitalization/development, most of their understanding and research attempts have been left out of the latest SI theory, either reducing SI to a mere analytical tool or a complementary concept of existing rural development approaches.

On the contrary, in international rural development studies integrating SI, despite some empirical works applying SI as a simple analytical framework to examine alternative initiatives including rural digitalization (Fahmi & Arifianto, 2022), AFNs (de Souza et al., 2023; Spitzer & Twikirize, 2021; Zoll et al., 2021), and rural governance (Franklin et al., 2017; Georgios & Barraí, 2021), most of the recent studies are approaching the convergent streams of research in SI studies as elaborated in the previous subsections. They contribute to theoretical developments in the role of SI in transforming society in terms of mechanisms, actors and processes. Research topics include impulse (de Fátima Ferreiro et al., 2023; Noack & Federwisch, 2019; O'Shaughnessy et al., 2023; Steiner et al., 2021), scale-up (Castro-Arce & Vanclay, 2020), changing actors narratives (Vercher et al., 2021), the role of diverse actors (Alberio & Moralli, 2021; Chen et al., 2022; Jungsberg et al., 2020; Nordberg et al., 2020; Richter & Christmann, 2021), process (Kluvankova et al., 2021; Rogelja et al., 2023; Stoustrup, 2022) and diffusion (Baxter, 2021). The next section elucidates some of these works that employ the prominent scaling/diffusion models that explain the mechanisms by which SIs bring about social transformation.

2.2 SI Transforming Society

Approximately 33% of the SI studies displayed in the Global Mapping of SI were focused on achieving systemic change (Howaldt et al., 2016). The theoretical framework proposed by Anthony Giddens in his Structuration Theory[29] (1984) has been widely employed as a foundational basis for research related to social transitions. Recently, in the same vein, both transition studies and SI research have proposed that innovations occurring at the

[29] The Structuration Theory, proposed in 1979 and further developed in 1984, posits that the concept of "structure" encompasses a set of rules and resources that enable the organization and coordination of social systems in terms of time and space. This structure is not only a means of facilitating social practices, but it is also a result of the ongoing reproduction of these practices by individuals or groups, who rely on their internal cognitive processes, referred to as "memory traces," as well as their external social actions. This "structure-agency" theory has been widely accepted and adapted in the subsequent transition and SI literature.

niche level must affect larger scales in terms of spatial dimensions and institutional aspects, involving alterations in resource flows, laws, norms, and social connections in order to produce a more comprehensive systemic effect (Moore, Riddell, & Vocisano, 2015). The dynamics of transition depend on how SIs navigate existing regimes, with particular emphasis on whether they aim to comply with or change these regimes (Smith and Raven, 2012). Fundamentally, the main distinctions between the early literature on transition and the latest literature on SI are rooted in epistemological and ontological perspectives regarding the transformative outcomes of SI. The former perspective views SI as a means to support neoliberalism, while the latter perspective sees SI as a fundamental basis for alternative societal visions that challenge neoliberalism (Moulaert et al., 2013, p.11). In contrast to the initial understanding of innovation in the context of business and technology, as observed in the literature on strategic niche management (Rip and Kemp, 1998) and multi-level perspectives (Geels and Schot, 2007), scholars in the field of SI studies have developed their own theoretical framework on the concept of "scaling". This is because they believe that the potential for revolutionary impact of SI in the academia lies in its ability to effectively scale up and instigate changes within governance structures (Castro-Arce and Vanclay, 2020). In recent research on SI, two prominent process models have emerged as dominant frameworks: the quadruple helix model and the six-stage process model.

First, from a theoretical standpoint grounded in knowledge and agency, the transformation of innovation system can be elucidated by examining the knowledge infrastructure that encompasses hybrid organizations situated at the intersections of overlapping institutional domains within the triple helix model (university-industry-government). This conceptual framework, as proposed by Etzkowitz and Leydesdorff (2000), offers insights into the dynamics underlying this process. Due to the increasing significance of users and other stakeholders from civil society in the field of innovation research triple helix model has been extended to encompass a quadruple helix model. This extended framework incorporates actors from academia, industry, government, and civil society (McAdam & Debackere, 2018). Similarly, in the field of rural development studies, some scholars have argued that the quadruple helix model has the potential to enhance our comprehension of the diverse formal and informal mechanisms through which SI contributes to the development of rural areas (Nordberg et al., 2020). Nevertheless, it should be noted that, as by Terstriep et al. (2022) point out, the scope of this model is limited to the organizational level rather than the broader regional level.

Second, Murray et al. (2010) put forth a six-stage model that adopts a SI-centered perspective. This model illustrates the lifecycle of SI, with each stage necessitating different resources and actors. The stages include: (1) identifying the need for SI; (2) generating proposals and developing idea; (3) prototyping and testing in practical

settings; (4) sustaining ideas through integration into everyday practices; (5) scaling innovation; and (6) effecting systematic change. The presented approach to the transition process of the SI demonstrates a systematic and continuous progression from its initiation to its ultimate influence. As depicted in the lower section of Figure 2-2, several studies in the field of rural development reserach have also formulated their analytical framework by reference to the foundational six-stage model (e.g., Castro-Arce & Vanclay, 2020; Kluvankova et al., 2021). For example, from a multi-layered perspective (international, national and local level), Kluvankova et al., (2021) proposed four divergent development paths and concluded that SI could change the roles and interrelationships of markets, states and civil society in the social transformation triangle (i.e., regime or system). Castro-Arce and Vanclay (2020) emphasize the important role of bottom-linked governance mechanisms in facilitating the contribution of SI to the transformation of socio-ecological development. This contribution is achieved through the implementation of a six-stage process model. The capacity to expand, implement on a larger scale, and integrate into a multi-level governance framework is considered by proponents to be essential for improving sustainability outcomes. The aforementioned models adopt a linear and sequential logic, leading to the conclusion that merely specific types of SI facilitate bottom-up linked governance, and subsequently lead to sustainable and revolutionary regional development. The dynamic and "agency" aspect of development, however, is overlooked. It fails, for instance, to account for the power relations encountered by different individual actors, and trade-off decisions made in the growing process of SI, specifically, during the implementation of scaling up and rolling out.

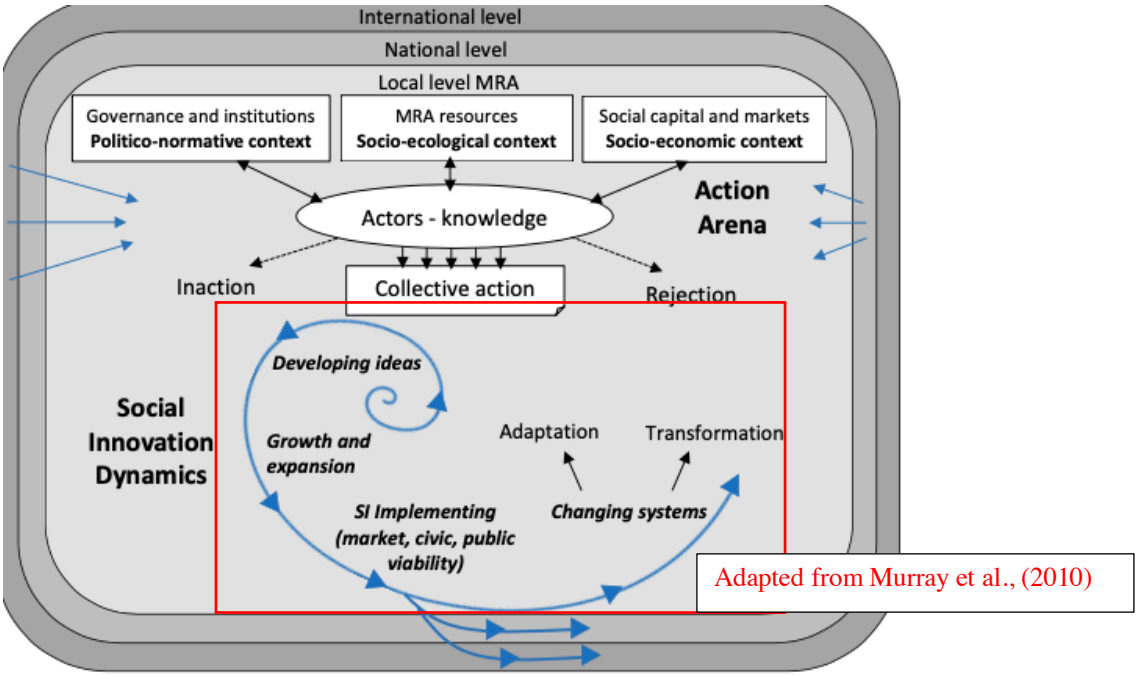


Figure 2-2 A multilayered framework of the SI mechanism for transformation

Source: Modified on Kluvankova et al., (2021)

In Japan, a prevailing model of the creation and diffusion processes consists of two phases and four distinct stages. These stages include (1) identification and acknowledgment of societal challenges; (2) development of social enterprises; (3) support from the market society; and (4) diffusion of these initiatives through social connections and institutions (Tanimoto, 2006). According to Tanimoto et al. (2013), the development and diffusion of SI depends on an inclusive process of interactions within a sphere of potential communication and mutual learning among many stakeholders of SI. They emphasize that the responsibility for SI should not rest solely on the shoulders of entrepreneurs (p. 23). In essence, the SI process entails social entrepreneurs initially identifying prevalent social concerns, subsequently acquiring ideas and resources, and ultimately developing and disseminating SIs through collaborative efforts with relevant stakeholders. Nonetheless, current models of SI encounter certain challenges, as their scalability is influenced not only by the capacity, resources, and influence of SI itself as well as the attitudes of stakeholders, but also by institutional practices that shape human behavior and subsequently impact the institutional framework (Cajaiba-Santana, 2014, p.47). The process models proposed by Murray et al. (2010) and Tanimoto (2006) do not provide a clear explanation of how and to what degree a single SI might affect and transform the "institutional structure". Therefore, rather than relying on a linear process model, it is necessary to adopt a new epistemological framework in order to comprehend the

interplay between institutional order, multi-level governance, and the facilitation or hindrance of SI implementation. Furthermore, this framework should account for the intricate interactions among actors involved in SI at various levels (Terstriep et al., 2015). Over recent years, the SI ecosystem perspective and scaling frameworks have garnered considerable interest from researchers in the field of SI as a means to bridge the gap in existing research. These approaches aim to establish organic linkages between the micro-level of SI and the macro-level of the social systems[30] (Terstriep et al., 2015; Sano, 2020; Aoo, 2022). The next chapter further discusses the analytical tools based on ecosystem perspectives and provides a framework modified by the author.

[30] Aoo (2018) defines the macro level of SI as including the social system, which comprises elements such as social recognition, values, norms, behaviors, rules and regulations, as well as power/resource distribution and interactions among players. The meso level of SI encompasses the examination of organizational procedures and activities, as well as the relationships between various stakeholders. Micro-level SI is characterized by the emergence of novel ideas and behaviors at the individual level.

Chapter 3: Theoretical and Analytical Framework

This thesis employs innovative theoretical frameworks from Canadian academic institutions to analyze Japanese cases, with the aim of contributing to the ongoing debate on SI theory within the "convergent research stream" (referred to in Chapter Two) emanating from North America and Europe. An emerging academic trend in the field of SI studies incorporates epistemological principles from the realm of ecology, along with the predominant paradigm of a linear and structured framework that connects the micro and macro levels. This chapter describes the analytical perspective that encompasses the various aspects of the SI ecosystem. The final section of this chapter introduces a scaling model that aims to provide insights into the dynamics of social influence within each ecosystem.

3.1 A Dynamic Ecosystem Theoretical Lens

SI is anticipated to generate new ideas and solutions, but it does not arise in isolation. Prior to the emergence of SI, several systems were established through the implementation of laws, rules, conventions, technological advances, and the involvement of players with vested interests. Terstriep et al. (2015) refer to this complex network as an "ecosystem." They devised an analytical framework to describe the SI ecosystem, focusing on the interaction between actors, institutions, and paths. They categorize the participants within the SI ecosystem into the following four groups: developers, promoters, supporters and knowledge providers, involving non-governmental and non-profit organizations (NOGs/NPOs), individuals and networks, public institutions, foundations, private companies, social enterprises, and research institutions (Terstriep et al., 2020, p.4). "Developers" of SI are individuals who are fundamental to the field of SI and have the ability to effectively use their expertise to bring about social impact. These “developers” can include a variety of entities, such as NGOs/NPOs, government agencies, and private companies. “Promoters” are those who actively provide material and financial resources and social capital to build linkages between micro- and macro-level areas. “Supporters” play a crucial role in promoting and disseminating SI. The presence of "knowledge providers" inside the SI ecosystem may not be universally required, but their role is essential in facilitating and supporting local actors to pursue novel ideas and behaviors. The associations between developers, promoters, and supporters are often of a rather informal nature, with no financial rewards. Moreover, the SI ecosystem exhibits a significant degree of heterogeneity, and the interactions among SI stakeholders and related institutions are characterized by a high level of complexity. The complexity increases when considering institutions and their socio-cultural foundations, which

encompass several aspects such as entrepreneurial cultures, responsibility, solidarity, engagement, and collaboration. Ultimately, social influences tend to disrupt or modify established cognitive frameworks that serve to minimize ambiguity and provide guidance for certain courses of action. Terstriep et al. (2015) found that the interaction between regional and socio-political areas is crucial for the SI ecosystem to function.

In Japan, two scholars have attempted to incorporate an ecosystem view into their SI studies with a focus on regional and rural areas. Their approach emphasizes the significant contributions made by "social innovators" or "core actors" in establishing and expanding SI ecosystems. In a recent study, Sano (2020) presents a critique of the general tendency to attribute social and economic accomplishments solely to individual entrepreneurs. Sano proposes an alternative concept called "endogenous regional innovation ecosystems," which emphasizes the decentralization of entrepreneurial activities. This concept refers to a functional network of various stakeholders within a specific region who work together to address complex regional challenges through cross-sector collaboration and active involvement of local residents (Sano, 2020, p. 46). A key component of the SI ecosystem is a collaborative governance system developed by individuals. This system includes administrative authorities, civil society groups, businesses, educational units, financial institutions, media, and non-profit organizations, all arranged in a circle around central core actors and collaborative organizations. The evolution of the ecosystem is categorized into four distinct phases derived from the six-stage model: Birth, Growth, Development, and Maturity. In the final stage, autonomous construction and co-evolution of the SI ecosystem might occur as a result of interactions among various participants, even in the absence of central "core players."

On the other hand, Aoo (2022), based on the principles of Structural Theory and utilizing case studies conducted in Okayama, Japan, developed a more refined and comprehensive regional SI ecosystem framework. This framework is visually shown in Figure 3-1. An SI ecosystem is defined as a complex network of many societal needs, actors, resources, dynamic processes, and interactions that occur among them (Aoo, 2018a). Relationships among individuals and groups can be observed in several forms, including collaboration, facilitation, conflict, and competition. This framework has four main elements that elucidate the process of SI's growth and expansion (Aoo, 2022). First, the ideas and actions of stakeholders, including governments at various levels, businesses, civil society groups, and local communities, are influenced by the regional historical and cultural settings. Second, “social innovators” are identified as individuals who are actively involved in the regional ecosystem and play a key role in the generation and dissemination of SIs. This is accomplished through their engagement with external ideas, resources, and actors that provide them with the necessary support and opportunities for creating and spreading SIs. Third, the “regional SI ecosystem” involving

external stakeholders is a significant component of its embedded “regional ecosystem” that encompasses many SI-related players. Fourth, the stability of this regional SI ecosystem is reinforced by its strong economic foundation. The concept of SI also includes an examination of the shifts occurring within the current regional settings, as well as implications for future SI methodologies. The potential of SI to expand to accomplish comprehensive transformation is contingent upon the formation of "alliances" involving multiple sectors and the replication and widespread adoption of successful initiatives (Aoo, 2018b).

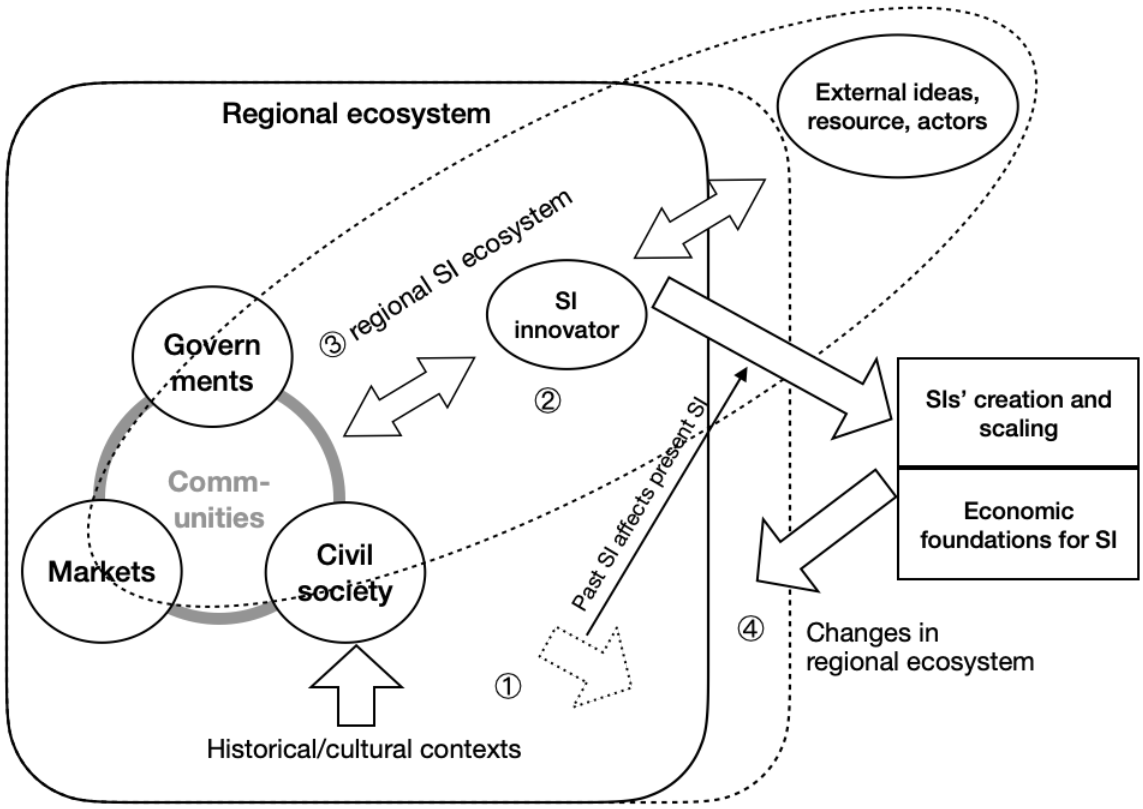


Figure 3-1 Regional ecosystem and regional SI ecosystem

Source: the author translated from Aoo (2022, p.11).

However, literature studies on the scalability of SI from the micro to the macro level indicate three specific constraints that impede the application of SI within the scope of this study. First, the two ecosystem frameworks considered exhibit a level of abstraction that deviates from the complex and dynamic nature of genuine ecosystems and may lead to overgeneralization. According to the results of Terstriep, Rehfeld, and Kleverbeck's case studies on a worldwide scale, the complex and changeable nature of SI precludes the existence of a universally applicable framework for understanding SI ecosystems (2022).

In other words, there is no universal pattern of SI ecosystem, and it should be analyzed in a case-by-case manner. Second, the existing SI ecosystem frameworks fail to recognize the multifaceted governance structure of regional ecosystems, thus limiting the understanding of SI to specific geographical communities. Third, the process of scaling out SI, which involves the interactions among many players, often tends to be oversimplified and characterized primarily by imitation, diffusion, and replication.

3.2 Modified Analytical Framework

In order to address the three aforementioned limitations of existing analytical tools, this study incorporates the insights from Terstriep et al. (2015), Sano (2020), Aoo (2022), and Riddell and Moore (2015) to construct a more sophisticated and comprehensive SI ecosystem framework. This framework, depicted in Figure 3-2, adopts a structure-agency approach and embraces a multi-layered dynamic process perspective to thoroughly investigate SI-oriented ecosystems.

Three Steps of Application

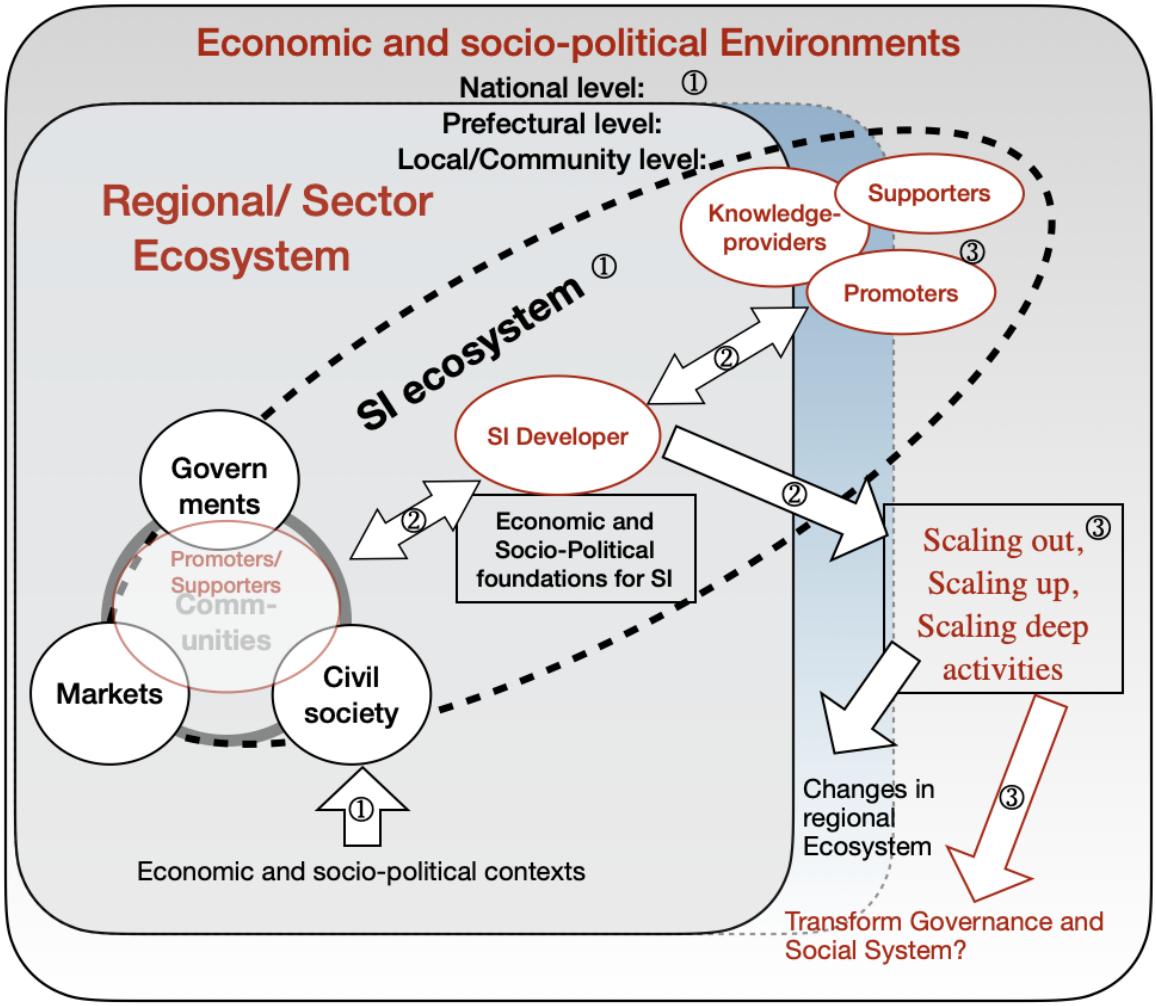
The application of this SI ecosystem framework involves three distinct steps that examine what kind of SI ecosystem is how it is formed and functions; why it works; and why it can (or cannot) transform society.

In the first step, an overview of the economic and socio-political environments (e.g., norms, laws, policies, regulations, formal standards) at various levels (national, prefectural, and local) in rural Japan is provided, zooming out to key societal issues in each selected case. They are the socio-economic problems in the organic agri-food sector, demographic challenges and seasonal young workers, and the decline and enthusiasm of female farmers, and gender issues. In addition, key actors in the economic, political and social activities of SI in their respective ecosystems, namely actors from the market, government and civil society sectors will be examined in this step. These actors will be further categorized as economic, political, and social actors. Economic actors include individual consumers, suppliers, business partners and other actors in the supply chain of main economic activities in each SI case. Political actors are mainly governmental bodies, but PPP organizations and delegated NGOs/NPOs can be included according to the general tradition of public-private partnerships in the Japanese context (Kimura, 2018). Social actors encompass citizens, NPOs/NGOs and other forms of organization in civil society.

In the second step, the author will focus on the process and outcomes of SI formation and growth, particularly the process of the implementation of scaling strategies. In addition, this step will shed light on the linkages and interactions among these different

actors in economic, political and social spheres, especially as they exert power or are involved in the process of the implementation of scaling strategies. In the next subsection, the author will identify three models of scaling strategies. Among all the actors, public bodies (including governmental bodies, PPP organizations and delegated NGOs/NPOs) and private foundations associated with SI will be specifically identified and discussed in the case studies in Chapters 4, 5, and 6. This is because these public bodies play a pivotal role in several dimensions of SI's scalability and stability (Butzina & Terstriep, 2018; Aoo, 2018). These dimensions encompass the integration of grassroots SI initiatives into policy development, fostering public-private collaborations, and the provision of financial support in the form of grants and subsidies. These practices play a crucial role for SI in developing and implementing policies that impact the public interest and foster collaboration between the government and the private sector. Moreover, the allocation of grants and funds by public bodies and private foundations to strengthen specific SIs often further promotes both the economic performance and social outcomes of SIs (Aoo, 2018). Also, public reporting and social media postings are key tools applied to influence mainstream social narratives and trends in the information society. Therefore, the case studies will pay significant attention to actors who actively promote and support SIs by tracing its visibility in traditional and social media, as well as awards received from government bodies and industry associations.

In the third and final step, this study will examine key actors and their roles within the SI ecosystem by applying the "actor classification model" (Terstriep et al., 2015) that includes "SI developers", "promoters", "supporters" and "knowledge providers" in the Discussion Chapter. Furthermore, in this step, this thesis will conclude by figuring out the facilitating and inhibiting factors for SIs to transform society by implementing scaling strategies.



① **Step 1 (what):** examine the economic and socio-political environments (e.g., norms, law, policy, regulation, formal standard) at various levels (national, prefectural, and local) in rural Japan and zoom out to the main societal issues in each selected case. identify the key actors in the ecosystem.

② **Step 2 (how)**: the content and key actors in the implementation of scaling strategies; identify actors promoting SI's "success".

③ **Step 3 (why)**: analyze the dynamic of SI and the facilitation or hindrance of SI implementation.

Figure 3-2 Multi-layered SI Ecosystem Framework

Source: the author developed through modifying Terstriep et al. (2015) and Aoo (2022).

The Scaling Strategies Model and its Application

Riddell and Moore (2015) have introduced an extended nonlinear toolkit known as the "scaling out, scaling up, and scaling deep" model, by adding one aspect to the "scaling out" and "scaling up"[31] concepts proposed by Westley, Antadze, Riddell, Robinson and Geobey in 2014. This model is valuable in analyzing the complex and evolving processes by which SIs seek to influence and are influenced by the existing regime.

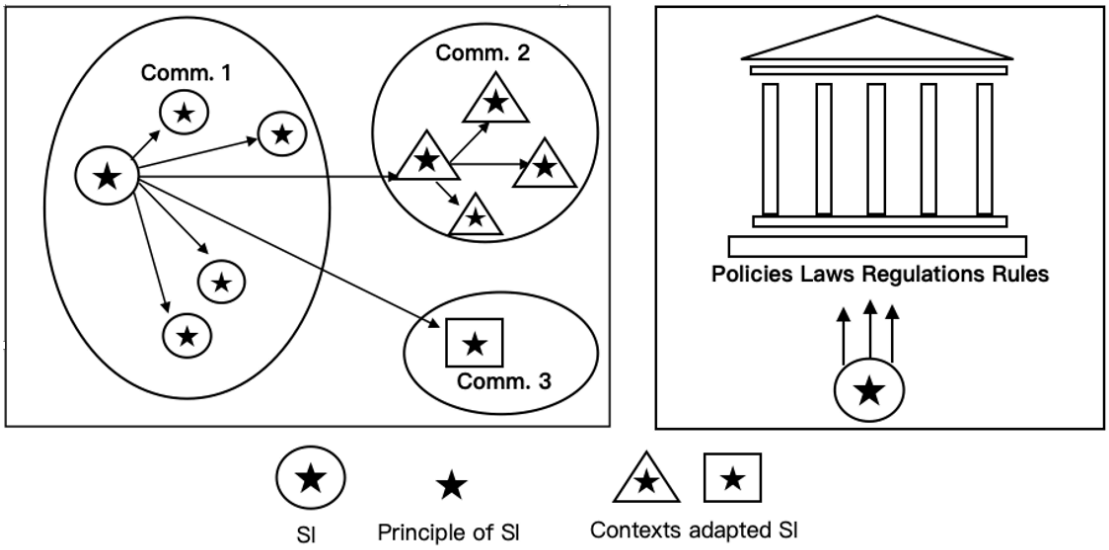


Figure 3-3 Scaling Out(left) and Scaling Up(right)

Source: Elaborated by the author.

The first set of strategies, known as "scaling out," encompasses the processes of “deliberate replication” and “spreading principle” (Riddell & Moore, 2015, pp. 15-17). First, the "deliberate replication" relates to the act of reproducing and spreading the same SI practices to larger populations and diverse physical or virtual communities and specific geographical areas. As seen in Figure 3-3 (left), for example, the processes of "deliberate replication" occur within Community 1 and Community 2 whereby the shape of the round and the triangle, encompassing the SI principle (marked as star), merely replicated without any change in the form. Second, the “spreading principle” process highlights the notion of spreading SI principles in their many forms, adjusted to different situations. Principles include concepts, objectives, and tactics. The process of adaptation to each community of the SI principle brings changes to the form of the new SI compared to its

[31] The concept of "Scaling Out" pertains to the intention of SI actors or organizations to broaden their reach and impact by replicating and diffusing their efforts to a larger population or geographic area. The term "Scaling Up" refers to the process by which SI actors or organizations employ methods to impact the recipients of SI or tackle the underlying institutional or structural causes of social issues (Westley et al., 2014).

original form. For example, as seen in Community 2 and Community 3 in Figure 3-3 (left), the shape of SI became from the original round to the triangle and the square to fit the contexts of each community though the principle of SI remains the same (marked as the shape of a star within each SI). The process of "spreading principle" refers to the creation of novel knowledge and practices through collaborative learning processes involving many actors, and through interactions between human beings and the natural environment.

The second set of strategies is the implementation of "scaling up" strategies, which are used to bring about institutional changes through the modification of policies, regulations, and laws. This approach is adopted by SI when it is recognized that the underlying causes of the social issues extend beyond specific regions. These strategies include the development of novel policies and public-private collaborations, the reallocation of institutional resources, and the promotion of legislative reform.

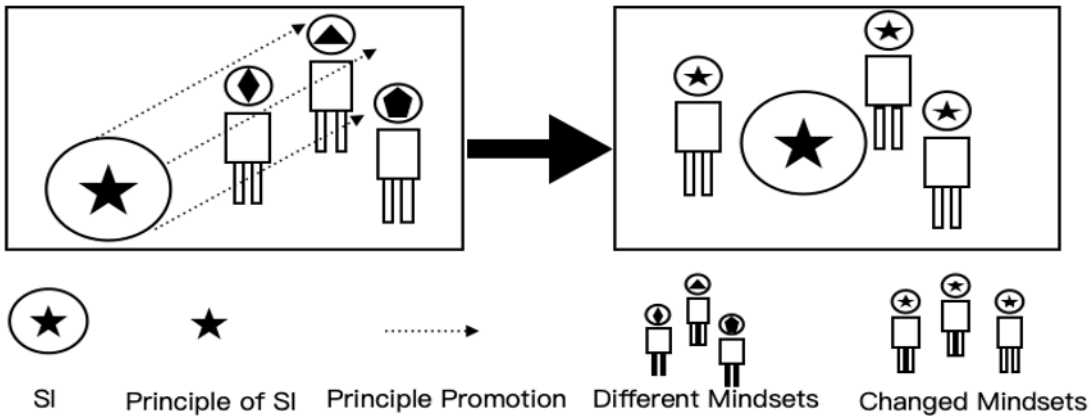


Figure 3-4 Scaling Deep

Source: Elaborated by the author.

Finally, the "scaling deep" strategies relate to the notion that significant and enduring societal change can occur only when transformations emerge in people's mindsets and beliefs, cultural practices, and interactions between humans and the environment. The pursuit of these profound transformations is the primary and ultimate goal of any SI activities. The intangibility and subjectivity inherent in these transformations make them difficult to measure (see Figure 3-4, the process of people changing their mindsets). Telling stories through social media platforms and coordinating seminars and cultural events are prominent examples of methods that implement "scaling deep" strategies.

These applications of the scaling model aim to examine the interactions among multiple actors within the SI ecosystem. Specifically, the author will first outline the development process and phases of each SI, along with the past and current institutional forms of SI developers and the core principles of each SI. In the case study chapters of this

thesis, the author will identify the types and examples of three distinct scaling strategies implemented by SI developers in the respective case. In addition, the author intends to analyze the roles played by different actors in the economic, political and social spheres and the underlying power dynamics involved in the process of implementing scaling strategies.

Overall, the expected result of the analysis and discussion using the dynamic ecosystem perspective and the scaling model is to ultimately recognize the possibility and potential of a single bottom-up SI in rural Japan to enable a systematic and holistic transformation of society.

Chapter 4: Social Innovation in Organic Agri-food Networks in Japan: A Case Study of Kagoshima Organic Farmers' Association

4.1 Introduction

Organic agriculture is one of the alternatives that has long been expected to replace the broken conventional agri-food system to ensure food sovereignty (Van der Ploeg, 2020). This is because the current agri-food system has failed to address social, distributional, economic, and environmental issues (de Souza, da Silva Pugas, Rover & Nodari, 2023), and the organic vision is geared toward a socio-technical configuration that does not simply seek to replace farming techniques but looks to transform the food system (Smith, 2006). However, even after the implementation of "The Act on the Promotion of Organic Agriculture (Act 112 of 2006)" in 2006, Japan's organic agri-food system has experienced a long period of stagnation. According to data from the 2020 Agricultural Census, the number of entities engaged in organic farming in Japan is 69,309 (just 6.4% of the national total). Compared to other OECD countries, the development of organic agriculture in Japan is far lagged behind. Against this background, the Japanese government has set an explicit policy goal in 2021 to achieve a ratio of 25% of the total arable land area[32], or one million hectares, for organic farming by 2050 (MAFF, 2021). This prolonged stagnation in the development of the organic sector, coupled with the government's ambitious policy objectives, has led stakeholders in organic agriculture to initiate dialogues regarding the feasibility of attaining these goals. Additionally, they are exploring potential avenues for advancing the organic sector and facilitating a sustainable transition in Japan's agri-food system. This exploration involves drawing insights from established innovative initiatives currently in operation. A multitude of social innovations (SI)[33] have arisen as a result of organic agri-food networks that have been launched by citizens across Japan. These organic agri-food networks have been expanding and contributing to the sustainable development of local societies by rebuilding the environmental and social structures destroyed by liberalized capitalist modes of production and retaining the economic

[32] Currently, the total arable land area (the sum of rice paddies and fields) in Japan is 4,325,000 hectares (2022). Out of the total land area, a small fraction of 0.6% is now being managed under organic farming practices in 2020. This accounts for around 25,200 hectares, which includes both Organic JAS-certified and non-certified farmlands.

[33] Here, SI is defined by its three primary features: (1) it is both the process and outcome (Murray, Caulier-Grice& Mulgan, 2010) where it is often intangible (Neumeier, 2012) and not necessarily bound to a physical space (Terstriep, Kleverbeck, Deserti, & Rizzo, 2015), (2) it reconfigures social practices (i.e., novelty) as well as meeting social needs and enhancing societal well-being through collective action and civic engagement (Mulgan, Ali, Halkett & Sanders, 2007), (3) it is path-dependent and contextual (Moulaert (Ed.) 2013).

benefits of socially innovative practices (McGreevy, Tamura, Kobayashi, Zollet, Hitaka., Nicholls & Altieri, 2021; Zollet & Maharjan, 2021).

When considering the potential of SI in transforming society, it necessitates an analytical tool to link “micro” (i.e., single SI operational organizations) and “macro” (i.e., countries and societies). Multiple analytical process models, such as the "quadruple helix model" (McAdam & Debackere, 2018) and the six-stage process model (i.e., a. identification, b. proposals and idea development, c. prototyping and testing, d. sustaining, e. scaling and f. systematic change) (Murray, Caulier-Grice& Mulgan, 2010) exist in SI studies. Over recent years, the SI ecosystem viewpoint (i.e., an SI developer or operational organization-centered organic ecosystem including economic and socio-political environments and diverse actors) and scaling framework (i.e., scaling out by replication and dissemination of SI principle; scaling up to affect formal institutions such as laws, regulations and policies; and scaling deep to change people’s mindsets) have garnered significant interest from researchers in the field of SI. They are recognized as a means to organically bridge the disconnections between micro and macro in existing research (Terstriep, Kleverbeck, Deserti, & Rizzo, 2015; Aoo, 2022; Westley & Antadze, 2010; Moore, Riddell & Vocisano, 2015, Aoo, 2018). According to the “Structure-Agency” theory (Giddens, 1984), both the influence of "structure" such as institutions and norms and "agency" such as individual or organizational behaviors facilitate or constrain the potential of SI for transforming the organic agri-food system. Following the same vein, this chapter focuses on the interaction and relationship of actors and the surrounding environments in the SI ecosystem (Terstriep, Kleverbeck, Deserti, & Rizzo, 2015; Aoo, 2022), as well as the process of SI’s implementation of scaling strategies (Westley & Antadze, 2010; Moore, Riddell & Vocisano, 2015). In addition, this study applies the qualitative research method and case study method to examine the Kagoshima Organic Farmers’ Association (KOFA), a well-known local organic agri-food network in Kyushu, Japan, as an SI developer and operational organization. Specifically, this chapter set the following two objectives with six research questions.

Objective 1: To understand the SI ecosystem of KOFA.

1. What economic and socio-political environments is the KOFA embedded in?
2. How is the ecosystem of KOFA being formed and developed?
3. Who are the main actors in the KOFA’s SI ecosystem?

Objective 2: To examine the scaling strategies employed by KOFA

1. What scaling strategies does the KOFA employ?
2. Which actors are implementing the scaling strategies? How are they putting the strategies into practice?

3. Why are scaling strategies successfully implemented? What actors celebrate the “success” of KOFA?

The remainder of this chapter is structured as follows: the next section of the literature review provides an overview of the meanings of organic agriculture in Japan and the argument about the future directions of Japanese organic agriculture. Then section 3 presents the methodology and sources of information used in the empirical analysis. Section 4 and Section 5 show the results of the case study, followed by a discussion and conclusions in Section 6 and Section 7.

4.2 Environments of organic agriculture in Japan

This section elucidates the current external socio-political environments of organic agriculture in Japan through the literature review. In the existing research literature on organic agriculture, four drivers are identified for its sustainable development: (1) the promotion of organic agriculture in the public sector (scaling up), (2) recognizing and responding to the heterogeneity of organic farmers and farming styles (scaling out), (3) building support systems for local communities and popularizing successful cases as models(scaling up and scaling deep), and (4) understanding and responding to the trend of commercialization of organic agri-food systems (scaling out).

First, the promotion of organic agriculture in the public sector, achieved through collaboration with local organic farmers, is generally acknowledged as a crucial factor in ensuring its future viability. Some researchers believe that organic agricultural products should be purchased and provided in the public procurement system, including school lunches at educational institutions such as elementary schools, junior high schools, kindergartens, and nurseries; school canteens at high schools, vocational schools, agricultural colleges, and universities; and canteens and food services at hospitals, welfare institutions, elderly care institutions, government offices, prisons and juvenile detention centers, and other public facilities (Oe, 2020; Sekine, 2021). Some schools in Japan have already introduced such organic school lunch programs. For example, public-private partnership initiatives to promote programs that combine biodiversity conservation with organic rice school lunches have emerged throughout Japan, such as the "Rice that Nurtures Storks" program in Toyooka City, Hyogo Prefecture; the "Rice for Paddy Field Organisms" program in Takashima City, Shiga Prefecture; and the "Rice that Invites Japanese Cranes to Farms" program in Komatsushima City, Tokushima Prefecture (Sameda, 2022). However, the Japanese Society of Organic Agriculture Science further argues that the government procurement system alone is not sufficient to increase consumption of organic agricultural products and that diverse distribution channels

should be established by forming regional food supply systems at the municipal and prefectural levels (Japanese Society of Organic Agriculture Science, 2021).

Second, it is important to recognize and respond to the heterogeneity of organic farmers and the diverse approaches they use in their agricultural practices. This heterogeneity has two implications. One notable aspect of this heterogeneity is the diversity within the organic farming community, including both small-scale family farmers and large agricultural enterprises (Vercher, 2022). In recent years, there has been a gradual and consistent expansion of alternative and multifunctional agricultural practices in Japan, despite the prevailing tendency towards commercialized and corporatized agriculture. This phenomenon has emerged partly as a result of socio-cultural influences that compel individuals to engage in cooperative behaviors and establish a sense of belongingness to their own local communities and geographical locations (Hisano, Akitsu, & McGreevy, 2018). Small-scale family farms are highlighted as having a leading role in practicing organic agriculture (e.g., McGreevy et al., 2021; Zollet & Maharjan, 2021). However, Aikawa (2013) argues that an overemphasis on the role of small-scale family farms and a dichotomous view of small-scale family farmers vis-a-vis corporate farming is not constructive. Instead, we need to see them as complementary and collaborative entities for the survival and development of rural communities and local agriculture (Aikawa, 2013). The second implication of the heterogeneity is that organic farming is practiced by farmers in diverse ways. The extent to which farmers can practice the ideal organic agriculture, which "improves the function of the agro-ecosystem indirectly, rather than directly by humans working on crops, such as through the application of fertilizers and pesticides, so that weeds and microorganisms can function better" (Japanese Society of Organic Agriculture Science, 2021), is diverse. It also depends on farmers' understanding of organic agriculture, personal preferences, and capabilities, local acceptance of alternative small-scale farming options, and the presence of pioneering farmer leaders as "attractors" (Zollet & Maharjan, 2021). Organic farming often requires farmers to commit more time, energy, skills, and knowledge to deal with weeds, pests, and soil conservation than the intensive use of large-scale fertilizers and pesticides as in conventional farming. While both academia and the government acknowledge that newcomer organic farmers are key actors in promoting organic farming, the practices required for organic farming present high barriers to entry for newcomers or those who convert from conventional farming (Oguchi, 2018; Rosenberger, 2017; Sekine, 2021). Hence, it is crucial to enhance the dissemination of knowledge among organic farmers across the country through the implementation of diverse methodologies, such as the system approach, participatory approach, and transdisciplinary approach. These approaches entail collaborative research initiatives involving farmers, universities, and research organizations, alongside the extensive

utilization of innovations from the private sector (Muramoto, 2019). At the same time, increased learning among farmers and "charismatic leadership[34]" can expand agroecological knowledge and practices throughout a given region (McGreevy et al., 2021, p.3).

In addition to the availability of technology and knowledge that would otherwise constrain the entry and network formation of new organic farmers, the support of local communities and the role of successful cases as a model cannot be ignored. The ability of organic agriculture to take root in the local area has a positive effect on the development of organic agriculture itself and the local community. Taniguchi and Sawanobori (2021) suggest that the "socialization of organic agriculture" is beneficial to regional revitalization as it not only contributes to solving regional problems but also allows the results to spill over to the whole region. Organic agri-food systems are also expected to contribute to communication between producers and consumers, the revitalization of local communities, and the rebuilding of the relationship between humans and nature (Iwahashi, 2021; Iwamoto, 2008, 2012; Nakagawa, 2018; Oguchi, 2012, 2018; Yasue & Shimoguchi, 2018). On the regulatory side, the Act on the Promotion of Organic Agriculture stipulates that not only the national government but, more importantly, also local governments are required to take primary responsibility for supporting organic farmers, improving consumer understanding and interest, and promoting research and development in organic agriculture. We have also seen that although the overall attitude of Japanese agricultural cooperatives (hereinafter referred to as JA)[35] towards the promotion of organic agriculture is not proactive, some local JAs have played crucial roles (Organic Agriculture Entry Promotion Council, 2016). Taniguchi and Sawanobori (2021) argue that as organic agriculture can play such an important role in the sustainable development of local communities, policies should be developed in a way that central government delegates more autonomy to local authorities, with the view that organic farming can be a useful tool for the survival and development of local communities.

The last point is the need to capture and respond to the trend of commercialization of organic agri-food systems. This trend may lead to the growth of organic markets (Hu, 2021; Kim, Suwunnamek & Toyoda, 2008; Ojima, Satoh & Datai, 2013; Sakai, 2016). However, the commercialization of organic agriculture is also a double-edged sword for

[34] According to the article, it refers to the farmers who are charismatic, inclusive, open-minded, and generous, and often attract people to come to their place to learn their techniques and philosophy (McGreevy et al., 2021, p.10).

[35] JA has dominated the agri-food system in Japan since the postwar period, because most farmers rely on a full set of farming and selling necessities provided by JA, such as inputs, information, loans, and market access.

its own sustainability. This is because commercialization tends to exclusively benefit large food processors and retailers, who have more economic and social capital to take advantage of the expanding organic market without benefiting marginalized local organic farmers and alternative food networks (AFNs) (Hu, 2021). Large companies are displacing or squeezing out local small-scale actors. For example, in the 1980s, the emergence of citizen-led distributors such as Radishbo-ya, DAICHI wo MAMORU KAI and Biomarche, which specialized in organic or low-chemical products and processed foods without additives, played a key role in popularizing and encouraging organic AFNs. However, two of these leading organic distributors, DAICHI and Radishbo-ya, merged with Oisix, a Japanese online home delivery company, in 2017 and 2018, respectively, to create a new and largest online and catalog retailer specializing in "organic vegetables, specially cultivated produce, processed foods without additives, and other food and ingredients." Even before the merger, Daichi and Radishbo-ya had formed business ties with Lawson, one of the largest convenience store chains, while Oisix was actively working with a number of agri-food and other business corporations.

In addition, the Japanese government is playing a role as a facilitator in the commercialization of organic agriculture. In the "Basic Policy for the Promotion of Organic Agriculture" (2020), MAFF has set a clear goal to expand the domestic organic food market to achieve approximately 328 billion yen by 2030 and to increase the proportion of domestic supply from 60% in 2017 to 84% in 2030 (MAFF, 2021). As part of the plan's strategy, the government has launched a project to promote the establishment of a value chain for domestically produced organic agricultural products, involving organic food companies and food and beverage manufacturing companies as "Japanese Organic Supporters"[36]. As of September 2023, the project involves a total of 103 firms, including Chikyubatake (KOFA), Biostyle[37], Biomarche (organic food), Seven & I Holdings Co. (supermarket chain), Ito-Yokado (supermarket chain), and Watami Co. (restaurant chain) (MAFF, n.d.). In the same vein, MAFF is promoting "Organic JAS certification" among farmers to promote the growth of the organic market.

We can see that the most critical actors in the four drivers are the national and local governments, organic farmers, local communities, and organic market actors. It is local organic agri-food networks, among others, that link all these actors at the local and

[36] https://www.maff.go.jp/j/seisan/kankyo/yuuki/supporters/suppoters_top.html, last accessed on October 10, 2023.

[37] Biostyle Co., Ltd. is a corporate entity affiliated with the Keihan Group, a conglomerate mostly associated with the Keihan Electric Railway, a transportation network that facilitates connectivity between the cities of Kyoto and Osaka. The commercial complex known as "GOOD NATURE STATION" was established in December 2019 and is situated in Shijo Kawaramachi, Kyoto. It includes a hotel, a store, and houses many brands like the cosmetics brand "NEMOHAMO," the sweets brand "RAU," and the cuisine brand "SIEZN TO OZEN."

regional levels. In this sense, it is necessary to study the ecosystem and scaling processes of organic agri-food networks which are relevant to the sustainable development of organic agriculture in Japan.

4.3 Methodology

4.3.1 Organic Agriculture in Japan

In 1999, the Ministry of Agriculture, Forestry and Fisheries (MAFF) started a domestic organic agri-food certification system, known as the organic JAS certification, based on the FAO/WHO Codex Alimentarius guidelines. According to the JAS law, organic farming is supposed to exclude the use of chemically synthesized fertilizers and pesticides, as well as genetically modified technology, and instead use a form of agricultural production that is the least harmful to the environment. It is this kind of organic agriculture under the certification system that the Japanese government is currently promoting in its policy.

In addition to this officially promoted definition of organic agriculture as applied to international and mainstream markets, there is also a popular way of looking at organic agriculture as an alternative definition of agriculture among Japanese people, such as the International Federation of Organic Agriculture Movements (IFOAM)'s definition of organic agriculture and the FAO's definition of agroecology, among others (see Table 4-1). These two definitions share a consistent position on respecting ecology and differ only in the extent to which they intend to change the food system and the vision of solving social problems (FAO, n.d.; IFOAM, 2015). According to the Ten Principles of Organic Agriculture proposed by the Japan Organic Agriculture Association (日本有機農業研究会, JOAA) in 1999, the Japanese civic organic agriculture community's understanding of organic agriculture is basically in line with both the IFOAM and FAO. Following this vein, the Japanese Society of Organic Agriculture Science (日本有機農業学会) stresses that organic agriculture is not just meant for the replacement of chemical fertilizers with organic fertilizers but rather for the process of balancing the improvement of agricultural productivity and the conservation of natural ecosystems (Japanese Society of Organic Agriculture Science, 2021). That is, organic agriculture should be an operational mechanism that starts from reducing the use of pesticides and chemical fertilizers, gradually improving the diversity of farm ecosystems, then achieving sustainable crop production through efficient material cycles in ecosystems, and finally achieving stable production of delicious and nutrient-rich crops while also protecting farm ecosystems (Japanese Society of Organic Agriculture Science, 2021). In fact, most of the organic farming and food networks that began to evolve in Japan in the 1970s and 1980s do have the characteristics of agroecology, emphasizing both the governance of ecosystems and the expectation of rebuilding social relationships through the *Teikei* relationship (CSA)

between producers and consumers. At the same time, many alternative farming networks associated with social movements share the bottom-up character of agroecology and the belief that practicing organic agriculture is the key to building sustainable and equitable food systems and solving social problems. In this sense, as many researchers have done, the concepts of organic agriculture and agroecology are applied interchangeably (e.g., McGreevy et al., 2021). Therefore, this chapter also applies organic and agroecological concepts without distinction in understanding the environmental, social, and economic aspects of innovative agri-food initiatives.

Table 4-1 Four Definitions of Organic Agriculture in Japan

Organization	Definition
IFOAM (2015)	organic agriculture is a production system that sustains soil, ecosystems, and human health. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than using inputs with adverse effects. Organic farming combines tradition, innovation, and science to benefit the common environment and promote equitable relationships and a good quality of life for all participants.
FAO (2020)	agroecology is an integrated approach that applies both ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment, while taking into account the social issues that need to be addressed in order to create sustainable and equitable food systems. It is based on a bottom-up territorial process that helps to provide locally adapted solutions to local problems. We can see that these two definitions have a consistent position in respecting ecology but differ in the extent to which the vision of changing food systems and solving social problems.
JOAA (1999)	The Ten Principles of Organic Agriculture: (1)Farmers should produce an adequate quantity of safe, high-quality food to contribute to sound eating habits; (2)By minimizing pollution and environmental destruction resulting from agriculture, we ensure a healthy ecosystem for all microorganisms, plants, and animals; (3)Efficient use of regional renewable resources and energy better utilizes the production power of nature; (4)A truly closed system includes both regional food self-sufficiency and renewable resource and energy independence; (5)Cultivating better soil fertility creates living soil; (6)Plant and animal diversity, whether cultivated or wild, is a key component of sustainable organic agriculture; (7)Sound management of livestock and poultry includes respect for their natural behavioral instincts; (8)A safe and healthy working environment ensures financial self-sufficiency and a feeling of satisfaction through adequate remuneration and fair work; (9)The goals of organic agriculture are advanced through friendly relationships between producers and consumers based on mutual understanding and trust; (10) Value must be placed upon the societal, cultural, educational, and ecological significance of agriculture and farming communities; respect for life by all citizens is essential.
Organic JAS (1999)	organic agriculture should exclude the use of chemically synthesized fertilizers and pesticides, as well as genetic modification technologies, and instead employs agricultural production practices that minimize its harm to the environment. Generally, chemical fertilizers and pesticides should not be used for at least two years before sowing/planting and throughout cultivation (at least three years before harvesting for perennial crops). The certified farmers are obligated to submit a document review, consisting of an annual production plan, production management record, grading results, and receive an on-site inspection each year.

4.3.2 Data collection and analysis

This research employed three qualitative methods to collect data: (1) unstructured and semi-structured interviews, (2) on-site participant observation, and (3) document and media analysis for the case study of the Kagoshima Organic Farmer's Association (KOFA: かごしま有機生産組合) (see location in Figure 4-1).

Figure 4-1 Location of KOFA in the Kyushu region in Japan

Note: The oval shape represents the approximate location of KOFA's operation.

Source: Author's elaboration on the base map by Kyushu Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism (http://www.qsr.mlit.go.jp/s_top/soshiki/map/index.html, accessed on April 22, 2022).

First, thirteen interviews were conducted on-site or online as shown in Table 4-2. Eleven on-site interviews took place at affiliated farms, the café (see Figure 4-2 right below), and the warehouse during the field research at KOFA in February 2022. Informants include five farmers, two trainees, three employees, a representative director, new organic farmers, as well as a KOFA's senior manager who introduced all other informants. In addition, on March 8 and 16, 2022, two further interviews with the junior

employees in KOFA's directly managed farms were performed via virtual tools of WeChat and the Facebook Messenger application. Each interview lasted for 30 minutes to 2 hours. Most interviews were conducted in an unstructured manner and notes were taken during the interviews.

Table 4-2 Outline of interviews in case study of KOFA

No.	Date	Location	Informants	Form	Record	Hour(s)
1	Feb. 13	KOFA's warehouse	Senior manager K	Semi-structured	Record, Note	1.5
2	Feb. 16	a village in Yibusuki	New organic farmers	Unstructured	Record, Note	2
3	Feb. 16	Farm in Yibusuki city	Farmer A	Unstructured	Record, Note	0.5
4	Feb. 16	KOFA's warehouse	Senior employee S	Unstructured	Record, Note	0.5
5	Feb. 16	KOFA's warehouse	Farmer B, former trainee	Unstructured	Record, Note	0.5
6	Feb. 16	KOFA's warehouse	Trainee A	Unstructured	Record, Note	0.5
7	Feb. 16	KOFA's warehouse	Farmer C	Unstructured	Record, Note	0.5
8	Feb. 19	Farm	Farmer D	Unstructured	Record, Note	1
9	Feb. 19	KOFA's cafe	Representative director Y	Unstructured	Note	0.5
10	Feb. 24	Kirishima city	Senior manager K	Unstructured	Note	2
11	Feb. 24	Farm in Kirishima city	Farmer E	Semi-structured	Note	1
12	Mar. 8	Virtual, Messenger	Junior employee Z	Semi-structured	Record, Note	1.5
13	Mar. 16	Virtual, WeChat	Junior employee P	Semi-structured	Note	1.5

Second, apart from the interviews, the author conducted a two-week fieldwork at KOFA's farms and shops for participatory observation. Together with part-time workers, full-time employees, and technical trainees, the author worked for 8.5 days on processing (see Figure 4-2 left up) and packaging, seeding, fertilizing, weeding, trimming, and soil testing.

Figure 4-2 Field trip in KOFA

Source: photos owned by the author.

Finally, the author conducted a grey literature-based document and media analysis **(Chikyubatake, n.d.-b, n.d.-a; Iwamoto, 2008, 2012; KOFA, n.d., 2005; Yasue & Shimoguchi, 2018)**. In particular, the materials of the narrative analysis of the essays written by farmers, local government officers, consumers, and retailers were sourced from the KOFA's book (2005) and 40 volumes of AiraView [38] (2013-2022) and Chikyubatake periodicals (地球畑通信, 2011-2022). The book has the stories of 2 representative directors, 6 consumers, 3 leaders of partners and retailers and dozens of organic farmers, and the periodicals include first-hand and second-hand writings about 27 organic farmers. In total, the author collected first-hand and second-hand materials from about 40 farmer members out of a total of about 160 in KOFA (see Figure 4-3).

[38] "AIRAview" is a public periodical issued by Aira City, Kagoshima Prefecture, once a month from 2010. From 2016 to 2022, there is a separate column for organic farmers that has introduced 40 organic farmers in Aira city. https://www.city.aira.lg.jp/airaview/index.html, last accessed on 12 January 2022.

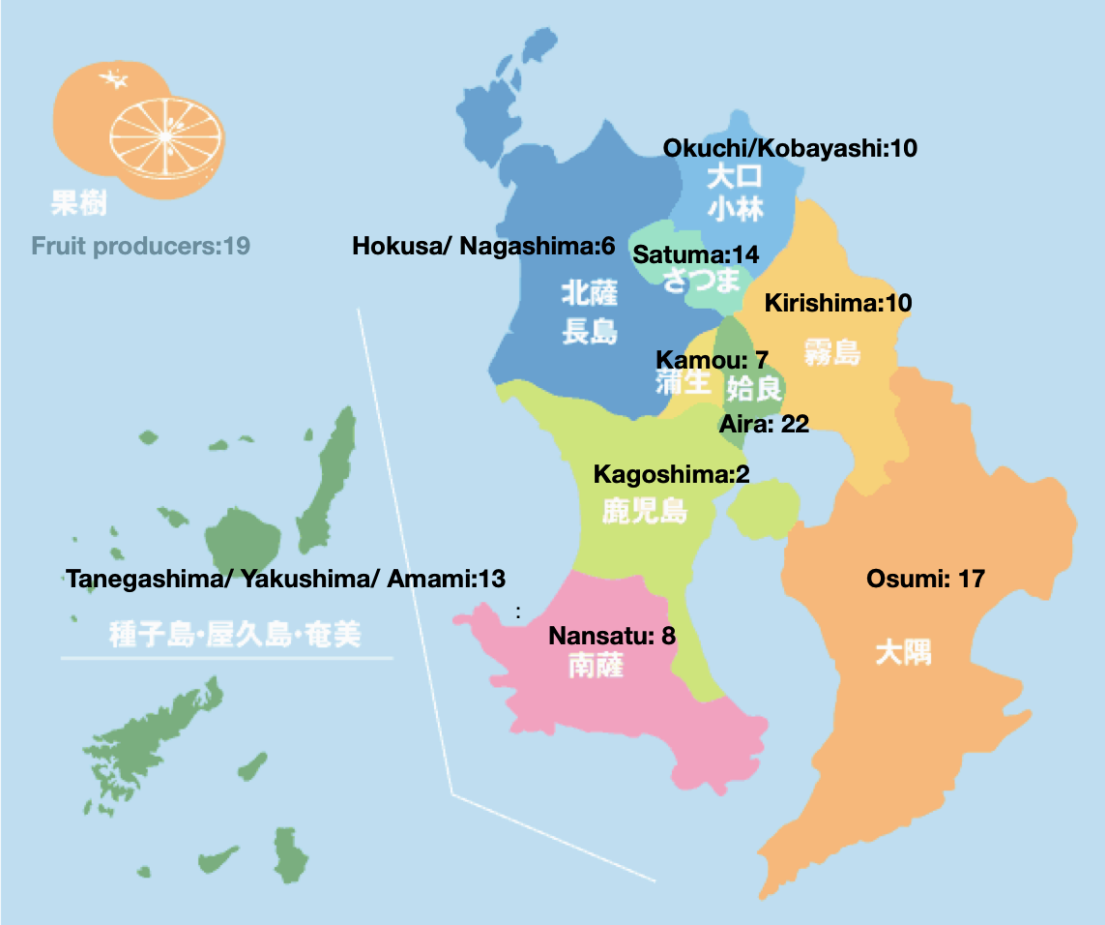


Figure 4-3 The locations and the number of farmer members in KOFA.

Note: the number attached to each region represents the number of households that joined KOFA within Kagoshima pref. without those in other prefectures. The total member extends to about 160 according to KOFA's own data.

Source: Elaboration by the author based on the map of KOFA (http://www.chikyubatake.jp/producer-index.html, accessed on 24 April 2022).

4.4 SI Ecosystem

This section outlines and elucidates the prefecture-scale economic and socio-political environments surrounding KOFA, the history of KOFA's development, and five groups of main actors in the SI ecosystem.

4.4.1 Economic and Socio-political Environments in Kagoshima Prefecture

Kagoshima prefecture, consisting of 19 cities, 20 towns and 4 villages, is the second most important region, after Hokkaido, for both overall agricultural production and organic farming. It has 500 farm households and 964 ha of farmlands applying organic farming

methods, including 742 ha certified as Organic JAS in 2018[39]. Over 60% of the Organic JAS farmland is dedicated to tea cultivation. In terms of the number of Organic JAS-certified farmers in 2022[40], Kirishima city with 28 (most are tea) and Aira City with 25 lead the prefecture. In particular, Aira City has been actively and effectively cultivating new organic farmers. For example, Aira City had 35 organic farmers in 2016 (14 of whom were under the age of 40) out of 398 organic farmers in the prefecture. Fourteen of the 20 new farmers, whom the city accepted between 2012 and 2016, have adopted organic farming methods[41].

Socially speaking, people who practice organic agriculture used to be called “Henjin” (which means weirdo in Japanese). The socially marginalized situation has changed recently. There is a widespread saying “Once 'Henjins', now pioneers[42]” showcasing a change of a more friendly and understanding social environment of organic agriculture in general.

Kagoshima Prefectural government set the first "Kagoshima Prefecture Organic Agriculture Promotion Plan(鹿児島県有機農業推進計画[43])" in 2008 and revised once in 2015. In order to respond to the national government’s revised "Basic Policy on the Promotion of Organic Agriculture" in April 2020, the Kagoshima government set three numerical targets in 2021. They are to (1)expand the acreage of organic agriculture from 999 ha in 2019 to 2,000 ha in 2031, (2)increase the percentage of consumers buying organic agri-food from 10% in 2019 to 25% in 2031, and (3)raise the percentage of certified Organic JAS products from 80% in 2019 to 90% in 2031(Kagoshima Prefecture Organic Agriculture Promotion Plan, 2021, p.3). Especially, the prefecture government aims to support new organic farmers in terms of farming techniques and administration, by collaborating with the local governments in the prefecture, JA, and other related organizations, by utilizing the national government’s programs and subsidies, and by utilizing the organic farming manual. To the organic organizations in civil society, the prefecture government provides information, guidance, and advice alongside works in cooperation and collaboration with them to promote organic agriculture.

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39 Data refers to Kagoshima prefecture. http://www.pref.kagoshima.jp/ag04/sangyo-rodo/nogyo/gizyutu/kankyo/yuuki/documents/71177_20190315151011-1.pdf, last accessed on 13 January 2022.

40 AiraView vol. 233.

41 AiraView Vol. 82, 162, and 233.

42 Chikyubatake periodical (2014), vol. 183.

43 https://www.pref.kagoshima.jp/ag04/sangyo-rodo/nogyo/gizyutu/kankyo/yuuki/documents/7418_20210331165203-1.pdf, last accessed on 13 November 2023.

4.4.2 KOFA's Development Phases

The Kagoshima Organic Farmer's Association (KOFA) has been promoting organic agriculture in Kagoshima prefecture as a grassroots organization before and after the enforcement of the Act on Promotion of Organic Agriculture in 2006. There are three phases of KOFA's development from the formation phase, the growing phase, to the maturing phase. This subsection presents the main events of each phase.

Formation Phase (1980s~90s)

During the 1970s and 1980s, an environmentally oriented consumer movement flourished. Against this backdrop, the establishment of the Kagoshima Organic Farmer's Association (KOFA) began with a citizen-led organic farming study group organized by a former Kagoshima City Mayor Sanetake Hirase in 1978. In the beginning, the group consisted mainly of consumers, school teachers, and government officials, with only a few producers. After many local organic farmers joined, the study group members established a *Teikei* or CSA system called "*Kagoshima Tadashii Tabemono wo Tsukuru Kai*"[44] (which means the Right Food Production Association in Kagoshima, hereafter *Tsukuru-kai*), delivering organic rice and vegetables twice a week initially to about 100 local consumer's households since 1981. The number of consumers grew to about 300 households and then stagnated. This was because it was difficult for urban consumers, who usually prefer to shop at supermarkets that offer a wider range of choices, to satisfy their needs with a limited variety of vegetables provided by organic farmers. Recognizing such difficulties, the male representative director of KOFA stressed as following:

> *If you are isolated in your community and you are the only one engaged in organic farming, but the surrounding farmers use large amounts of pesticides and chemical fertilizers, environmental pollution will only increase. In order to appeal for a switch to organic farming, we must first become self-reliant. While aiming to produce better quality vegetables is a matter of course, they must also secure sales channels. We also want to supply organic vegetables to urban consumers.* (Male, representative director of KOFA, Y)

With this motivation, at a meeting of the *Tsukuru-kai*'s Producers Committee in 1984, 10 farmer members decided to establish KOFA to secure outlets for local organic farmers to sell their organic vegetables collectively, not only to local consumers but also to consumers in other urban areas. This is how today's KOFA started to take form. The farmers' association then became incorporated in 1991.

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[44] It developed to an NPO serving 300 households, http://www.shokunokazoku.com/, last accessed on 12 January 2022.

Growing Phase (1990s~2010s)

Against the backdrop of the economic crisis and decline in the 1990s, the collaborative relationships between KOFA and its partners, especially the Kyouseisha Co-op Union[45], urged KOFA to secure new market channels. In 1992, KOFA established its inaugural specialty shop, Chikyubatake(地球畑), which drew inspiration from the Kansai Yotsuba Liaison Association's (KYLA[46]) strategy of opening small stores alongside its joint purchasing. The name "Chikyubatake," meaning "Earth's Farmland" in Japanese, was chosen to reflect the concept of "Think globally, act locally." The shop (Nishida branch) was strategically situated within a convenient walking distance of less than 10 minutes from Kagoshima Central Station. Today, there are three shops located in Kagoshima city, with the second one (Arata branch) opened in 2001 and the third (Taniyama branch) in 2008, respectively. KOFA's first cafe, named 'A Ship over the Meadow (草原をわたる船)', was opened in the Arata branch specialty shop in 2006.

Maturing Phase (2010s~the present)

In addition to specialty shops, KOFA has also established directly-managed-farms in 2012. This was triggered by the aging of Japanese agriculture and the lack of successors. Although about five new young farmers join the association every year, the number of member farmers has stagnated at around 160 over recent years. Currently, KOFA has three core bodies: organic farmers' association, specialty shops and café, and directly managed farms. The scale of KOFA has grown to 162 organic farmers (including 102 organic JAS-certified farmers) with 275 ha of farmlands. KOFA employs 75 people in total, 45 full-time and 30 part-time. In addition, KOFA was led by two representative directors[47], who are husband and wife. They both have carried multiple crucial duties in diverse organic organizations including Kagoshima Organic Agriculture Association (鹿児

[45] They merged with Fukuoka Regional Co-op Union to become the current Co-op Union Green Coop, https://www.greencoop.or.jp/cooperative/, accessed on 16 January 2022.

[46] The "Kansai Yotuba Liaison Association/Yotuba Home Delivery" began operations in 1976, during the growth of the "Organic Agriculture Movement" and the "Consumer Movement to Eliminate Food Pollution" at the time. The organization serves approximately 40,000 households in the Kansai area and operates its own farm and food processing business. Its mission is more transformative in that it aims to change the current broken social system regarding food by connecting production, distribution, and consumption processes. Official website of Yotuba, https://www.yotuba.gr.jp/, last accessed on 12 January 2022.

[47] The male director was born in Kagoshima prefecture and became a social activist concerning Minatama disease when he was a student. A former Administrative Vice Minister of MAFF, Edamoto Masaaki attended the same high school with the male representative director. Edamoto is the one of conveners of a memorial meeting for the male representative director. https://newstsukuba.jp/44167/10/04/, last accessed on August 21, 2023. The female director is from Rikuzentakata City, Iwate prefecture, which heavily suffered from the "3.11" Tohoku earthquake and tsunami disaster.

島有機農業協会), Zen-yukyo (National Organic Agriculture Promotion Council 全国有機農業推進協議会), and Organic Congress Japan (日本オーガニック会議).

A quote from the female representative director clearly illustrates the meaning of organic agriculture to KOFA is alike FAO and IFOAM.

> *In such a capitalist society that prioritizes efficiency and economic considerations above all else, organic activities can be sustained only because of the love and passion of the people engaged. Not only a passion for meeting people but also for encountering agricultural products such as vegetables, rice, and fruits, as well as each of our products, has brought us here. All food is created by life. We should remind ourselves once more that food has a history, a culture, and the people and nature who give it birth […] Organic is not a brand. Organic is the very essence of life. Organic is a way of life. […] We still have a long way to go before organic principles of health, environment, social justice, and concerns for the future become common sense.*[48]
> (Female, the representative director of KOFA, A)

4.4.3 Primary Actors in the SI Ecosystem

As a result of the above series of developments, KOFA's ecosystem is made up of various actors, including (1) organic farmer members, (2) partners and retailers, (3) governmental bodies, (4) PPP organizations, and (5) non-government organizations (NGOs) and non-profit organizations (NPOs) as well as media and many individual stakeholders, including newcomers, trainees, and consumers of specialty shops and the café.

Organic Farmer Member

KOFA has about 160 member farmers and most of them used to be conventional farmers or are new to the region. The top four reasons for them to start organic farming are (a) a significant change in life stage such as marriage, the birth of their first child, retirement from their previous jobs, or taking care of their parents, (b) having themselves or family members suffering from atopy or allergies, (c) rethinking of their lifestyle prompted by external shocks such as the Covid-19 pandemic, and (d) being inspired by their first encounter with organic farming. Almost all new entrants have been able to become independent organic farmers thanks to technical and informative support from the Kagoshima Organic Agriculture Technical Support Center (鹿児島有機農業技術支援センター, hereafter the Support Center) and KOFA's farms, the mediation and assistance of veteran member farmers, as well as the sales channels and close interaction with consumers created by KOFA and Chikyubatake.

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[48] Chikyubatake periodical (2018), vol. 193.

Regarding how to describe their farming livelihoods, the terms “trial and error (試行錯誤)”, “high risk”, “for livelihood (生計のため)”, and “hardship (苦労)” are often mentioned by organic farmers regardless of how many years they have been working on farms. Why farmers refer to these terms can be explained by the following comment of one skilled employee who has been trained and worked in organic farming for six years:

> *Too many variables in farming will influence the outcome. Climate, sunlight, water, soil, you name it. As a result, every year feels like a fresh start […] (The names of the senior manager K and staff S) are far superior to mine (on farming). They have been in the sector for a long time. If something goes wrong on the farm, they know exactly what happened and how to fix it.*[49] (Male, late 20s, junior employee Z)

This viewpoint is likewise supported by an observation made during the author's field research.

At the same time, "consumers’ praise”, “encouragement from the Chikyubatake specialty shops’ staff”, “more healthy food for their family”, “intimacy with nature”, “joy (楽しみ)”, and “satisfaction derived from work” are commonly highlighted by member farmers.

> *I've been organizing harvest experience events at my greenhouse to interact with consumers (since 2013). Although it takes time and effort to schedule the harvest of organic vegetables with the event date, as well as to prepare and set up everything, it is my greatest satisfaction as a producer to hear many pleasant voices from the participants[…] Organic farming entails significant risks, such as insect pests and crop diseases, but we are always developing our abilities and cultivation techniques in order to provide plentiful vegetables to all consumers*[50] (Male, farmer member M).

In addition to consumers, the staff of specialty shops play another important role in motivating organic farmers to set and fulfill their mission.

> *Supermarket employees deal with vegetables but know nothing about the farmers and their families. They simply consider these products as commodities. Chikyubatake specialty shop staff, on the other hand, are distinctive. They frequently assist me in harvesting or weeding. We can really talk during that period. They know where I live, and how many people are in my family, and they even know that I farm after I take my mother to the hospital every day. We have a very great bond*[51] (Female, farmer member W).

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[49] The Interview on 18 February 2022.

[50] Chikyubatake periodical vol. 193.

[51] KOFA (2005), pp.77-78

Partners and Retailers

The second group of actors includes KOFA's collaborated organic retailers and distributors such as Oisix Ra Daichi, Bio Marche[52], Kansai Yotuba Liaison Association (KYLA), Fūsui Project[53], Tohto Co-op[54], Polan Organic Foods Delivery (POD)[55], Akikawa Foods and Farms[56], and Hokkaido Organic Agricultural Cooperative[57]. Among them, POD, KYLA, Bio Marche, and Oisix ra Daichi are the four main and long-term collaborating retailers for KOFA. Similar to Daichi-wo-Mamorukai, which was merged with other two organic home delivery service and e-commerce companies to become the Oisix ra Daichi in 2018, Bio Marche once was a bottom-up AFN but was acquired by a big transport company, Keihan Holdings in 2014. The other two partner distributors, on the other hand, have not yet been fully commercialized by large business acquisitions. KOFA began its relationship with POD in 1985 and KYLA in 1984.

Governmental bodies

KOFA has also actively connected and collaborated with national governmental bodies such as the Ministry of Agriculture, Forestry and Fisheries (MAFF), Ministry of Economy, Trade and Industry (METI), Consumer Affairs Agency (CAA), Ministry of Environment, Japan International Cooperation Agency (JICA), The Japan External Trade Organization (JETRO). Furthermore, KOFA collaborates with prefectural and local governments, mainly by providing technical support, including the Kagoshima Prefectural Agricultural Administration Department, , and Agricultural Policy Department, Minamitane-town Administrative Office. In 2019, KOFA was awarded by MAFF for its continuous contributions to the promotion of organic agriculture and environmental conservation(農林水産大臣賞).

PPP organizations

The fourth kind of actors involves public-private partnership (PPP) organizations such as, the Kagoshima Organic Farming Promotion Council (かごしま有機農業推進協議会,

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[52] Bio Marche has initially sought to create a society rich in harmony and diversity by developing new production and consumption methods based on the organic farming philosophy that harmonizes and resonates with life and the environment. They highlight that organic agriculture reduces the load on people and the natural environment while also having the ability to sustain the environment. https://biomarche.jp/company, last accessed on 16 January 2022.

[53] http://www.fu-suipj.net/, last accessed on 16 January 2022.

[54] https://www.tohto-coop.or.jp/index.php, last accessed on 16 January 2022.

[55] POD's mission is to promote organic distribution and sales to support organic agriculture-based sustainable production and processing. https://www.e-pod.jp/hd/, last accessed on 16 January 2022.

[56] https://www.akikawabokuen.com/, , last accessed on 16 January, 2022.

[57] https://yu-kinokyo.net/, , last accessed on 16 January, 2022.

KOFPC), Aira City's Organic Agriculture Promotion Council, and Minamitane-town Council for the Promotion of Organic Farming (南種子町有機農業推進協議会).

NGOs/NPOs and Others

Finally, the representative directors and core founding members of KOFA has been the core member of Organic Congress Japan (日本オーガニック会議), Zen-yukyo (National Organic Agriculture Promotion Council 全国有機農業推進協議会). In addition, KOFA has been collaborating with the Kagoshima Organic Agriculture Association (鹿児島県有機農業協会, KOAA[58]) since 2000, the PHD Foundation[59] since 1999, Kagoshima Organic Festa Committee[60] since 2007, an local children's kitchen[61] (森の子ども食堂) since 2016. Kagoshima University[62] and Kagoshima City Tourism Agricultural Park (鹿児島市観光農業公園) are also important actors in KOFA's ecosystem (see Figure 4-2 left below).

4.5 Scaling Strategies

This section elucidates the scaling strategies in terms of "scaling out", "scaling up" and "scaling deep" implemented by KOFA. It also points out two unconformities and even conflicts among organic farming partners during "scaling out".

4.5.1 Scaling Out

The main "scaling out" strategies KOFA has been implementing include (1) developing multiple organizational forms and involving more farmer members, staff, and newcomers, and (2) developing multiple sales channels and innovating new organic food products.

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[58]KOAA was established in 2000 as a registered certification body for organic agricultural products and as an organization to promote and educate the public about organic agriculture. It is the oldest NPO organization in the prefecture. Its purpose is to promote organic agriculture as well as to save lives and protect the environment. The female representative director of KOFA is one of the founding members of KOAA.

[59] A civil association based in Kobe that created a network between Japan and Asia and the South Pacific region. http://www.phd-kobe.org/, last accessed on 12 January 2022.

[60] Each year, the Organic Festa in Kagoshima employs over 50 volunteers and attracts over 50,000 visitors. Homepage of organic festa in Kagoshima, https://organic-fiesta-kagoshima.amebaownd.com/, last accessed on 12 January 2022.

[61] It was the first established social kitchen in Kagoshima City, (https://www.city.kagoshima.lg.jp/kodomofuku/kodomosyokudou.html, accessed on October 24, 2023). Chikyubatake periodical vol.188.

[62] According to the material obtained from KOFA, its farm cultivates traditional Kagoshima vegetables in collaboration with Kagoshima University.

Scaling out by increasing organizational forms and members

There are three types of organizational forms in KOFA: the Organic Farmers' Association, specialty shops and café, and directly managed farms. First, the KOFA's headquarters consists of ten departments that oversee the management of the farmers' association of about 160 members. Across Kagoshima Prefecture, Kumamoto Prefecture and Miyazaki Prefecture, farmer members organize workshops by their region, or by specific crops. These organizations play an important role in KOFA's annual production decisions and technology promotion. In terms of decision-making and agenda-setting, the association's governance board committee, which consists of eight members including three employees, three farmer members, and two representative directors, is responsible for organizing an annual meeting once a year. A new plan must be agreed upon by no less than half of all members (in person or delegated to others).

Second, Chikyubatake has experienced several times of new shops opening and closing, and now it has three specialty shops and a café in Kagoshima City. The female representative director of KOFA is the first actor who proposed the idea of opening an organic specialty shop for the surplus of farmer members. Members showed mixed reactions: "It's interesting, let's try it", "No way, it will just fail and create debt", and "I want to have our own shop, and complete on the quality of our own vegetables". Eventually, the director's strong insistence that "we definitely want to establish a direct sales store as a place to promote organic farming locally" was echoed by even those members with cautious opinions[63]. The rationale for the establishment of an organic specialty shop was slightly different from the initial intention of those in charge, who hoped to solve the problem of surplus vegetables, and ended up being "to promote organic farming in the local area by making people aware of the good taste of local organic vegetables and connecting producers and consumers." Accordingly, the first specialty shop[64] was open in the center of Kagoshima City in 1992. It was reported in the local newspaper Minami-Nihon Newspaper under the title "Organic farmers open a direct sale store" and subsequently introduced in the newspaper and on TV for several days[65]. Today, each of the Nishida, Arata, and Taniyama branches of specialty shops has its own concept based on its location and target customers. Each shop employs three to five people. The number of daily customers visiting these three shops amounts to approximately 500 to 700. Aiming to create a space for local people to have organic meals produced by local

[63] KOFA (2005), pp.138-9.

[64] The rent at the time was approximately 230,000 yen with 130 square meters of area. In order to save money, part of the construction and arrangement of the store was made by the hands of the farmer members using materials from a nearby closed supermarket.

[65] KOFA (2005), pp.138-9.

organic farmers, KOFA's first cafe, named 'A Ship over the Meadow (草原をわたる船)', was opened in the Arata branch specialty shop in 2006.

Third, KOFA launched directly managed farms in 2012. It started with 14 young people from different backgrounds who had no farming experience, land, or capital, but wanted to work independently in organic farming and fulfill the needs of society. In 2022, KOFA has a Kiire farm and a warehouse in Chiran town of Minami Kyushu City and an Okuchi Farm in Okuchi area of Isa City. The former primarily grows onions, green scallions, and sweet potatoes, whereas the latter grows root vegetables like turnips, carrots, and potatoes. Each farm is managed by two to five people, including two staff, part-time workers, and technical trainees.

Scaling out by developing sales channels and innovating new products

KOFA expands its sales channels to urban markets outside of Kagoshima prefecture by collaborating with multiple retailers and distributors. During the three development phases, diverse actors, including organic farmers and consumers, KOFA headquarters staff, NGOs/NPOs, PPP organizations and governmental bodies, play key roles in the expansion of these sales channels. During the formation phase, for example, through the introduction of a consumer member of *Tsukuru-Kai* who moved to Kagoshima from Osaka, KOFA connected with the head of KYLA. KOFA's supply to KYLA started with autumn citrus oranges, then, root crops, mainly sweet potatoes, taro, carrots, and onions. At the same time, KOFA supplied mandarins and oranges to school lunches in Takatsuki City and Ibaraki City, Osaka Prefecture via KYLA in 1985. Although school lunch supplies did not continue long due to the challenges in meeting the volume and size criteria set by the school lunch program, the partnership with KYLA still continues. It was with KYLA's experience and help that the first specialty shop opened successfully in 1992.

In 2021, KOFA's annual revenue reached 864 million JP yen[66] (about 6.75 million US dollars) in total. KOFA's farms and its farmer members are producing more than 120 items each year, including 300 tons of carrots, 150 tons of onion, 140 tons of potato, 130 tons of turnip, and 110 tons of sweet potato. Over eighty percent of these products are sold to the Kanto (Mega Tokyo region) and Kansai (Osaka, Kobe, and Kyoto region) metropolitan regions. In 2015, an innovating and processing group in KOFA further built its own brand, "Chikyubatake Original", for new processed products, such as juices, dressings, baby meals, and vegetarian sauces. Specifically, the products of organic baby meals have won the NPO Kagoshima Products Association's President Award (鹿児島県特産品協会理事長賞) in 2018. In addition, KOFA launched an export business with the help of

[66] According to the US Organic Trade Association, the organic market in Japan was worth 602.6 million US dollars in 2021, which indicates that KOFA's yearly volume accounts for 1.1 percent of the whole domestic market.

JETRO Kagoshima and participated in a local exporter fair (輸出商談会) in 2018[67]. Since then, the export department in KOFA has actively participated in overseas fairs. It exports sweet potato and processed food valued at 4.57 million yen to nine countries in Asia, the Middle East, and Europe in 2021[68]. KOFA also launched an e-commerce business in 2019, accounting for one percent of its annual sales through its own branding online shop and two major e-commerce platforms, Rakuten and YAHOO shopping.

4.5.2 Scaling Up

KOFA implements three kinds of "scaling up" strategies: advocacy for the advancement of the organic promotion law and involvement in new policy-setting, public-private partnership (PPP), and the application and use of subsidies.

Advocacy for the advancement of the law and the development of new policy

On December 15, 2006, the Act on Promotion of Organic Agriculture was unanimously passed as a parliamentary bill by the Cross-Party Diet Members' Federation for the Promotion of Organic Agriculture(有機農業推進議員連盟), comprising 45 members of House of Representatives and 38 members of the House of Councilors[69]. KOFA's representative directors have been invited to a study meeting of the Diet Members' Federation for the Promotion of Organic Agriculture in Tokyo about the current state of organic agriculture in Kagoshima and the vision for its promotion[70].

Furthermore, the male representative director attended the national strategy-setting meeting[71] on behalf of the organic agri-food sector, even though the end goal did't reflect his opinion. When the author asked him about his thoughts on this policy, he expressed his discontent and criticism as follows:

> *[The objective] is far too gentle. The goal for organic farming should be boosted to 50% by 2050. (The ultimate goal is 25%). We did everything we could to persuade MAFF of the need of supporting organic agriculture [...] It would be a reasonable target if we could solely supply organic food as school lunches. In Isumi City, Chiba Prefecture, 100% of the rice served in school lunches is organic, and agriculture*

[67] https://www.jetro.go.jp/case_study/2020/7354.html, last accessed on 19 August 2023.

[68] https://www.maff.go.jp/j/shokusan/export/gfp/attach/pdf/yusyutsu_keikaku_kohyo-290.pdf, last accessed on 12 January 2022.

[69] See Honjo (2017a, b) for details.

[70] Chikyubatake periodical vol. 189.

[71] The 13th Meeting for the Exchange of Opinions on the MIDORI Policy-setting. https://www.maff.go.jp/j/kanbo/kankyo/seisaku/midori/attach/pdf/team1-44.pdf, last accessed on August 21, 2023.

acreage has expanded dramatically. Why can't we promote it on a national scale? We will continue to promote organic agriculture in this region (in the Southern Kyushu area) regardless of the target in the policy.

Public-Private Partnership

KOFA has actively engaged in public-private partnership (PPP) with prefectural and local governments under national government-led projects, for example, the MAFF's Global Farmers and Food Manufacturers Project for export(GFP グローバル産地づくり推進事業 since 2020), Comprehensive Organic Agriculture Support Measures (有機農業総合支援事業), and a Comprehensive Collaborative Agreement on Regional Revitalization (地域活性化に関する包括連携協定), centered on organic agriculture, with Minamitae town in 2021. Among them, this subsection takes the case of PPP with local governments of Kagoshima prefecture, Aira City, and Minamtane town as examples.

First, KOFA is one of the founding members of the Kagoshima Organic Farming Promotion Council (かごしま有機農業推進協議会, KOFPC[72]). KOFPC, comprising three municipalities in Kagoshima Prefecture (Kagoshima City, Minami-Satsuma City, and Aira City), four producer and consumer groups (Aira Organic Group, MOA West Japan Sales, Kagoshima Consumer Cooperative, and KOFA), and KOAA, was established in 2008. It aims to respond to the national policy for the promotion of organic agriculture, by establishing a model town as the core project of organic farming promotion in Kagoshima prefecture and then expanding the production and consumption throughout the prefecture. The KOFPC was subsidized by MAFF as a model town project for FY 2008 and FY 2009.

Second, KOFA has been collaborating with Aira City[73]. Since 1989, a founding member of KOFA has served as the first leader of the "Aira Organic Farming Method Study Group," and has initiated and played an important role in the city's promotion of organic agriculture. Since then, it has about 40-year history of promoting organic farming in the region. The Support Center was established in Aira City in 2009, as one of the first projects

[72] The main goals and activities of KOFPC are to provide guidance and advice to newcomers and those in conversion to organic farming, to promote the distribution and sales of agricultural products produced by organic farmers, and to educate consumers and promote communication between organic farmers and consumers. For example, the KOFPC organizes events such as Bokashi seminars, public lectures, Organic Festa, and farm tours. The establishment and development of both KOFPC and KOAA are inseparable from the efforts of KOFA and its leaders.

[73] As a pioneer and principal public advocate for organic farming in Kagoshima Prefecture, Aira City has been working closely with KOFA. To the city, organic agriculture is “a type of farming that is close to nature and beneficial to both the soil and the human body” (AiraView vol. 163, p.3). In 2019, for example, the prefectural government published an organic farming manual based on Aira City’s original version to facilitate new and current organic farmers’ farming practices.

selected for the "Regional Organic Agriculture Facilities Building Project (地域有機農業施設整備業)" under the policy of "Comprehensive Organic Agriculture Support Measures (有機農業総合支援事業)" launched by the MAFF in 2008. The facility is a wooden two-story building with a total floor area of 276 square meters, equipped with accommodation, training facilities, a nursing facility, and a soil analysis room, and is operated by KOFA to serve as a base for supporting local farmers, including newcomer farmers. At present, Aira city has a mechanism for exchanging organic information on a regular basis with JA Aira, Kagoshima Prefecture, and other cities, sharing the most recent market conditions, farming methods and techniques, and sales promotions, and supporting organic farmers through the Support Center and the city's own financial incentive measures[74]. New entrant organic farmers' experiences highlight the crucial roles of the local JA and local and prefectural governments in providing them with access to land and accommodations (Iwamoto, 2012, p.60) as well as the role of KOFA in offering technical supports and information (AiraView, vol.233, p.7).

Third, KOFA has established the Minamitane-town Council for the Promotion of Organic Farming (南種子町有機農業推進協議会[75]) and reached a Comprehensive Collaborative Agreement on Regional Revitalization Centered on "Organic Agriculture"(「有機農業」を軸とした地域活性化に関する包括連携協定[76]) with Minami-Tane town in 2021. It aims to promote organic farming, revitalize the community through the restoration of abandoned farmland and the recruitment of new farmers, and create a sustainable community through organic farming. The numeric goal of this agreement is to increase organic farming acreage to 2 ha or more (potatoes and vegetables) by 2024. In particular, KOFA organizes the trials of the Aigamo robot in the rice paddy, organic agricultural experience events, organic school lunch projects, and workshops and seminars for new farmers. A video titled "Recycling in Minamitane-town[77]" about the project made by the Minamitane-town Council for the Promotion of Organic Farming and

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74 AIRAview, Vol. 162, p.4

75 It includes Minami-Tane Town, agricultural commission(農業委員会), Board of Education(教育委員会), Minami-Tane Town Community Development Corporation (南種子町まちづくり公社), Minami-Tane Town Community Center Liaison Council (南種子町公民館連絡協議会), JA Tanegayaku, Tourist Product Center Tongmee Market(観光物産館トンミー市場), Minami-Tane Town Chamber of Commerce and Industry(南種子町商工会), Environmental Conservation Agriculture Promotion Council(環境保全型農業推進協議会). http://www.town.minamitane.kagoshima.jp/industry/agriculture/organic/council.html, last accessed on August 20, 2023.

76 Organic Agriculture Implementation Plan. http://www.town.minamitane.kagoshima.jp/assets/files/pdf/yukisuishin/20230328organic-plan.pdf, last accessed on August 20, 2023.

77 "Recycling in Minamitane-town" on MAFF YouTube Channel. https://www.youtube.com/watch?v=LfP1Bawe2kI, last accessed on August 20, 2023.

KOFA has won the Minister of the Environment Prize for "2022 Sustainer Award: Communicating Japan's Sustainability to the World"[78].

Subsidies

KOFA has received multiple government subsidies, including the KOFPC-led Organic Business Practice Center Development Project (オーガニックビジネス実践拠点づくり事業[79]) of MAFF in 2020, Japan Brand Development Support Program (Japan ブランド育成支援等事業費補助金[80]) of METI in 2020, New Product Sales Expansion Support Program (新製品等販路拡大支援事業[81]) of Kagoshima Industry Support Center in 2023, Project to Power-up the Production Base in Producing Areas (産地生産基盤パワーアップ事業[82]) of MAFF in 2021, and Program for the Establishment of a Support System for Securing Agricultural Human Resources and Farming Employment (農業人材確保·就農サポート体制確立支援(地域の就農支援サポートタイプ) of MAFF in 2021.

Take the "Program for the Establishment of a Support System for Securing Agricultural Human Resources and Farming Employment" as an example. KOFA has made use of this national government subsidy to establish a trainee program to help newcomers succeed in farming after studying in the facilities. In 2021, KOFA established a special committee with the aim of reaching out to more people with the potential to become organic farmers and launching a training and follow-up program. The program consists of six parts[83]: (1) organizing farming events and field trips, (2) providing training in agricultural techniques, (3) arranging and securing farmland for new farmers; and (4) offering follow-up support for new entrant farmers, (5) supporting their daily life and (6) facilitating capacity building after them entering the agricultural sector. To date, more than 30 college and high school students have participated in the program's farming experiences events, ranging from one-day to two-week. And two of them have become full trainees and are being supported in their own agricultural activities.

4.5.3 Scaling Deep

In addition to the aforementioned issues of periodicals, workshops by farmer members, communication and collaboration with civic organic organizations (e.g., PHD foundation

78 MAFF, CAA and Ministry of the Environment implements the "AfunoWa 2030 Project(あふの環)" as part of the MIDORI policy. In this project, MAFF awards videos of sustainable initiatives related to food and the agriculture, forestry, and fisheries industries.

79 1,104,405 yen.

80 1,842,182 yen.

81 Up to 500,000 yen for Expansion of sales channels for organic vegetable baby food produced in Kagoshima Prefecture in the 8th Organic Forem JAPAN Organic Lifestyle EXPO 2023.

82 24,182,000 yen.

83 https://www.maff.go.jp/j/keiei/nougyou_jinzaiikusei_kakuho/attach/pdf/roudouryoku-30.pdf, last accessed on October 11, 2023.

and Organic Festa) and the establishment of a trainee and internship system, KOFA's "scaling deep" strategies also include teaching organic farming techniques in urban areas and abroad, organizing producer-consumer communication and organic promotion events, and providing part-time work opportunities for students to experience organic farming.

First, KOFA's directly managed farms provide technical assistance to individuals through collaboration with PPP organizations. For example, from 2012 to 2021, the KOFA operated organic farms in the Kagoshima City Tourism Agricultural Park for the Kagoshima City government. This project aimed to allow urban families to experience farming over the weekends. In addition, a group of organic experts of directly managed farms visited Nepal in 2017 and Vietnam in 2020 through a program of the Japan International Cooperation Agency (JICA).

Second, farmer members in KOFA have more opportunities to interact with consumers thanks to events, such as "farmer's selling day", in which various farmers are invited to sell in the shops by themselves, harvest activities on farms, and annual festivals managed by KOFA's specialty shops and café. Also, seminars and workshops on organic agriculture, health, and sustainable lifestyle are regularly organized for citizens. As shown in Figure 4-4, the specialty shops display promotional materials of organic products, post notice of events of the International Film Festival on Organic Farming (IFOF) in the shops and Chikyubatake periodicals, and encourage staff to watch documentary films[84] such as "Revolution began with school lunch (『給食からの革命』)", "Itadakimasu ~This is a fermentation paradise (『いただきますここは発酵の楽園』)", and "Too good to waste (『もったいない』)".

Finally, KOFA also creates a caring and inclusive network for part-time workers to experience organic farming more easily. They are paid more than average.

> *The minimum hourly wage in Kagoshima Prefecture is 821 yen. Normally, farmers in this area pay part-time workers 856 yen per hour, while we pay 900 yen. We aim to encourage more people to participate in and learn about organic agriculture so that we can convey its principles through such practices[85].* (Male, 40s, senior manager K)

A student club at Kagoshima University has collaborated with KOFA to organize a weekend farming event occasionally. Some of college students and high school students in the neighborhoods often come to work on weekends as part-time workers. Even high school students, who usually earn less in most cases in Japanese society, also earn a relatively higher hourly salary.

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[84] Chikyubatake periodical vol. 186 and vol. 196.

[85] The interview on 24 February 2022.

Figure 4-4 Promotional materials and posts in the specialty shops

Source: photos owned by the author.

4.5.4 Divergent opinions during "scaling out"

KOFA has also faced discrepancies in opinion among organic farming partners, especially between staff of directly managed farms. They are invoked by different understandings of organic farming and different ways of implementing it.

First, leadership, personal social and financial pressures, and the desire to fulfill the functions of the farmers' association cause disagreements and even conflicts among staff. The male representative director of KOFA refers to its ecosystem actors as "Nakama (仲間, meaning a "partner" in Japanese)". However, not everyone is welcome in KOFA. When encountering those who see organic agriculture merely as a means of making greater profits, for example, he always tells them that organic agriculture is not a vehicle for making money. Instead, he is willing to work with those who can feel grateful for nature's gift (KOFA, 2005). Such kind of leadership creates a filtering mechanism in the implementation of scaling strategies. In addition, the various financial and social pressures felt by KOFA's employees of different generations with diverse backgrounds at various stages of life naturally shape the filtering mechanism. Employees with fewer than three years of experience at KOFA gain a salary of about 120,000 yen per month, with a ten thousand yen increase every year. Employees in the headquarters earn slightly more than those on the farms. This amount of salary is not sufficient to support a traditional Japanese nuclear family usually with a full-time housewife and one or two children.

Therefore, young, foreign, and single male employees are more likely to experience work-life balance difficulties and financial stress if they are not sufficiently determined to become an organic farming "partner" in KOFA. On the other hand, highly experienced, often male[86] employees are satisfied with their jobs and life, regardless of whether they are married or not:

> *I'm pleased with my job... I simply need the money to get by. Individuals, in my opinion, do not need much money if they have enough food and a good job[87].* (Male, 40s, senior employee S)

KOFA's commitment to its responsibility as a farmers' association has led to conflicting views on farm management between a senior manager and the directors. KOFA prioritizes meeting the needs of its farmer members over making profits. For example, during the harvest seasons each year, plenty of labor, skills, and time are distributed from KOFA's directly managed farms to help member farmers in need, and farmers are only charged a minimal service fee. During the two-week field research, the first author witnessed a skilled employee visiting one farmer and helping him collect carrots, even though this skilled employee's own farm lacked labor to prepare and pack green scallions to guarantee daily profits. As such, offering the harvest service lowers the profit that KOFA could have made by processing and selling their own products to retailers. The manager of the farm told me,

> *I feel this type of service is one of the reasons my staff are paid so little. I used to dispute with our company about this issue and the management concept. I advised cutting such services... and increasing the business that may provide us with higher income. However, it did not work... I made a compromise... I respect our representative's idea.[88]* (Male, 40s, senior manager K)

Second, disagreements and conflicts could arise from KOFA's attitude toward conventional farming and distribution practices that rely more on mainstream organic fertilizer, seeds, and machines, and pay more attention to products' appearance and package (see Figure 4-5) under the promotion of the Organic JAS certification system. According to one former employee, "such commitment to market logic is inconsistent with the concept of organic agriculture[89]". It could also increase the labor of certified organic farms and narrows the opportunities for already marginalized small-scale farmers. The mere standardization of organic agricultural products through the

[86] Gender bias is still prevalent in agriculture and rural areas in Japan. This is not to say that the authors only focus on the issue from a male perspective, but I met more male full-time employees on the farm than women.

[87] The interview on 16 February 2022.

[88] Interview on 24 February 2022.

[89] Interview on 16 March 2022.

certification system not only disconnects consumers from producers, but also results in waste, overpacking, and wear and tear on farmers' energy, time and passion. During the two-week field visit, the author experienced the four-step procedure for processing scallions[90] on KOFA's farms. All these steps are required for green scallion farmers seeking to enter mainstream markets, such as supermarkets and specialty stores, to meet the standards of the Organic JAS certification system and those set by retailers. However, despite laborious one-year farming efforts and complex processing operations, the purchase price for each pack of two scallions is approximately 80 yen, close to the price of conventional agricultural products (Figure 4-5 up left).

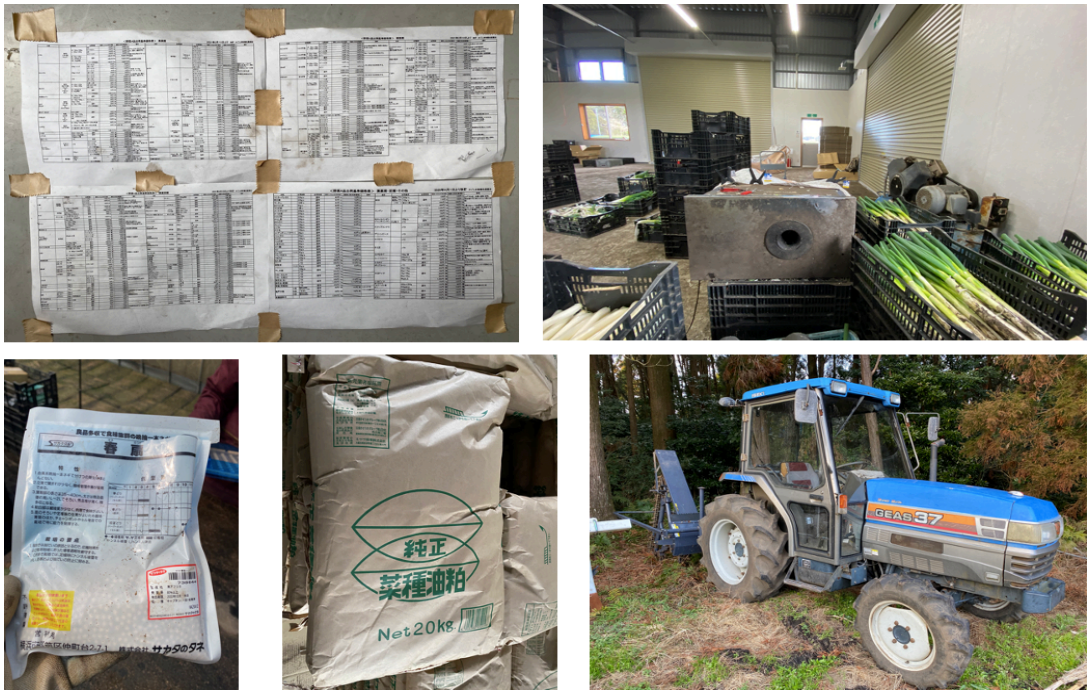

Figure 4-5 About farming and processing methods

Source: photos owned by the author.

[90] The processing of scallions is as follows: the first stage removes most of the yellow and damaged leaves and roots. The rough processed green scallions must be cut to the same length and put in a square basket (see Figure 4-5 up right). The remained old layer of leaves will be removed until three to four perfect green leaves are left in the second phase via an extremely noisy blowing-leaf machine, which is the most critical stage in achieving a flawless look. According to merchants, such perfection is "needed by customers shopping at the supermarket." Each pack of two green scallions must weigh a range of 200g to 230g. They must be wrapped in one plastic bag labeled with the JAS Organic logo. The root parts are wetted before being wrapped in order to keep them looking fresh. The organic label should also be attached to the cardboard boxes with 20, 25, or 30 packs. These boxes will be delivered by mainstream distribution firms.

4.6 Discussion

4.6.1 SI Ecosystem

KOFA began as a social movement in the late 1970s when organic agriculture remained a niche. Organic farmers used to be marginalized and called weirdos. Over the recent two decades, the economic and socio-political environments where organic farmers and stakeholders are embedded have changed. The changes are manifested in the de-stigmatization and legitimation of organic agriculture under the enforcement of the Act of Promotion on Organic Agriculture, commercialization facilitated by the Organic JAS certification system, consistent efforts by grassroots organizations, and the national, prefectural and local policies on the promotion of organic agriculture.

After three phases of development in response to changes in the external environments, KOFA's current ecosystem consists of five groups of actors in addition to its own organizations and employees, as shown in Figure 4-6. They are (1) organic farmer members, (2) partners and retailers, (3) governmental bodies (4) PPP organizations and (5) NGOs/NPOs and others. The common ground among these actors is the belief that organic agriculture has a crucial and positive role to play in addressing the environmental, social, and economic problems and related social concerns posed by the current agri-food system. Meanwhile, this common ground strengthens mutual trust and collaboration between the actors.

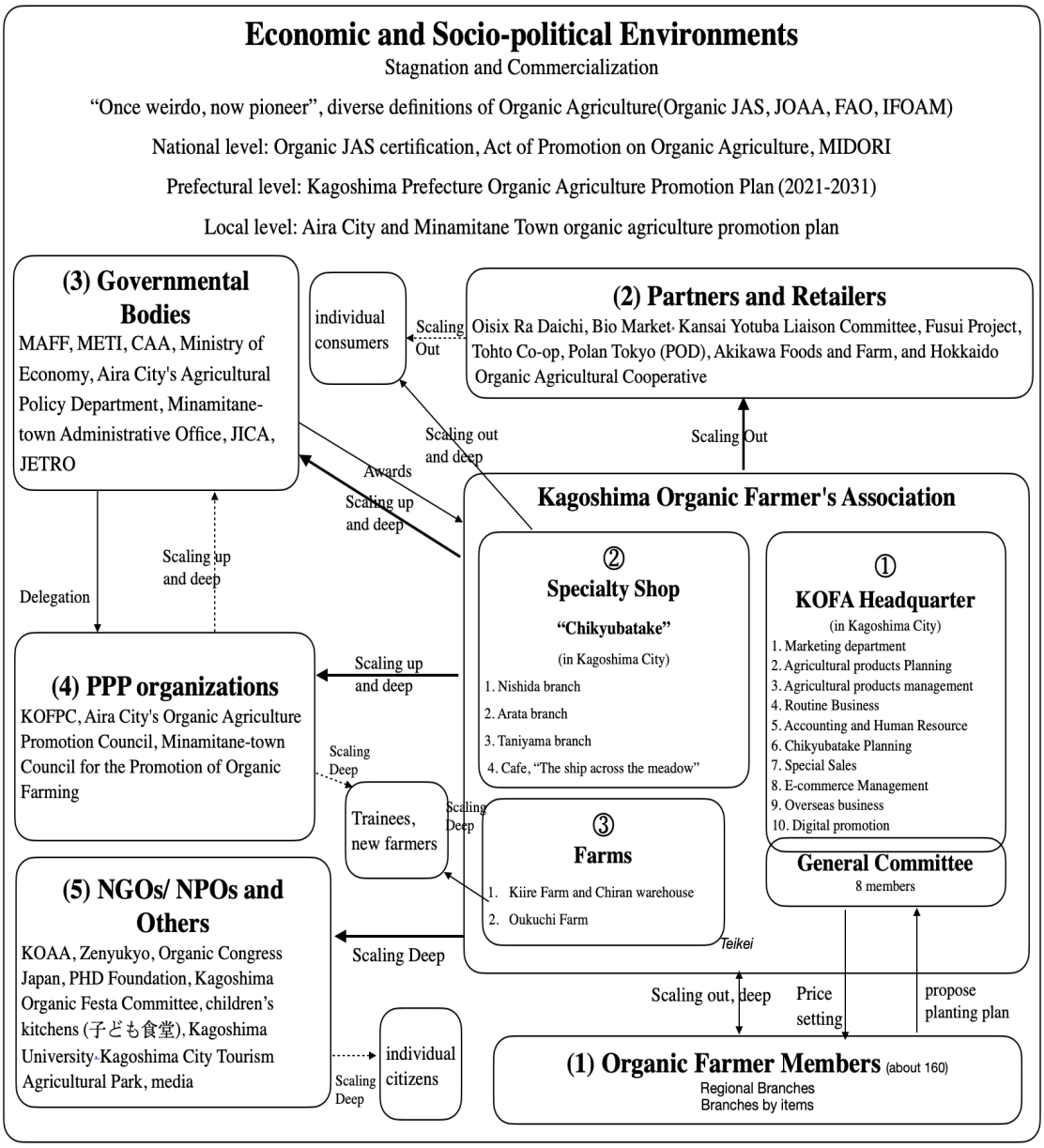

Figure 4-6 Ecosystem of KOFA

Source: elaborated by the author.

4.6.2 Scaling Strategies

This sub-section summarizes and examines the scaling strategies employed by KOFA, with a focus on the discussion among actors within the ecosystem who carry out the strategies and those who praise KOFA's practices.

Scaling Out Strategies

The "scaling out" strategies used by KOFA take several approaches, such as the development of diverse organizational designs, augmentation of employee and farmer membership, expansion of novel sales channels, and the introduction of innovative organic food products. In KOFA, three forms of organizations have been established,

namely the Organic Farmers' Association, specialty shops and cafés, and directly managed farms. These entities were initially established primarily to address the economic challenges associated with surplus products from farmer members, as well as to ensure the long-term viability of organic farming practices within the KOFA community. These organizational forms overlap in many places, hence generating further relationships and interactions involving numerous stakeholders. The multiple sales channels and novel organic food products enable KOFA to reach out to consumers inside and outside Kagoshima Prefecture and even overseas.

The actors in the implementation of "scaling out" strategies are KOFA's representative directors, staff in all departments in the headquarters, and farmer members, as well as the actors of partners and retailers, national, prefectural and local governments, and media and individual consumers. NPOs with the character of industry associations, and other actors in the economic environment, such as retailers and consumers, have praised KOFA's practices. In particular, the original brand of organic baby food has won a President Award of the NPO Kagoshima Products Association. Partners and retailers, representative directors and senior members of KOFA, among others, have more power in decision-making. However, the way leadership is exercised, the social and financial pressures on individuals, and the inclination of the Farmers' Association to fulfill its functions, could lead to disagreements and even conflicts among staff. In addition, excessive compromises on commercialization could drain the energy and enthusiasm of new organic farmers and other stakeholders, thus undermining the sustainable growth of organic agriculture. In this context, KOFA's multiple sales channels are crucial for maintaining diversity and equity in the organic agri-food sector.

Scaling Up Strategies

KOFA's "scaling up" strategies involve advocacy for the enactment and implementation of the Organic Agriculture Promotion Law, involvement in setting new policies, participation in public-private partnership (PPP), and utilizing subsidies. KOFA, as a founding member, collaborates with local governments and other stakeholders to establish a promotion council and develop a 5–10-year plan with specific numerical targets in the common form of public-private partnerships. During the implementation phase, KOFA primarily provides technical assistance and coordinates promotional activities for the general public, sometimes making use of grants and subsidies.

Actors in the implementation of "scaling up" strategies are KOFA's representative directors, several founding organic farmer members and staff in the three bodies of KOFA, as well as various levels of governments and PPP organizations. Among these actors, it is the governmental bodies and PPP organizations that have more power in decision-making and goal-setting, while KOFA is the actor for implementation. In particular, the leadership of the two representative directors plays a major role in driving these

strategies. In addition to the directors, some of KOFA's founding members and senior managers are implementing actors in the application of grants and subsidies and in the initial phase of PPP, along with employees of the relevant KOFA departments in the operational phases of PPP. Among the national governmental bodies that have praised the "success" of PPP practices MAFF, CAA and the Ministry of Environment have given awards to KOFA under the MeaDRI policy (now called MIDORI, Green Food Systems Strategy).

Scaling Deep Strategies

KOFA's "scaling deep" strategies include publishing periodicals, distributing promotional materials, setting up trainee and internship programs, teaching organic farming techniques, organizing and participating in producer-consumer communication and organic promotion events, and offering part-time job opportunities. The actors implementing the strategies are all members of KOFA, including employees of the headquarters, specialty shops and café, and directly managed farms; farmer members of the association; PPP organizations and NGOs/NPOs; and others including trainees, interns, part-time workers, consumers, organic consumer and producer organizations, media, and some governmental bodies in partnership with KOFA. Most of these actor groups are involved in the implementation of the scaling deep strategies, even if they may have different motivations and understandings of organic agriculture. It is noteworthy that without government subsidies and PPP with government bodies, it would be difficult for KOFA to effectively implement these strategies in its overseas projects or in projects related to the construction of technical facilities. In this sense, multiple levels of governmental bodies and PPP organizations also play a major role in shaping the potential of KOFA's "scaling deep" strategies for the promotion of organic agriculture.

When it comes to the scale and diversity of actors inside and outside Kagoshima Prefecture and even overseas, the implementation of "scaling deep" strategies is a key factor in forming a more inclusive and relatively more equitable KOFA-centered ecosystem and beneficially fulfilling its social functions. In addition, the encounter with organic agriculture was one of the key reasons that led the youth to become new organic farmers in this case study. New farmers are crucial for the future and sustainable development of organic agri-food systems. Therefore, the practice of "scaling deep" strategies needs to be more appreciated and brought to the attention of the general public.

4.7 Conclusion

In conclusion, KOFA has involved diverse actors from the market, government and civil society sectors to form an intricate and organic ecosystem that transcends the local, regional and even national scales. This is owing to KOFA's implementation of scaling strategies in terms of "scaling out", "scaling up" and "scaling deep". These strategies

sometimes intertwine and multiply each other's effectiveness. This ensures diversity and dynamics in the development of the SI ecosystem. Among all implementing actors, the two representative directors, senior managers and farmer members have more say than others in decision-making and goal-setting. However, the final numerical and non-numerical targets and financial resources are determined by multi-level government bodies and government officials within PPP organizations. This means that they are key actors with the power to constrain or facilitate KOFA's potential to transform the current organic agri-food system, and scaling strategies can be successfully implemented only when the ideas of bottom-up SI are aligned with the interests of these governmental bodies and officials.

It is also worth noting that only when KOFA implements "scaling out" and "scaling up" strategies, do they tend to receive visible "success" outcomes in the form of honorary awards from national government bodies and industry associations. In comparison, the literature review indicates that the implementation of "scaling deep" is often underestimated by powerful governmental bodies and economic actors as well as academia and that the sustainable development of organic agriculture relies on "scaling out" and "scaling up" strategies. However, "scaling deep" practices are an effective way to promote organic agriculture at scale and depth. It is the "scaling deep" strategies that give most actors inside ("Nakama") and outside the ecosystem the opportunity to encounter organic agriculture in a more direct, equal and diverse manner than other strategies. Therefore, in addition to the practices and outcomes of "scaling out" and "scaling up" strategies, policymakers and academia should pay more attention to the process and outcomes of SI implementation of "scaling deep" strategies and the changing needs and mindset of relevant actors in the SI ecosystem in order to transform organic agri-food systems.

Chapter 5: Agriculture-Supporting Social Innovation: A Case Study of the Time for Agri

5.1 Introduction

Over the past few years, the problems of declining population and aging have been pronounced and serious in rural Japan (Kaneko, 2008; Villanueva, 2000). Adding to these problems is the outflux of young people from rural areas to study, work, and settle in metropolitan areas after graduating from high school. These urban populations rarely move back to rural areas (Koike, 2021). Such demographic changes have caused long-term population declines in 38 of Japan's 47 prefectures (see Figure 1-2), while several large cities, primarily in the Tokyo metropolitan area, including Tokyo and neighboring Saitama, Chiba, and Kanagawa prefectures, are experiencing population increases. The Tokyo metropolitan area accounts for 29.4% of Japan's total population (36.9 million) in 2020 (Statistics Bureau, 2020).

Against this backdrop, the Japanese government, labor market, and voluntary sector have been attempting to solve social and economic problems caused by these demographic changes by replacing the labor force through innovations, introducing new labor, and inducing labor migration flows. In recent years, bottom-up social innovations have also emerged, which are created through collaboration between local and non-local actors (e.g., Tsuru, 2022; Nikaidō, 2020). This chapter draws attention to such bottom-up SIs and aims to understand what constrains or facilitates the potential of these bottom-up SIs to address demographic problems and transform the current agri-food system and distressed rural communities in a sustainable manner. This chapter particularly focuses on the implementation of scaling strategies from an SI ecosystem perspective by answering the following four research questions. To be specific, a small-scale agricultural supporting project "Agrinajikan (アグリナジカン)", or Time for Agri, is taken as a case study.

Objective 1: To understand the Time for Agri ecosystem.

1. What are the socio-political and economic environments in which the Time for Agri is embedded?
2. Who are the key actors in the ecosystem?

Objective 2: To examine the scaling strategies implemented by Time for Agri.

1. What scaling strategies are employed?
2. How and by which actors scaling strategies can be successfully implemented and why?

The remainder of this chapter is structured as follows. The next section presents current solutions to address demographic challenges in agriculture and rural areas in

Japan through a literature review. Section 3 provides a brief background of the case study and the methodology, including data collection methods. The ecosystem of Time for Agri, comprising the economic and socio-political environments and various actors at the local level, and the implementation of scaling strategies and its difficulties will be presented in Section 4 and Section 5. Finally, these findings are discussed with conclusions in Section 6.

5.2 Current Solutions for Demographic Challenges

Current approaches of "new social design" adopted by scholars, governments, markets, and civic actors to solve the demographic problems in rural agriculture include (1) solving labor shortages through technological innovation, (2) introducing new labor force, and (3) inducing an influx of existing labor into rural areas and agriculture.

Technology-oriented Innovation

First, innovation is considered as an effective solution to current problems in rural areas and agriculture. In traditional innovation theory, the theoretical focus is on material and technological inventions, scientific knowledge, and the economic rationale for innovation (Bock, 2012). The adoption of new technologies and concepts in places with declining populations-depopulated and poor living conditions is expected to bring significant benefits and enhance sustainability (Fujinami, 2017). In this vein, the national government is promoting technological innovation through interdisciplinary programs such as the Sixth Basic Plan for Science, Technology, and Innovation, the Integrated Innovation Strategy, and Smart Agriculture, which includes big data, artificial intelligence, the Internet of Things, and digital transformation of agriculture (DX) (MAFF, 2020b). However, such economic development-oriented policies are not only inadequate to address population decline and aging but also would fail to mitigate the increasing out-migration of rural youth. Moreover, such top-down, technology-oriented innovation policies ignore the capabilities, opportunities, and well-being of rural communities (Păunescu, 2014).

Creating a new labor force

Second, the new labor force to be introduced includes women, who are regarded as a "industrial reserve army" in Japanese society, as well as foreigners. The Cabinet Office and the Ministry of Agriculture, Forestry and Fisheries (MAFF), among others, encourage women to work in order to revitalize agriculture and rural areas (this point will be elaborated more in Chapter 8). For example, the 2019 Annual Report on Food, Agriculture and Rural Areas emphasizes the important roles women play in generating income from the transformation of agriculture and rural areas and promotes the *Nogyo Joshi* Project

(Agri-Girls Project) (MAFF, 2020a). However, this policy has been criticized by many gender scholars for lacking reflection on the current state of agriculture, forestry, fisheries and rural management, failing to recognize differences between women in terms of knowledge, skills and physical characteristics, and rather pursuing an increase in female labor force (Iwashima, 2019).

In addition, the number of foreign laborers[91] in the agricultural sector has more than doubled from 17,476 in 2014 to 38,064 in 2020, the majority of whom are technical intern trainees (Tsubota, 2021, pp. 44-47) in the "Technical Intern Training for Foreign Nationals" program[92]. However, this program has been criticized for deviating from its initial purpose and being used to fill labor shortages. Social and ethical problems have also surfaced (Miyajima and Suzuki, 2019), with unscrupulous organizations forcing trainees to work excessively long hours at low wages (Katahira and Kaneko, 2018; Tsubota, 2018). In addition, small-scale family farmers and agricultural enterprises receive the majority of agricultural trainees in Japan However, it is important to highlight that under the existing trainee system, foreign technical trainees are more commonly employed by community-based special corporations operated by Japan Agricultural Cooperatives (JA) rather than small-scale farmers (Nakahara and Nakatsuka, 2021). As foreign agricultural labor is mostly concentrated in high-pay regions near metropolitan areas, resulting in no benefits reaching rural areas (Tsubota, 2018). This has resulted in the emergence of disparities among agricultural management bodies in various localities.

Inducing labor flows

The third strategy is to induce labor flows from urban to rural areas, or from non-agriculture to agriculture. In addition to traditional ways of securing labor such as farmer networks and private or public agricultural job-seeking platforms (e.g., Hello Work, Agri-

[91] Presently, there are solely four pathways available for the admission of foreign individuals in the agricultural industry, contingent upon their residency status: technical internship, specified technical skills, advanced professional occupations (encompassing technical and humanities work), and miscellaneous categories (comprising of Japanese descent and Japanese spouses). Among them, 1025 are Specified Skilled Workers (https://www.mhlw.go.jp/content/11655000/000728549.pdf, last accessed on October 16, 2023.

[92] *The Technical Intern Training Program* was established in 1993 with the objective of assisting developing countries by providing their people with the opportunity to work in Japan and acquire knowledge technologies and skills that can be used for the economic development of their respective countries and "shall not be conducted as a means of adjusting labor supply and demand" (Article 3, Paragraph 2 of the Act). Japan introduced a new visa (maximum five years) known as the Technical Intern Training, or "Ginou Jisshu" in Japanese, in July 2010. The overall count of Technical Intern Trainees rose from 274,233 in 2017 to 324,940 in 2022 (As a result of the COVID-19 pandemic, the figure reached its highest point of 410,972 in 2019 and had a significant decrease in 2021). The majority of trainees originate from Vietnam (176,346), Indonesia (45,919), the Philippines (29,140) and China (28,802). As of July 24, 2023, there are eligible 161 operations in 88 job categories for Technical Intern Training. Among them, agriculture, fishery and food manufacturing occupy 34 operations in 15 job categories. Noticeably, tea and rice growers are unable to employ technical intern trainees (https://www.otit.go.jp/files/user/230804_ENG.pdf, https://www.mhlw.go.jp/content/001126043.pdf, last accessed on October 16, 2023).

navi.com, agreen.jp, and sangyo.net), new types of solutions have been applied in recent years. To begin with, the Ministry of Internal Affairs and Communications (MIC) implemented the "Relational Population Creation Project (関係人口創出事業)" in 2018, which lead to the promotion of local/regional tourism and "U-turn" or "I-turn" migration[93] by industry, government and academia as well as local community actors. The Cabinet Office also implemented the Regional Revitalization and Migration Support Program (地方創生移住支援事業) and the Regional Revitalization Entrepreneur Support Program (起業支援金) in 2019, disbursing 3.15 billion yen in 2019, 2.90 billion yen in 2020, and 2.92 billion yen in 2021[94]. By the end of 2020, 686 relocation projects and 818 newly established businesses received these subsidies (Cabinet Office, 2021). However, the effectiveness of these schemes is inadequate and inefficient compared to the current population of the Tokyo metropolitan area (36.94 million in 2020). Although young migrants play a crucial role in maintaining existing social functions and bringing new ideas and practices into settled communities (Obikwelu et al., 2018), they are rarely accepcted in most marginalized rural communities (National Depopulated Areas Self-Reliance Promotion Federation, 2020), creating and increasing inequalities among rural communities.

With regard to the training of new farmers, the MAFF's Agricultural Employment Support Program (農の雇用事業)[95] provides subsidies agricultural corporations and farmers who train trainees in order to encourage potential new farmers to enter agriculture (MAFF, n.d.). However, in 2019, 564 (35.4%) of the 1,591 trainees ended up leaving agriculture. The top three reasons for leaving were that "the job content did not meet their expectations" (35.9%), "dissatisfaction with income" (19.7%), and "long working hours" (13.4%) (MIC, 2021).

In addition to encouraging migration and creating new-entry farmers, supporting agricultural volunteer programs linking urban and rural areas is another way to redirect the labor force. In suburban and metropolitan areas, local government and citizen-led

[93] "U-turn" refers to urban dwellers returning to their hometowns, while "I-turn" refers to urban dwellers moving to non-local areas.

[94] The author computed the budget using the Cabinet Office's yearly report. These programmes encourage people who have lived in or commuted to work in Tokyo's 23 wards for at least five years to immigrate to depopulation regions in or outside of the Tokyo Megalopolis Region. The Regional Revitalization Migration Support Project and Matching Support Project provide up to one million yen to each person who relocates to the area and finds work. Those who start a new business in their community will get up to 3 million yen from the Regional Revitalization Entrepreneur Support Project fund.

[95] The Agricultural Employment Support Programme (農の雇用事業) is a two to four-year financial assistance project. MAFF subsidizes 1.2 million yen per year to qualifying agricultural businesses or farmers that give agricultural training to persons under the age of 49 who want to be new farmers.

volunteer initiatives are seen as a win-win solution for urban-rural exchange (Funato, 2013; Kitagawa & Hattori, 2014; Konno, 2021; Suzumura, 2017; Watanabe & Yagi, 2006; Yagi & Murakami, 2003). Agricultural volunteer programs conducted by municipal governments, JA, and NPOs reflect a strong sense of caring and social responsibility, which is distinct from other economically oriented strategies (Kitagawa & Hattori, 2014) and ultimately benefit agriculture and rural communities by cultivating supporters and new stakeholders (Yagi & Murakami, 2003; Watanabe & Yagi, 2006). However, it was found that these volunteers do not form thick and lasting bonds with other participants (Kitagawa & Hattori, 2014) and do not become new farmers, much less rural residents in depopulated communities.

In recent years, part-time and seasonal workers have become increasingly important in remote communities, not only as labor force and potential migrants (Iwasaki, 2020) but also as social innovators. According to conventional social norms, not having a regular job, such as being a part-time and seasonal worker, deviates from the standard way of life in Japanese society and creates discrimination and anxiety toward those who do not have regular jobs. The concept of "freeter (フリーター)[96]" emerged in the 1980s initially as a new way of life with freedom and dreams, became a social problem during the economic decline in the 1990s, and then was presented in the 2000s as a critical concept for youth without independence (Umeda, 2022, pp.48-9). From the 2010s onwards, a new trend of an increasing number of people practicing alternative lifestyles that deviate from the "standard" way of life and values in Japanese society began to attract attention, forming a positive discourse on "freeters", as the unstable and disparate employment structure was regarded as a problem (Umeda, 2022). Young "freeters" are now perceived not only as indispensable human resources in agriculture and rural revitalization in remote areas, but even as social innovators (Konno, 2019; Ueno and Kobayashi, 2020; Magaki, 2019; Iwasaki, 2020). Bottom-up SI cases related to "freeters" are emerging and gaining recognition in remote communities such as Hokkaido (Konno, 2019, Ueno and Kobayashi, 2020) and Ehime prefecture (Magaki, 2019; Iwasaki, 2020; Nagashiro, 2023). The case discussed in this chapter is one of these successful bottom-up SI cases related to "freeters" as seasonal workers.

[96] Freeter are the people who have no regular full-time job, but with one or more part-time jobs, or moving from one short-term job to another. In general, freeters can be categorized into "dream pursuer" type, "moratorium" type and "compulsory" type.

5.3 Methodology

5.3.1 A Brief Introduction to Time for Agri

The Time for Agri project originated from a project in Wazuka town[97] in Kyoto prefecture, Wazukanojikan (ワヅカナジカン), or Time for Wazuka. The founder of Time for Agri is a U-turner, who returned to Wazuka town from Osaka City and became an employee of the Wazuka Town Employment Promotion Council (和束町雇用促進協議会[98]) in 2012. While working for the council, he realized that solving the labor shortage of tea farmers would be an effective means of mitigating the negative impact of demographic change on remote and severely depopulated areas and providing new opportunities for the economic and social revitalization of rural communities in Wazuka town, and launched the Time for Wazuka project in 2014. For the first round, three farmers and 14 youths from urban areas as farm workers participated in the Time for Wazuka project, with workers living in the founder's house, as shown in Figure 5-1. The farm workers worked from May to July, harvesting tea and carrying tea bags (20~30kg each) to the tea farms' warehouses, with some helping with processing as well. As a result, three of the 14 youth workers moved to Wazuka town. The founder of Time for Agri left the Wazuka Town Employment Promotion Council and established a joint venture, You and Village LLC, in 2015, which collaborates with the Wazuka Town Hall on regional tourism and rural revitalization projects.

Through six rounds of Time for Wazuka projects up to 2019, 80 young participants have engaged in the projects, eight of whom have settled in the local communities. The founder made some changes to the mission, placing more emphasis on providing urban youth with opportunities and support to engage in farming and rural life. This shift was made because his 6-year working experience in Osaka allowed him to understand the struggles of metropolitan youths, including the stress and loss of dignity in urban life and lack of access to the countryside and agriculture. He thus developed his own vision of "En-nou (agricultural support)", which differs from the general understandings (Lu, 2021), as follows:

> *The general definition of "Ennou" is to help farmers with their production. Japanese agriculture is now experiencing a serious labor crisis and farmers are looking for*

[97] Wazuka Town is the prominent producer of Uji-brand tea, and the tea industry is its primary economic sector.

[98] The Wazuka Town Employment Promotion Council was established by Wazuka Town, JA Kyoto Yamashiro, Wazuka Town Chamber of Commerce and Industry in 2008.It has been andcommissioned under "the Promoting New Farmers Project" by the Ministry of Health, Labor and Welfare and received about 50 million yen each year since 2009. https://www.mhlw.go.jp/spending/top; http://wazukakoyo.com/, last accessed on October 17, 2023.

people who are able and willing to work. The basic principle of the labor market is that laborers work hard, and farmers compensate them with money and goods. Such logic makes agriculture a hostile industry for those who are not just interested in making money. Our innovation gives young people a chance to experience different agricultural jobs in different locations during the harvest season, in which they may be able to discover a career they would like to do for the rest of their lives. I believe that "Ennou" should mean assistance to young people who want to work and solve problems in agriculture. (The founder of Time for Agri, male, early 40s)

At the same time, he decided to institutionalize the project as a profitable social business, called "Agrinajican" or Time for Agri, and moved the business base to Minabe Town (Wakayama Prefecture) in 2020. Currently, its business clusters are located in 22 cities/towns in eight prefectures across Japan.

Figure 5-1 The founder at You and Village and share house Tsunagiba

Source: owned by the author (June 13, 2019, left) and Time for Agri official website (right).

5.3.2 Data collection methods and analysis

One case study is conducted in this chapter. Four qualitative research methods were used to collect data for this study: (1) unstructured and semi-structured interviews; (2) direct and participatory on-site observations; (3) questionnaire surveys of participating youth workers; and (4) gray literature and media analysis.

First, the author conducted 11 interviews during multiple field visits to the project sites in Kyoto and Wakayama prefectures between 2017 and 2021, as shown in Table 5-1. This is because Time for Agri originated in Wazuka town and prospered in both Wazuka town and Minabe Town. Interviewees included the founder of Time for Agri, registered farmers, successors, NPO staff, and prefectural government officials. Each interview lasted between 30 minutes and 6 hours including lunch time. All unstructured interviews were noted down and semi-structured interviews were recorded with permission and transcribed prior to analysis.

Table 5-1 Outline of interviews in Time for Agri case study

No	Date	interviewee	Location	Form
1	December 6, 2017	founder of Time for Agri	Wazuka cafe	unstructured
2	June 13, 2019	founder of Time for Agri	Time for Wazuka Office	unstructured
3	December 5, 2019	Kyoto prefecture MAFF official	government office	semi-structured
4	December 12, 2019	Kyoto Regional Revitalization Bureau officials	government office	semi-structured
5	August 8, 2020	A tea farmer and an NPO staff	Virtual (Messenger)	semi-structured
6	November 6, 2020	NPO director	Wazuka cafe	unstructured
7	November 9, 2020	NPO director	Wazuka cafe	unstructured
8	August 23, 2021	plum farmer/chairman of Wakayama Agriculturalists Liaison Council	plum processing warehouse	semi-structured
9	August 23, 2021	founder of Time for Agri	Time for Agri's share house	unstructured
10	August 26, 2021	plum farmer's successor	plum processing warehouse	unstructured
11	August 29, 2021	Wakayama prefecture MAFF official	director's home in Wakayama	semi-structured

Second, the author conducted a participatory observation in a registered farm in a small village of 35 households and only five elementary schoolchildren in Minabe town, from August 13 to September 10, 2021. As shown in Figure 5-2, from August 19 to September 10, the author worked 7-10 hours a day sorting salted plums as farm work and lived in a shared house provided by the farmer.

Figure 5-2 Sorting Salted Plums in Minabe Town

Source: owned by the author.

Third, from July to August 2021, the author distributed a questionnaire to about 60 workers through the founder of Time for Agri. The questionnaire contained six topics: (1) participants' purpose and motivation, (2) self-identification at work, (3) dignity in the workplace, (4) sense of accomplishment, (5) reflection, and (6) future plans, in addition to basic biographical information and farming experiences. As summarized in Table 5-2, 10 responses were received from participants who had worked in Minabe (Wakayama), Wazuka (Kyoto), and Abu (Yamaguchi) for one to five months. Respondents were young people aged between 24 and 46 years living urban areas across the country. Most of them are “freeter” or freelance workers. Prior to joining the initiative, most of them had little to no knowledge or experience of agriculture.

Table 5-2 Outline of respondents in the questionnaire survey

Sex	Age	Identity	Motivation	Work Location	Duration (2021)	Item	Living City/Town
Female	late 40s	freelance	Friend's introduction. Match in time. Interest in	Minabe (Wakayama)	Jun. 8-Jul. 10	plum	Kobe city, Hyogo prefecture

			moving to Wakayama.				
Male	early 40s		interact with local people, know more about tea	Wazuka (Kyoto)	May 4-Jun. 12	tea	
Female	early 30s	part-time worker	curious about the operation of the Time for Agri project	Wazuka (Kyoto)	Apr. 20-Jul. 16	tea	Kanagawa prefecture
Male	early 30s	part-time worker	try on a new work after quitting the office job	Wazuka (Kyoto)	Apr.25-Jul. 31	tea	Osaka city
Male	late 20s	freeter	Friend's introduction.	Minabe (Wakayama), Wazuka (Kyoto)	May 3-Jul. 10	plum and tea	Obihiro City, Hokkaido
Male	early 40s	seasonal worker	experience living in Minabe town and the work of plum	Minabe (Wakayama)	May 25-Jul. 10	plum	Kyoto city, Kyoto prefecture
Female	early 40s	nursery schooltea cher	interested in the tea farming	Wazuka (Kyoto)	Apr. 1-Jul. 28	tea	Yao City, Osaka
Female	late 20s	freeter	experience farming	Abu (Yamaguchi)		water melon	Abu town, Yamaguchi
Female	late 20s		interested in farming and share house	Wazuka (Kyoto)	May 4-Oct. 27	tea	Kizugawa City, Kyoto Prefecture
Female	early 20s	freeter	experience farming	Abu (Yamaguchi)	May 15-Aug. 20	water melon	Chigasaki City, Kanagawa

Finally, a document and media analysis were conducted based on the data obtained from Time for Agri's official website, Facebook account, YouTube channel, stand.fm, official reports, literature, and newspaper articles. In particular, the second-hand materials include 79 blogs, 192 worker recruitment notices and brief introductions for 101 farming or processing entities on the official website (2019-2023), 31 audio clips on stand.fm (2020-2023), 84 videos on the YouTube Channel (2020-2023), and 5 annual reports of Time for Wazuka (2015-2019) by the NPO Hollelife[99].

[99] NPO hello life was established as a public development project for solving social problems in 2008.It provides problem-solving plans based on its knowledge of organizational strategy and the development and

5.4 SI Ecosystem

This section depicts the Time for Agri ecosystem by presenting the economic and socio-political environments in Wazuka Town, Abu Town and Minabe Town, as well as six groups of key actors including coordinators, the registered producing entities, farm workers, governmental bodies, PPP organizations and intermediaries.

5.4.1 Economic and Socio-political Environments

While the business area is spread across eight prefectures, the focus in this subsection is on the economic and socio-political environments of the communities where Time for Agri is deeply involved in civic activities and public-private partnerships with municipalities, namely Wazuka Town, Abu Town, and Minabe Town.

Wazuka Town, Kyoto Prefecture

Wazuka town is located in a mountainous area of the Yamashiro region in southern Kyoto Prefecture. It is listed among the "Most Beautiful Villages in Japan" and recognized as a Japanese Heritage site for its tea plantation landscape. However, the demographic problem is serious: the population in 2019 was 3,955, decreasing by about 100 people per year, with an aging rate of 38.3%. It is estimated that the population will shrink to 1,294 by 2060, with tea-producing households decreasing by 10 percent annually (Research National Institute of Population and Social Security, 2018). In addition, Wazuka Town is known as a major producer of Uji-brand tea, with 230 of the 263 agricultural management entities operating in the tea sector, but many of them are aging and in need of labor due to a lack of successors. Against this unfavorable background, Wazuka Twon has been for two decades to revitalize the town and is now recognized as a successful example of a declining community in a remote area. Umehara (2020) examines the local governance of Wazuka town and divides its development into three phases: the dawn phase (2000-2006), the take-off phase (2007-2012) and the small-scale, multi-functional and plural-type phase (2012-2018) (Umehara, 2020). In the first phase, in addition to tea-centered groups (e.g., Hokkori Circle, Wazuka Organic Tea Industry Study Group, acceptance of international volunteer NGO NICE), a loose network of local non-tea farming practitioners, such as Koicha Group (恋茶グループ) and NPO tea friends, as well as migrant-led social enterprises, such as Kyoto Obubu Tea Garden (京都おぶぶ茶苑), was formed, competing and cooperating with each other. The opening of the Wazuka café, the establishment of the Wazuka Town Employment Promotion Council, media coverage,

operation of employment support systems for companies, governments and individuals facing various problems related to 'work'. https://co.hellolife.jp/, last accessed on August 24, 2023.

approaches from non-local actors (universities and individuals), innovative activities by migrants and active promotion by the Wazuka Town administration made Wazuka Town a famous success story of rural revitalization from the second phase onwards (Umehara, 2020). As a result, Wazuka town has created a socio-political environment suitable for migration, new activities and public-private collaboration.

Abu Town, Yamaguchi Prefecture

Abu Town was formed in 1955 through the merger of three towns in the north of Yamaguchi Prefecture: Nago, Fukuga and Utago. According to the municipality of Abu Town, its population has declined to 3,049, with an aging rate of over 48% in 2023. The population is estimated to be 1,704 in 2040 (National Institute of Population and Social Security Research, 2018). According to the data from "The 7th Abu Town Comprehensive Plan", there were 205 farm households with an average age of 70.4 years, generating a town revenue of 253 million yen (4.2% of the total 6.054 billion yen) in 2015. More than half of the farmers face a lack of successors. More than 80 percent of production is sold to JA. The main crops are rice, fodder crops, vegetables, soybeans and barley.

Although not as economically strong as its neighboring Hagi City, Abu Town has some novel and pioneering features within the prefecture, such as the first direct sales shop (道の駅) in 1992, the first agricultural corporation in 1997, and the first farmer's inn in 2004. Unlike other municipalities in the prefecture that opted to merge during the mass merger of the Heisei period (the number of municipalities in Yamaguchi prefecture decreased from 56 to 19 and 7 municipalities around Abu Town merged into Hagi City), Abu Town decided to be an independent municipality with its own community development vision. Abu Town was also selected as one of the three model areas in Yamaguchi Prefecture in the 2004 Yamaguchi Green Tourism Promotion Plan (Tatsumi, 2016). A vacant house bank system was also established in 2007 and 250 migrants made use of 102 registered vacant houses until 2018. As of the end of March 2020, 151 town housing units (82 public housing units, 30 special public rental housing units, and 39 general housing units) had been registered under the system[100]. In addition, Abu Town currently provides a packaged of migration subsidies to U-turn and I-turn migrants[101].

In 2015, the Abu Town government published the "Abu Town Population Vision" based on the economic and demographic situation and the vision of the "1st Abu Town Comprehensive Strategy (第 1 次阿武町版総合戦略) 2015-2019". In order to create a

[100] The data refers to The Seventh Abu Town Comprehensive Plan, pp.116-20, http://townabu.sakura.ne.jp/wp/wp-content/uploads/2020/03/777b71e20ee965faea1c43f1670c4c24.pdf, last accessed on August 28,2023.

[101] Abu Town subsidies for immigrants, http://www.town.abu.lg.jp/guide/teizyushoureikin/, last accessed on August 28, 2023.

town that is chosen by its residents, the Abu Town government has started to solve problems related to “housing”, “jobs” and “connections” through eight projects, one of which is the “1/4 Works Project [102] ”. To further revitalize the town, the "2nd Comprehensive Strategy for Abu Town 2020-2024 (第 2 次阿武町版総合戦略：森海里と生きる町)" consisting of five principles and “The Seventh Abu Town Comprehensive Plan 2020-2029 (第 7 次阿武町総合計画:選ばれる町をつくり)”consisting of 35 principles and 126 policies were formulated in 2020. In the latter plan, Policy One “Implementation of Agricultural Practices in Response to the Times” addresses the “promotion of measures for the busy season through agricultural support” and the “development of accommodation bases using vacant houses”. In summary, Abu Town, as a small and declining area, has been actively involved in community revitalization and the promotion of migration.

Minabe Town, Wakayama Prefecture

Minabe Town was created in 2004 through the merger of the former Minabe Town and Minabekawa Village and is located in the middle of the west coast region of Wakayama prefecture. It is a nationally renowned plum (Ume) producing region, and “*Nanko Ume*” has become a national brand. The "Minabe-Tanabe Ume System" was designated as a Globally Important Agricultural Heritage Systems (GIAHS) in 2015, attracting attention not only to the plum itself but also to its traditional production methods. As of 2020, Minabe Town had 1,269 agricultural management entities (most of them are plum farmers), including 1,259 individual management entities and 10 cooperatives. Furthermore, the area of plum orchards in the town was 2,150 ha (2019), accounting for 14.1% of the total area of plum orchards in Japan. In addition, the production output of the town was 26,400 t (2019), accounting for 30% of the national total[103]. The advantage of Minabe Town in the domestic plum industry lies in its collaborative network of plum farmers, processors, retailers, distributors, restaurants, and actors in the tourism industry (Ishida, 2018). The plum is so important to the town that the town hall has even created a special unit called “Ume Division” dedicated to the plum-related administrative activities, separately from the existing Industry Division. The town also faces demographic challenges, with its population decreasing from 13,470 in 2010 to 11,818 in 2020 and an aging population rate of 33.3%. The population is estimated to be 5,715 in 2060 (Research National Institute of Population and Social Security, 2018).

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[102] Abu town’s official website of 1/4 works Project (Abu town government, n.d.), http://www.town.abu.lg.jp/10736/, accessed on June 5, 2023.

[103] Data refers to the Second Minabe Town Long-Term Comprehensive Plan, p.111. http://www.town.minabe.lg.jp/docs/2022062000017/files/chokei_2_kouki.pdf, last accessed on August 29, 2023.

The vision of Minabe Town is “a comfortable town where people shine amidst the blessings of the sea, mountains, and rivers”, which was first announced in the "Minabe Town Long-Term Comprehensive Plan" in 2007 and has been succeeded in the current “Second Minabe Town Long-Term Comprehensive Plan (2017-2027)” of 2017 (revised in 2022). The town further formulated the “Minabe Town Comprehensive Strategy for Town, People and Work Creation” in 2014 and “Second Minabe Town Comprehensive Strategy for the Creation of Town, People, and Work (2020-2024)” in 2020 (revised in 2022), based on the national “Town, People and Work Creation Act”. In particular, Policy Measure 2 of the Basic Goal5-1 (Agriculture Promotion) of the “Second Minabe Town Long-Term Comprehensive Plan” states that “in cooperation with Minabe High School and JA, the town will promote agriculture and support young people, women, and workers to take up farming”. In summary, Minabe Town focuses on the promotion of plum and related industries.

5.4.2 Key Actors

The Time for Agri ecosystem has six groups of actors: (1) coordinators, (2) registered farm management and related-business entities, (3) farm workers, (4) governmental bodies, (5) Public-Private Partnership (PPP) organizations, and (6) intermediaries.

Coordinators

The first type of actor in Time for Agri’s ecosystem is the coordinator, who is responsible for supporting its workers in their daily life and farm work once they are on-site, coordinating between farmers and workers, reporting and promoting the projects on the official website, and organizing events to build relationships, with local stakeholders. They receive 50-70% of the service fees paid by farmers to Time for Agri as remuneration. Currently, there are two official coordinators in Wazuka town and Abu town. The coordinator in Wazuka town is a female “I-turner” from Kobe City, and the first person to register with Time for Agri. The coordinator in Abu town is a male “U-turner” and a new entrant farmer producing watermelon and spinach since 2017. There are also four to five young candidates in the coordinator program established in 2021. They are “I-Turn” and “U-Turn” migrants from Nara, Hokkaido, Wakayama and Oita prefectures.

Registered farm management and related business entities

The second group of actors is the registered farm management and related business entities (hereafter, production entities). According to 192 recruitment notices released on the official website of Time for Agri, 99 production entities are registered, comprising 77 family farmers, 18 farming or processing companies, 2 associations in JA, a cooperative corporation and an NPO. As illustrated in Table 5-3 and Figure 5-3, the locations of

registered production entities are located in 22 cities and towns in eight prefectures, mainly in the western part of Japan: (1) Kyoto Prefecture (Wazuka Town and Minamiyamashiro Village), (2) Nara Prefecture (Tsukigase area, Yamazoe Village, Gojo City, and Oyodo Town), (3) Wakayama Prefecture (Hashimoto City, Arita City, Hirokawa Town/Yuasa Town, Gobo City, Hidakatagawa Town, Minabe Town, Tanabe City, and Kamitonda Town), (4) Tokushima Prefecture (Komatsushima City, Mima City and Awa City), (5) Ehime Prefecture (Yawatahama City), (6) Yamaguchi Prefecture (Abu Town), (7) Oita Prefecture (Kunisaki City) and (8) Hokkaido (Rusutsu Village and Nayoro City). As of August 2023, there are approximately 70 active production entities located in 18 cities and towns in eight prefectures. Most of them are located in rural areas that are disadvantaged in terms of demography, geographically, and economy, and suffer from a labor shortage, especially during the harvest season.

> *In the past, we have recruited part-time workers and asked friends for help. But finding people to help during the busy season is very difficult now. First of all, it is difficult to find people who can come for a few months straight. Also, since the work is weather-related, there are times when workers have to take the day off if it is raining. Time for Agri is a good solution to both labor shortages and the unpredictable working conditions caused by weather* (Tea farmer, late 70s, male).

Registered production entities pay workers an hourly wage of between 900 and 1,500 yen, of which 250 yen goes to Time for Agri. In most cases, accommodation for workers (free-rent in seven locations).

Table 5-3 Synopsis of the producing entities and accommodation as of 2023

No.	Initial Year	Item	Harvest season	Number of entities	Prefecture	Town/ City	Accommodation	
							Monthly Rent (Yen)	Type of Room
1	2012	Tea	May-Jul.; Oct.-Nov.	17	Kyoto	Wazuka town	20-40 thousand	Private/ shared room
2	2020	Orange	Jun.-Jul.; Nov.-Dec.	3	Wakayama	Hidakagawa town	free	Shared room
3	2020	Plum/Rice	May-Jul.	33	Wakayama	Minabe town	20-30 thousand	Private/ shared room
4	2020	Watermelon, Spinach	Jun.-Jul.; Jun.-Oct.	7	Yamaguchi	Abu town	15 thousand	Private room
5	2021	Tea	May-Ju., Sep.-Nov.	2	Kyoto	Minami Yamashiro village	30 thousand	Shared bedroom
6	2021	Tea	May-Jul., Sep.-Nov.	6	Nara	Nara city (Tsukigase area)	30 thousand	Shared bedroom

7	2021	Persimmon	Sep.-Dec.	1	Nara	Gojo City Nishiyoshino ward	15 thousand	Private room
8	2021	Potato/ Beat/ Sweet corn/ Pumpkin	Apr.-Oct.	1	Hokkaido	Nayoro city	free	Private room
9	2022	Scallion	Jul.-Oct.	1	Oita	Kunisaki city	30 thousand	Private room
10	2022	Orange	Jun.-Jul.; Nov.-Dec.	10	Ehime	Yawatahama city	free	Share house
11	2022	Orange	Jun.-Jul.; Nov.-Dec.	2	Wakayama	Arita city	free	Share house
12	2022	Orange	Jun.-Jul.; Nov.-Dec.	1	Wakayama	Hirokawa town	10~20 thousand	Private room
13	2022	Persimmon	All year	5	Wakayama	Hashimoto city	free	Share house
14	2022	Plum	May-Jul.	1	Wakayama	Tanabe city	free	Share house
15	2022	Organic Rice	1-2 year	1	Tokushima	Komatsushima city	30 thousand	Private room
16	2023	Tea	Apr.-Aug.	2	Nara	Yamazoe village	15 thousand	Private room
17	2023	Pear	Apr.-Jun.	2	Nara	Oyodo town	No room provided (with full subsidies)	
18	2023	Flower	July	2	Wakayama	Gobo city	10 thousand	Private room
19	2023	Grape	Apr.-Sep.	1	Tokushima	Awa city	20 thousand	Share house
20	2023	Broccoli	Aug.-Oct.	1	Hokkaido	Rusutsu village	30 thousand	Private room
21	2023	Plum	Jun.-Jul.	1	Wakayama	Kamitonda Town	free	Company housing
22	2023	Flower	Dec.-Jan.	1	Tokushima	Mima city	No room provided	

Note: Time for Agri has ended its partnership with the objects marked in gray.

Source: elaborated by the author based on the area pages on the Time for Agri's official website.

Figure 5-3 Locations of the registered farm management and related business entities in Time for Agri

Note: The red stars represent the approximate locations of the farm management and related business entities

Source: the author's elaboration on online English base maps by MILT Geospatial Information Authority of Japan (https://maps.gsi.go.jp/#6/35.661829/137.114611/&base=english&ls=english&disp=1&vs=c0g1j0h0k0l0u0t0z0r0s0m0f0&d=m, last accessed on 4 June 2022)

Farm workers

Farm workers are the third type of actors in Time for Agri. They can be divided into two main groups. The first, smaller group of workers consists of foreigners, including two young working holidaymakers from the UK and Australia, and two agricultural students from Indonesia, who are introduced or employed by Japanese talent agencies. The second

group comprises the majority of the farm workers, including young "freeter" or freelancers in their 20s to 40s living in urban areas. These young people usually network nationally on SNS and exchange information about job opportunities. In terms of motivations and reflections, most of the registered workers have gained first-hand and positive experience in agriculture and rural life:

> *This is a great opportunity for urban dwellers to get involved with rural communities.* (Female, late 40s)
>
> I received words of *gratitude from the farmers and was very touched by their feelings, which made me feel glad that I had worked so hard. I want to work with the same farmers again next year and to improve my level and work more efficiently.* (Female, early 30s)
>
> *The farmers are very friendly. I didn't know how to grow the food I eat every day, so I am here. I was introduced to a tea farm that I had never seen or visited before. Everything I did there was new and exciting. It was a great learning opportunity.* (Male, late 20s)

Some people simply joined the project for the pay and accommodation, while others made friends, interacted with each other, and shared their thoughts on the meaning of life through months of working and living together:

> *I am happy to be part of this project and my desire for self-recognition has been fully satisfied as I knew that the old tea farmers who needed help were counting on me. Also, thanks to my participation in this project, I have met many like-minded people.* (Male, late 20s)
>
> *I still keep in touch with friends I met in Wazuka town… Two people who participated in the second round of the (Time for Wazuka) project got married (in 2019). They started dating during the project and have now moved to Miyazu, Kyoto. (Female, early 30s)*

Governmental bodies

Governmental bodies including governmental departments also play an important role in the Time for Agri ecosystem in five areas of different prefectures: including Wazuka Town (Kyoto), Shimoichi Town (Nara), Minabe Town (Wakayama), Yawatahama City (Ehime), and Abu Town (Yamaguchi). Governmental departments involve Kyoto Prefecture Yamashiro Promotion Bureau (京都府山城振興局[104]), , the Hidaka Promotion Bureau, the Management Support Division of Department of Agriculture, Forestry and Fisheries in

[104] Kyoto Prefecture Yamashiro Promotion Bureau is a regional agency of Kyoto Prefecture that works with local organizations and citizens in the Yamashiro region, which encompasses 15 municipalities in the southern part of Kyoto Prefecture, to promote regional development from a broad perspective. https://www.pref.kyoto.jp/yamashiro/, last accessed on October 17, 2023.

Wakayama Prefecture, Community Development Promotion Division in Abu Town (21 世紀の暮らし方研究所), the Division of Regional Development Promotion in Shimoichi Town.

PPP organizations

PPP organizations include Wazuka Town Employment Promotion Council (和束町雇用促進協議会),d Nishiuwa Mandarin Oranges Support Team[105](西宇和みかん支援隊), HelloLife, the Tunagum [106](Kyoto Migration Project, 京都移住計画), the Wazuka Revitalization Center (和束町活性化センター), Furusatokaiki[107] (ふるさと回帰支援センター), Organic Eco Festa[108], the Kyoto Countryside Life and Furusato Center (京の田舎ぐらし・ふるさとセンター), Hidaka Gathering Committee for Local Agriculture,the Wakayama Industry Promotion Foundation, and Tokushima Organic Agriculture Support Center[109](とくしま有機農業サポートセンター).

Intermediaries

The Time for Agri ecosystem also includes intermediaries, such as JA local branches, social enterprises, agricultural talent agencies, universities and media. Social enterprises and agricultural talent agencies include Toyota Foundation, Tsunagiba Café, Tsunagu Inc. and NINAITE[110]. Major related media include, among others, Yomiuri Shimbun Wakayama edition, Kii Minpo, Gohan Business, Hidaka Shimpo, Agri.mynavi, Agrizm in TOKYO FM

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105 It consists of the governments of Ihata Town, Yawatahama City, Ehime Prefecture, Seiyo City and JA Nishiuwa and provides information and comprehensive support to those who want to become citrus farmers and part-time workers. http://n-mikan-shientai.jp/, last accessed on August 26, 2023.

106 A social enterprise established in Kyoto city in 2015. https://tunagum.com/, last accessed on August 26, 2023.

107 NPO Furusatokikai has been working with local governments throughout Japan to provide free immigration counseling to people who would like to living in rural areas and seeking a new way of life, as well as holding immigration seminars and fairs since the 2000s. https://www.furusatokaiki.net/, last accessed on August 26, 2023.

108The Organic Eco Festa is an event that to make organic food more familiar to the public, organized by an executive committee consisting of producers and consumers who share Teruo Ichiraku's philosophy, JA Higashi Tokushima, and “Miharashi no Oka Aisai Hiroba(みはらしの丘あいさい広場)”, https://organic-ecofesta.jp/, last accessed on August 26, 2023.

109It was established in 2009 and was originated from "Tokushima Organic Farming Growers Association" established aiming to foster 1,000 organic farmers and revitalize the local economy in 2007, https://www.komatushimayuuki.com/, last accessed on August 26, 2023.

110 NINAITE is a subsidiary of CHOMOLUNGMA in Hokkaido and is engaged in the business of referring skilled agricultural technical workers to local farmers. https://ninaite.ne.jp/, last accessed on August 26, 2023.

Broadcasting and NHK. Finally, Kyoto University of Advanced Science and Seian University of Art and Design are involved in the Time for Agri project.

5.5 Scaling Strategies

This section examines the scaling strategies Time for Agri implements, including "scaling out", "scaling up" and "scaling deep".

5.5.1 Scaling Out

Time for Agri implements "scaling out" strategies in terms of locations and number of registered workers and farmers/production entities, items produced, as well as and service forms offered such as introducing work opportunities, providing accommodation and transport, and initiating new projects.

Scaling-out by locations of business and number of participants/items

In addition to the initially registered farmers located in Wazuka Town (Kyoto), Abu Town (Yamaguchi), Hitagawa Town and Minabe Town (Wakayama), Time for Agri has expanded to newly registered farmers in diverse locations each year: 10 farmers in four areas in 2021, 21 farmers in seven areas in 2022 and 10 farmers in seven areas in 2023. As a result, Time for Agri has expanded its business to 22 cities/towns in eight prefectures across Japan involving about 150 production entities, of which about 70 production entities in 18 cities/towns are still in partnerships with Time for Agri as of August 2023. In addition to the geographical expansion, the number of commodities (items of production) has also increased, including tea, plum, cauliflower, flower, orange, persimmon, watermelon, spinach, potatoes, sweet corn, soybean, pumpkin, scallion, grape and sugar beet. So far, 69 production entities and 500 workers are registered and are active in the Time for Agri. Economically, Time for Agri introduced 64 workers in 78 cases to 39 production entities in 2021, generating 4.32 million yen, and 147 workers in 69 cases in 2022, generating 6.95 million yen.

There are two patterns of "scaling out" to Japanese workers: publicity at NPO-led events and posting jobs on Time for Agri's official SNS accounts. First, events organized by social enterprises and NPOs to promote immigration and job hunting in rural areas, such as those of the Kyoto Migration Project, HelloLife, Furusatokaiki, and Wazuka Town Employment Promotion Council, play a major role in Time for Agri's "scaling out" to the young people. For example, two "I-turn" migrants and the aforementioned female coordinator in Wazuka Town found out about Time for Agri through events organized by HelloLife. Second, the coordinators share information about work opportunities on Time for Agri's official website and Facebook account, supplemented by further explanations

on the YouTube channel or Stand.fm. Once somebody is registered as a farm worker, coordinators utilize virtual applications such as LINE and Zoom to approach them. In addition, by collaborating with other agricultural talent agencies, Time for Agri has also placed two holidaymakers and two international students with farmers.

The process of "scaling out" to increase the number of farmers/production entities follows a familiar pattern involving two steps. First, farmers and production entities are usually introduced and facilitated by the intermediaries, who are key regional actors, to Time for Agri. These intermediaries involve, for example, staff from local JA branches, agricultural recruitment agencies, acquaintances of the founder of Time for Agri, and registered farmers. For example, through a key person at JA Nishiuwa[111], eight workers were introduced to four tangerine farmers and a fruit-sorting cooperative in Yawatahama City, Ehime Prefecture in 2022[112]. In addition, a farm in Nayoro City, Hokkaido, was introduced by an agricultural talent agency[113], Tsunagu Inc., based in Niigata prefecture. Then, coordinators conducted several site visits to the introduced production entities as well as toured the provided working and accommodation facilities, which are published as introduction videos on its YouTube channel.

Scaling-out by forms

There are two new forms of "scaling out" the principle of Time for Agri in terms of supporting workers' livelihoods and fulfilling the needs of local communities. First, in terms to supporting workers' livelihoods, Time for Agri provides car rental services in two remote regions, as well as shared housing in renovated abandoned warehouses and houses in Wazuka Town and Minabe Town. In the case of Wazuka Town, the founder of Time for Agri received a grant of 7 million yen from the Toyota Foundation and a subsidy of 5.74 million yen from the municipality's "Wazuka Vacant House Restoration Project", to convert an abandoned steel-framed warehouse into an eight-room shared house called "Tsunagiba"[114] (meaning a place for connecting in Japanese). The share house has led to

[111] Ehime prefecture convened fairs for promoting immigration from urban to local in Tokyo and Osaka in 2017. For details of fairs and promoting immigration projects see Nagashiro (2023, pp. 57-60). On November 14, 2017, Nishiuwa Mandarin Oranges Support Team as one of the participants in the fairs, visited Wazuka Town and learned from the founder of Time for Wazuka as a successful case for promoting young immigrations. The key actor JA staff first met the founder of Time for Agri in this event.

[112] Data refers to the reflection of cases in Yawatahama City in Time for Agri official website. https://agrinajikan.jp/yawatahama/blog/65, last accessed on August 29, 2023.

[113] The representative director first contacted Time for Agri via its official website for a business collaboration of a new one-year farming program for holidaymakers. The official website of Tsunagu Inc., https://farmcaravan.com/, last accessed on August 29, 2023.

[114] For details of the share house, https://agrinajikan.jp/wazuka/blog/46, and Tsunagiba Café, https://tsunagiba-cafe.space/, last accessed on August 29, 2023.

deeper connections between workers, migrants and local residents, as well as unexpected innovations. For example, part of the facility of “Tsunagiba” was transformed into the "Tsunagiba Cafe" in collaboration with seven local restaurants in July 2019.

In addition to its usual business model of introducing workers to farmers, Time for Agri has also actively involved in local actor-led projects and launched various special programs. In the former case, Time for Agri was commissioned[115] to act as a recruitment consultant for the “Organic Rice Farmer Training Project”[116], which is implemented by the NPO Tokushima Organic Farming Support Center from April 2022 to April 2023. In the latter case, Time for Agri has been initiating civic projects in Minabe Town, such as training plum tree trimmers, processing “Zubai” (plum twig, used for a traditional decoration during the New Year festival in Japan) project, and Wakayama SOCAY (疎開, meaning evacuation from urban life and general working norms in Japanese society) project. Taking the “Minabe Clippers project” as an example, the founder of Time for Agri launched this project with four plum farmers in the Kiyokawa area in 2020, as professional workers to trim plum trees are needed to improve the quality and productivity of plum trees in the coming year. The plum farmers organize a 7–10-day camp during the winter season to train novice trainees, including lectures and practical training. As of 2022, the project has been implemented three times with a total of 18 participants, three of whom have received certificates of qualified plum twig clippers from the six cooperating farmers. This skill learning gives the qualified workers job opportunities in the plum industry and higher hourly wages in autumn and winter. It should be noted that this initiative is highlighted as a successful example of civic project in the Hidaka Promotion Bureau’s 2020 Report on the Results of Extension Activities (pp.45-6) and in the 2021 Extension Activities Regional Information (p.7) of the Management Support Division of Wakayama Prefecture Agriculture, Forestry and Fisheries Department. It has also been featured as a successful solution to the problems of aging and lack of successors in the region in multiple media, including Kii Minpo (June

[115] The partnership was triggered by a speech about the successful agriculture-supporting cases of Time for Agri in Wazuka Town and Minabe Town in Komatsushima City on December 25, 2021. The speech was for the “Connecting 1000 Agricultural Stakeholders! Project” run by Nakagawa Ad Ltd. The staff of NPO Tokushima Organic Farming Support Center and the leader of Co-op Shizenha have attended the event, who are the key people in collaboration with Time for Agri. Time for Agri was responsible for recruitment and follow-ups, while the NPO provided administrative support, such as housing and employment information. The partnership has ended due to the results of the one-year recruitment did not meet their expectations.

[116] It is designed as a one-year project employing young people who are interested in organic agriculture and to be new organic rice farmers. NPO Tokushima Organic Farming Support Center pays for a 200-thousand-yen salary per month including 50 thousand from Coop Shizenha, 50 thousand from the subsidy of MAFF's Agricultural Employment Support Program, and 100 thousand from the Center.

26, 2020, November 17, 2021), Gohan Business (vol. 24, 2022), Higaka Shimpo (July 11, 2020; February 4, 2023; July 5, 2023) NHK Wakayama (February 16, 2021), Agri.mynavi (January 5, 2022), and Agrizm (February 2, 2022).

5.5.2 Scaling Up

Time for Agri applies “scaling up” strategies, such as participating in public-private partnerships (PPPs), utilizing grants and subsidies from local governments, and presenting at government-led conferences and workshops. These strategies are mainly associated with the following five regions: (1) Wazuka Town (Kyoto prefecture), (2) Shimoichi Town (Nara prefecture), (3) Minabe Town (Wakayama prefecture), (4) Abu Town (Yamaguchi prefecture), and (5) Yawahata City (Ehime prefecture).

Public-Private Partnership

Time for Agri has two development phases: Time for Wazuka from 2014 to 2019 and Time for Agri from the end of 2019 till now. In the Time for Wazuka phase, the project founder worked closely with and received financial and administrative support from the Wazuka Town Employment Promotion Council. In addition to Time for Wazuka, the founder was also involved in running the Wazuka café and organizing the Wazuka Tea Festival (茶源郷まつり), while also participating in workshops led by the Wakayama Prefecture and Wazuka Town to promote best practices in the region. As a result of presentations at diverse workshops, the founder has built relationships with local government and JA officials and key persons, including Yawahata City in 2017, Shimoichi Town in 2015, and Abu Town in 2017. For example, in collaboration with officials from the Regional Development Promotion Department of Shimoichi Town, a short-term version of Time for Wazuka, called *Time for Shimoichi,* was organized for three terms between 2017 and 2018, hosting 15 young people, two of whom moved to Shimoichi Town. Furthermore, Time for Agri officially launched the "1/4works Project” with the Abu Town Hall in 2022. As a result, 13 young people worked for 5 farmers and one of them migrated to Abu Town. Finally, instead of plum farmers, an extension officer from the Agriculture and Fisheries Promotion Division of Wakayama Prefecture Hidaka Promotion Bureau has been in charge of giving lectures to the participants of the Minabe Clippers Project since 2022. In particular, the lectures include an introduction to plums, the purpose and methods of cultivation, processing and sorting of salted plums, and trimming methods.

Subsidies

In addition to the aforementioned subsidy of the Wazuka Vacant House Restoration Project, Time for Agri also received the Wakayama Regional Problem-Solving Start-up Support Grant (わかやま地域課題解決型起業支援補助金, which covers 3/4 of total project cost, up to 3 million yen*)* from the Wakayama Industry Promotion Foundation in 2020,

whereby Time for Agri renovated a vacant house into a dormitory fully equipped with Wi-Fi, bath, and kitchen facilities for farm workers in Minabe Town. In 2022, Time for Agri also received financial support from Minabe Town to promote the Minabe Clippers Project, including the purchase of trimming tools.

Presentations and communications

In addition to presentations at events organized by the Wazuka Town Employment Promotion Council in Kyoto prefecture, the founder of Time for Agri has been involved in diverse range of conferences and gatherings since 2019. For example, he gave speeches at the 35th Hidaka Gathering for Regional Agriculture in Wakayama prefecture in 2019 and a roundtable discussion and seminar on the theme of "Securing the Workforce" organized by the Wakayama Prefectural Office of the Kinki Agricultural Administration Bureau in 2020. In January 2023, he also had a meeting with five officials from the Wakayama Prefecture Agriculture, Forestry, and Fisheries Policy Bureau and exchanged views on the "Minabe Clippers Project" and other agricultural support projects.

5.5.3 Scaling Deep

The essence of the "scaling deep" strategies is to communicate the core concept of social innovation (SI) through storytelling and promotional activities. In this case, the core concept is "Ennou (援農)" which refers to support for farming, and "Sokai (疎開)", which refers to escape from urban life and general working norms. Interestingly, following the logic of "Sokai", the founder of Time for Agri dresses as casually as he does at home, wearing slippers and sometimes carrying his baby, regardless of the situation, such as a presentation at a government office or a field trip to the farms. Moreover, several episodes that happened in the shared house during the phase of Time for Wazuka were very touching for all stakeholders and illustrate its SI principle:

> *Many of these people (freeters) are very open-minded. In the second round (Time for Wazuka), there was an 18-year-old boy who was very introverted at first, and everyone was a bit awkward. But as everyone tried their best to approach him, he started to change, and in the end, he even bought oranges for everyone, which was very touching.* (The founder of Time for Agri, early 40s, male)
>
> *I believe that everyone is incredibly empowered, and it becomes easier to feel their value (through the project experience). This is because farmers thank them directly and workers can feel their values in their daily life with other participants. Some people show leadership, while others work in harmony. You can feel the energy of everyone working a little bit harder in a given space.* (The founder of Time for Agri, early 40s, male)

In particular, Time for Agri conveys its SI philosophy through the "scaling out" activities involving workers and production entities. Time for Agri emphasizes the use of SNS applications to build friendly relationships with registered workers, rather than the more professional method of communication via emails. Time for Agri conducts one-hour online interviews, including self-introductions, using Zoom, and then learns about the worker's experiences and requirements during these conversations.

In addition, Time for Agri uses several media outlets, including its official website, YouTube channels (172 subscribers and 84 videos), LINE, Facebook (629 followers), and Stand.fm (31 audios), to tell the stories and insights of farmers, workers and coordinators. Giving lectures at universities and being actively interviewed by traditional media are also examples of the implementation of “scaling deep” strategies. As a result of the media exposure mentioned in the previous subsection, in 2022, the founder was invited by Kyoto University of Advanced Science (6 times for 50 students) and Seian University of Art and Design as a special lecturer to present the experience of Time for Agri.

5.6 Discussion

Based on the findings of the previous two sections on Time for Agri ecosystem and its scaling strategies, this section presents answers to the four research questions raised at the beginning of this chapter. Conclusions on the constraints Time for Agri’s potential to address demographic problems and further transform the current agri-food system and rural communities will be presented at the end.

5.6.1 SI Ecosystem

As shown in Figure 5-4, the Time for Agri ecosystem comprises the economic and socio-political environments at the national and local levels and five main groups of actors. First, the economic and socio-political environments at the national level are shaped by the severe demographic challenges and consequences in rural Japan, alongside the approaches currently adopted by scholars, governments, markets, and civic actors, such as technical innovation, new labor, and remobilization of the existing workforce. Japanese society is also showing a change in attitude toward freeters/freelancers (Umeda, 2022), which is linked to the increasingly crucial role played by young freeters/freelancers in agriculture and rural revitalization in remote communities (Konno, 2019; Ueno and Kobayashi, 2020; Magaki, 2019; Iwasaki, 2020). Likewise, the Time for Agri ecosystem is influenced by the economic and socio-political conditions in its embedded towns. This includes the favorable socio-political conditions for migration, the development of new activities and collaborations between the public and private sectors in Wazuka Town, the active revitalization of the community and the encouragement of immigration in Abu Town, and the promotion of plum and related industries in Minabe Town.

Second, the six groups of actors in the Time for Agri ecosystem include (1) coordinators, (2) registered production entities, (3) farm workers, (4) governmental bodies, (5) PPP organizations and (6) intermediaries. In particular, coordinators consist of I/U-turn migrants who were former farm workers or local new-entrant farmers. Most of the registered production entities are small-scale farm households with a family of about four people, who face an aging population and labor shortages. There are a small number of foreigners, and young Japanese in their 20s to 40s make up the majority of farm workers. The governmental bodies and PPP organizations in the ecosystem include local authorities, public institutions, project promotion/regional collaboration council and NGOs/NPOs in five prefectures: Kyoto, Wakayama, Yamaguchi, Nara and Ehime. Intermediaries are actors who collaborate with Time for Agri to approach farm workers and production entities. They consist of very diverse actors, such as local JA, social enterprises, talent agencies, universities and media. In summary, Time for Agri is a complex and organic ecosystem in terms of the complexity of the origins and composition of all six groups of actors and their diverse locations.

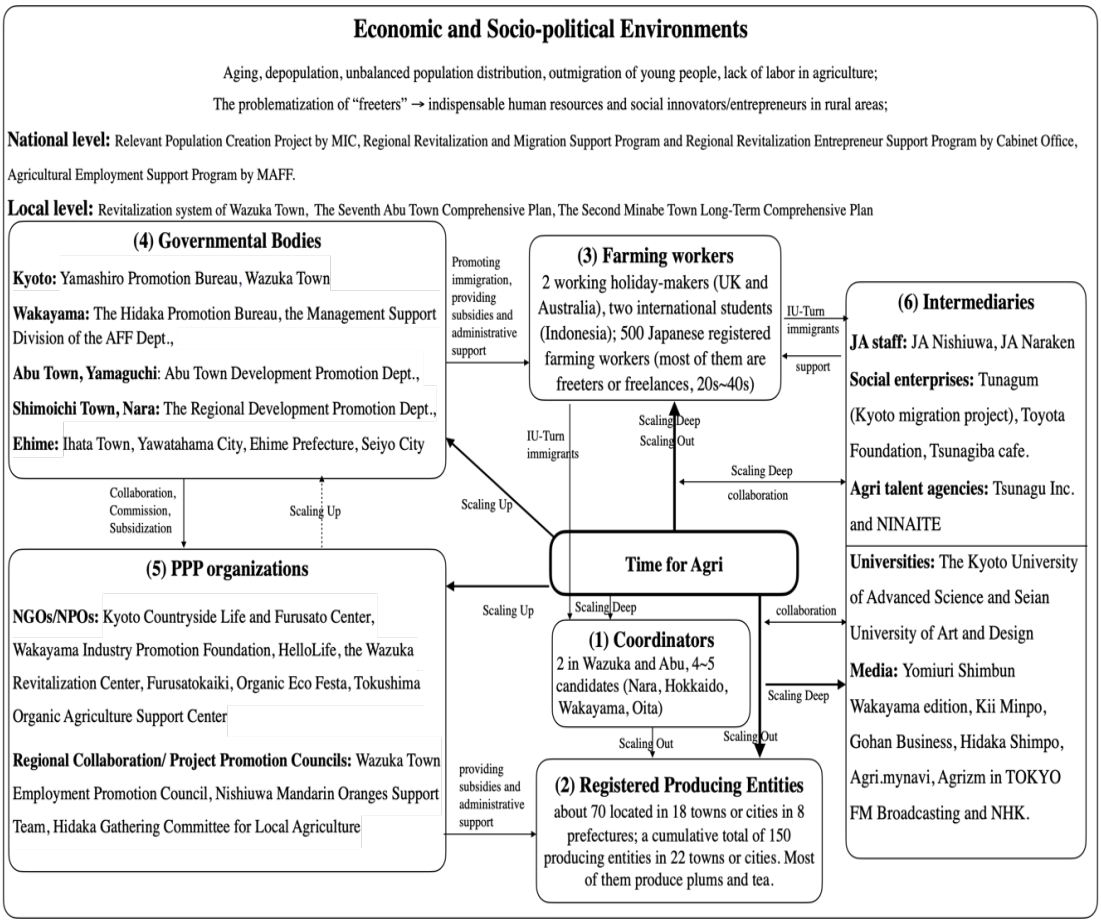

Figure 5-4 Time for Agri Ecosystem

Source : Elaborated by the author.

5.6.2 Scaling Strategies

This subsection aims to answer two research questions about the scaling strategies implemented by Time for Agri and "how and which actors implement the scaling strategies successfully and why".

First, the "scaling out" strategies are implemented by Time for Agri in terms of locations (items of production) and number of registered workers and farmers/production entities, as well as service forms such as introducing work opportunities, providing accommodation and transport, and initiating new projects. Second, the "scaling up" strategies implemented in five communities – Wazuka Town (Kyoto prefecture), Shimoichi Town (Nara prefecture), Minabe Town (Wakayama prefecture), Abu Town (Yamaguchi prefecture), and Yawahata City (Ehime prefecture) – include involvement in public-private partnerships (PPPs), access to subsidies, and presentations and communications at government-led conferences and workshops. Finally, Time for Agri employs storytelling and promotional activities to communicate its core concepts of "Ennou" (support for farming) and "Sokai" (escape from urban life and general working norms) through daily business activities, innovative projects and multiple media outlets.

Regarding "scaling out", Time for Agri's founder and other coordinators have become actors in implementing the strategies by disseminating information and ideas in a timely, transparent, and efficient manner through SNSs, and actively seeking new forms of practices. It is noteworthy that the "scaling out" practices to approach farm workers and production entities are made possible by intermediaries such as local JA staff, social enterprises, agricultural talent agencies and NPOs. As a result of the proactive implementation of the "scaling out" strategies, the number of actors involved has increased over the past three years, as has their income. In addition, media coverage has brought new connections to Time for Agri with universities and the general public, who used to be outside of Time for Agri ecosystem. Furthermore, the small size of the organizational body, the simplicity of its decision-making mechanisms, and the organic way in which it has developed have allowed Time for Agri to "scale out" effectively and efficiently. However, there are problems with this mode of implementation. The main one is that it relies too much on the founder's personal charisma and proactive attitude, rather than fully institutionalizing Time for Agri as an organization. As a result, Time for Agri has not been able to work well with larger institutionalized organizations, as exemplified by the termination of its contract with NPO Tokushima Organic Farming Support Center.

In terms of "scaling up", Time for Agri's founder is the one who actively participates in PPPs, applies for subsidies and delivers opinions and speeches in front of government officers. However, the leadership of the founder is not the sole reason for the successful

implementation of the "scaling up" strategies. Among the PPP organizations, the Wazuka Town Employment Promotion Council played a major role in creating opportunities for the founder to accumulate experiences and reputations in rural revitalization as well as in building connections with PPP organizations and government officers in other prefectures during the phase of Time for Wazuka (2014-2019). These reputations, achievements and connections generate further possibilities for Time for Agri to "scale up". In addition, Time for Agri's "scaling out" activities, such as the Minabe Clippers Project and media exposure, are also a force for successful "scaling up". However, the extent to which Time for Agri is able to implement the "scaling up" strategies is entirely determined by the governmental bodies, PPP organizations and government officers. I Thus, Time for Agri has neither the intention nor the power at this stage to transform the current political regime through the implementation of the "scaling up" strategies.

Finally, in terms of "scaling deep", it is Time for Agri, coordinators, registered production entities, and farm workers who carry out the implementation through storytelling via multiple media, including video, audio and essays. Of course, the involvement of actors other than the coordinators in the "scaling deep" strategies is at the request of the founder of Time for Agri. Additionally, intermediaries such as the media, social enterprises and NPOs are also crucial actors in facilitating and creating space for Time for Agri to communicate the ideas of "Ennou" and "Sokai" to a wide audience interested in agriculture and rural life. In addition to the messages disseminated through the projects, the founder embodies the most transformative power through his lifestyle, performing the concept of "Sokai" that is meant to be not bound by customary practices: for example, the choice of casual outfits under any circumstances, communication methods, and the habit of baby-caring even during work and presentations

5.7 Conclusion

In conclusion, the successful implementation of three scaling strategies in the Time for Agri ecosystem can be attributed to: (1) the current preferable economic and socio-political environments at national and local levels; (2) resonance between the needs of farm workers and production entities and the concepts of "Ennou" and "Sokai"; (3) the leadership and proactive practices of the founder of Time for Agri; and (4) the help of intermediaries and some local administrative actors. Intermediaries, including local JA staff, media and NPOs, as well as some local administrative actors, justify the significance of Time for Agri by highlighting its tangible results such as the number and age of participants, thus increasing its bargaining power vis-a-vis business partners and administrative actors. However, problems such as over-reliance on the founder's charisma and proactiveness and the asymmetric power relations between administrative

actors and civic actors, would constrain the potential of Time for Agri to implement the “scaling out” and “scaling up” strategies.

Time for Agri presents as a niche alternative to the current government-led approaches to severe demographic problems (i.e., replacement with innovation, introduction of new labor, and mobilization of existing labor force into rural areas and agriculture). In particular, it has created an inclusive, effective and highly bonding ecosystem for diverse actors in multiple locations, without side effects that ignore the capabilities, opportunities and levels of well-being of rural communities or undermine social justice and equality. Notably, Time for Agri has not only brought young labor (freeters/freelancers) and vitality to local communities but has also created a space for people who are tired of urban life to “Sokai” through “Ennou”. This is because it is a “scaling deep” initiative, intertwining “scaling out” and “scaling up” practices.

Given Time for Agri's impact on rural revitalization in several remote communities, the author believes that the successes and failures in the process of implementing the scaling strategies of such "successful" and effective bottom-up SI practices can offer new insights for sustainable rural development. More importantly, the author argues that the success of SI should not simply be highlighted by the number of young laborers (freeters/freelancers) and new migrants generated by SI, but by their transformative aspiration and power of change to the current economic and socio-political system behind the communication of the core concepts in the practices. Finally, the author calls for more empirical research on these "successful" bottom-up SIs, which are a transformative force in civil society for a brighter and sustainable future for rural communities under the threat of demographic challenges.

Chapter 6: Social Innovation for Networking Female Farmers: A Case Study of the Shiga 100 Agri-Girls Project

6.1 Introduction

Since the Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF) released the "Report of the Advisory Group on Medium- and long-term Vision for Rural Women" in 1992, the administrative situation regarding female farmers and rural women has greatly improved. Recently, there has been a growing trend for rural women to establish and manage innovative agriculture-related enterprises. In recent years, the increasing visibility and importance of rural women in agricultural growth have been acknowledged by the public (Aoyama, 2016; Ouchi, 2017). As stated in the latest Basic Plan for Food, Agriculture, and Rural Areas (MAFF, 2020c), there is a need to (1) alter the perspectives of individuals residing in rural areas and deepen their understanding of the beneficial contributions of women in agriculture, and (2) incorporate women's opinions and perspectives into regional agricultural policies (p.9). In addition, MAFF asserts that sustainable transformation of agriculture and rural areas can only be accomplished by creating appropriate and comfortable agricultural and living environments for women and fostering their achievements (2020).

The number of young female farmers is declining and the rate of women entering farming is lower than that of men. The current socio-political atmosphere in Japan encourages rural women to promote their "vitality (活躍)" and align with the notion of "shining women (輝く女性)". It seems increasingly likely that social innovation (SI) driven by rural women will emerge and succeed in tackling the concerns of demographic and economic decline. In particular, alongside top-down government approaches, there is a growing trend for SIs to embrace grassroots approaches, which are gaining public attention and being advocated as contributing to the revitalization and sustainable development of local communities. However, the power dynamics present in interactions in supposedly "successful" situations are often overlooked. In other words, these "successful" initiatives do not occur in isolation, but as a result of the interaction between SI and the specific political, economic, and social situations and persons it encompasses. Hence, the author's purpose is to examine two main aspects: (1) the SI ecosystem, which encompasses the socio-political and economic environments and stakeholders, and (2) the implementation of scaling strategies (Riddell and Moore, 2015), using the Shiga 100 Agri-Girls Project (しが農業女子 100 人プロジェクト: S100AP) as a prominent example of a small-scale female farmers' group, from an SI ecosystem perspective (Terstriep, et al., 2015). In addition, the author seeks to identify factors that limit or fuel the capability of

the SI initiative, S100AP, to transform society This will be done by examining the power dynamics experienced by the chosen SI case and the challenges encountered in implementing its scaling strategies. This case study specifically focuses on two objectives, which include the following five sub-research questions.

Objective 1: To understand the S100AP's ecosystem

1. What are the socio-political and economic environments in which S100AP is embedded?
2. How is the ecosystem being formed and developed? Who are the main actors in these environments?

Objective 2: To examine the scaling strategies for systemic impacts employed by S100AP

1. What scaling strategies are employed by the S100AP?
2. Which actors are implementing the scaling strategies? How are they putting the strategies into practice? What actors are celebrating the "success" of the SI?
3. Why have the scaling strategies been successfully implemented?

The remainder of this chapter is organized as follows. Section 2 presents a literature analysis on female farmers and rural women in Japan and provides a theoretical foundation for the modifications in relevant policies and women's entrepreneurship. Section 3 outlines the location of the case study and the methodologies employed, including specific information about the female farmer members of the S100AP. Section 4 and Section 5 describe the main findings of the case study by using the SI ecosystem perspective and scaling strategy framework. Section 6 analyzes the data and emphasizes the role of core members, socio-political environments, and resource owners as both drivers and constrainers in achieving successful SI. The concluding section addresses the key research questions in this section and presents potential avenues for further study.

6.2 Policies on Rural Women

This section provides a comprehensive summary of the development of agricultural and rural policies regarding rural women in Japan from 1948 to 2023. The study relies primarily on a thorough evaluation of relevant literature, complemented by the data shown in Table 6-1.

Ouchi (2017) categorizes the development of agricultural and rural policies regarding rural women in Japan into three distinct phases at the national level. The first phase, known as the "livelihood-oriented period," was overseen by MAFF from 1948 to 1989. During this period, social expectations were established that women had responsibility in meeting basic family needs, such as food, clothes, and housing. Therefore, strategies for rural women were centered on improving living conditions and supporting

women in building their livelihood skills. Certain characteristics were observed among female farmers. They played a crucial role in filling the shortage of male agricultural laborers who were engaged in other jobs. As a result, women became a significant proportion of the agricultural population. It is important to note, however, that their social status remained relatively low due to their gender. The level of social recognition given to women farmers was extremely inadequate (Ouch, 2017).

The period from 1990 to 2014 was referred to as the "Human Rights Principles Period". The release of the Report of the Advisory Group on Medium- and Long-term Vision for Rural Women (1992) marked a shift in policy prioritizing the enhancement of women's status and the visibility of female farmers. As stated by Ouchi (2017), the main governance structure was a top-down mechanism from MAFF to Prefectures, Extension Centers for Livelihood Improvement Seminar (普及センター生活改善講座), Livelihood Improvement Implementation Groups (生活改善実行グループ), and rural women. The three primary objectives of governance were (1) to foster family management agreements, (2) to strengthen women's social engagement and decision-making, and (3) to support women in their business activities. At the same time, a number of innovations were spearheaded by a diverse group of rural women in civil society. These include community-based initiatives stemming from Livelihood Improvement Projects and JA Women's Clubs, as well as social network-driven initiatives formed through individual social connections, all aimed at rural revitalization (Sawano, 2012; Oishi, 2016). Unfortunately, the implementation of human rights concepts during the second stage was insufficient and ineffective, and the status of women did not actually improve (Ouchi, 2017).

The third phase, known as the "Human Resource Development Period", began in 2015 and is still ongoing. The impetus of this strategy was the significant decline in the population of young female farmers and the decrease in the number of young women (under 44 years old) seeking to enter the farming profession. The current agricultural strategy of MAFF aims to increase the social presence of female farmers and encourage more women to choose farming as a career. This is a departure from the previous approaches that focused on education and awareness-building (Ouchi, 2017, pp. 116-7). The Agri-Girls Project (農業女子 PJ[117]), launched by MAFF in 2013, is a unique and

[117] The "Agri-Girls Project" aims to leverage the expertise of female farmers in order to develop innovative products, services, and knowledge. By merging the wisdom gained from their daily lives, work, and connection with nature with the technologies, know-how, and ideas of different companies, the project seeks to effectively share this valuable knowledge with society at large. The objective of this project is to enhance the representation of young women pursuing careers in agriculture and to raise awareness about the contributions of women farmers in society. This will be achieved by sharing information about women involved in agriculture from diverse perspectives, in collaboration with different companies and

innovative experiment. Currently, the initiative involves about 500 female farmers and 55 groups in several prefectures.

Table 6-1 Changes in Policies and PPP of Female Farmers (1992-2023)

Year	Cabinet Office	MAFF(Agriculture)	MAFF (Women)	Civil Society
1992		The new direction of food, agriculture, and rural policy	Medium- to long-term vision council report on Rural Women	
1994	Gender Equality Promotion Headquarters			countryside heroines (田舎のヒロインズ)
1995		promotion of family management agreements		National Women Farmers Conference
1999	The Basic Act for Gender-Equal Society (No. 78 of 1999)	The Basic Law on Food, Agriculture, and Rural Areas (No. 106 of 1999)		
2000	Basic Plan for a Gender Equal Society	Basic Plan on Food, Agriculture, and Rural Areas (BPFARA)		
2005	The 2nd Basic Plan for a Gender-Equal Society	BPFARA, changed to extension officers (普及指導員)	Management Bureau Extension and Women Dept. (普及・女性課)	Yamato Rinrin Agri-net (やまと凛々アグリネット)
2010	The 3rd Basic Plan for a Gender-Equal Society	BPFARA, Law of Creating Businesses by Utilizing Regional Resources and Regional Agriculture, Forestry and Fishery Products(6 次産業化法, Law No. 67 of 2010)		Rural Gender Equality Promotion Council (農山漁村男女共同参画推進協議会, Secretariat: JA Chukai, National Chamber of Agriculture)
2012			Promotion of Women's Participation for the Revitalization of Agriculture, Forestry and Fisheries and Rural Areas (Notification of Vice-Minister)	Outstanding Award for Gender Equality in Rural Villages and Rural Women/Senior Activity Awards
2013			Agri-girls PJ (農業女性プロジェクト) start	
2014	Establishment of Headquarters for Building a Society Where All Women Shine		Next-Generation Female Agriculture Leader Training School start	Women's future agriculture creation study group(女性未来農業創造研究会)

organizations within and beyond the agricultural sector. (For details, c.f. https://nougyoujoshi.maff.go.jp/overview/, accessed on July 15, 2023.)

2015	Act on the Promotion of Women's Active Engagement in Professional Life（Act No. 64 of 2015), The 4th Basic Plan for a Gender-Equal Society	BPFARA	Management Bureau Farming and Women's Dept. Women's Activity Promotion Office, WAP100 under Female farmer Training Project(輝く女性農業経営者育成事業)	Women's Active Participation in Agricultural Management (WAP100) planned and operated by Japan Agricultural Corporations Association
2016	SDGs Promotion Headquarters (Goal5)		Female farmer Training Project FY2016 budget amount 110 million yen	WAP100: 32 entities
2017				Changed to Awards for active participation of women in rural areas、WAP100: 28 entities
2018			Promote Agriculture for the Future Changed by Women Project(女性が変える未来の農業推進事業)	WAP100: 42 entities； Promote Agriculture for the Future Changed by Women Project PPP with My Farm Co., Ltd.
2020	The 5th Basic Plan for a Gender-Equal Society	BPFARA		
2022				Childcare and farm work support activities for female farmers PPP with Pasona Nouentai
2021		Emergency measures to secure new farmers(新規就農者確保緊急対策)	Enactment of Women's Farming Environment Improvement Support Project (女性の就農環境改善支援事業)	Women's Farming Environment Improvement Support Project PPP with My Farm Co., Ltd.
2023	Priority Policy for Women's Participation and Gender Equality			

Source: summarized and elaborated by author based on MAFF and the work of Aoyama (2016), Sato (2016), and Ouchi (2017)

Nevertheless, scholars have also expressed criticism of the policies and laws that focus on the achievements and positive aspects of rural women. Increasing the visibility of female farmers' activities in the "Agri-Girls Project" leads to the concealment of underlying gender issues (Fujii, 2019). Nakamichi (2019) also expressed disapproval of the Law on the Promotion of Women's Active Engagement in Professional Life (2015) because it requires women to take on five different responsibilities: (1) agricultural work, (2) entrepreneurial activities, (3) domestic work, (4) childcare, and (5) long-term family

care. The empowerment of rural women has been constrained and hindered by deeply ingrained gender norms, which are manifested in discriminatory behavior, legalized gender segregation in industry and public spaces, and traditional beliefs about the distribution of labor and wealth by gender within households. Despite significant efforts and valuable contributions by female farmers, women are still considered as secondary and peripheral workers in the agricultural sector (Kashio, 2019). The study conducted in the Netherlands similarly shows the inequitable difficulties experienced by women living in rural areas (Bock, 2004a, b). Although women have played a significant role in the transition from single-purpose to multi-purpose agriculture-related businesses, current rural development strategies and subsidy programs are mostly focused on supporting male farmers. Furthermore, the limited access to finance available to women compared to male farmers and the lack of connections to professional support networks leave rural women ill-equipped to effectively address challenges (Bock, 2004a, b). The aforementioned challenges and hardships are caused by the existing governance system and cannot be solved via the achievements of individuals or networks. Therefore, using the case study approach merely from a micro(organizational)-level perspective in examining rural women's studies in Japan is insufficient to understand the extent to which rural women's networks can facilitate systemic change of the regime. The SI ecosystem approach (Terstriep, et al., 2015) and the scaling strategy framework (Riddell and Moore, 2015) provide the capability to analyze the context in which successful cases are situated and the power dynamics behind the ostensible success.

Furthermore, since 2000, the transformation of the extension system and the expansion of prefectural governing authority have led to more diverse approaches to policymaking and agricultural policy implementation related to female farmers in each prefecture (Ouchi, 2017). Thus, while policies formulated by central government bodies such as the Cabinet Office and MAFF impact the socio-political landscape of the SI ecosystem, the various governance structures and historical backgrounds of each prefecture also affect the ecosystem in distinct ways. Therefore, it is essential to consider the specific economic, social, and political environments of each prefecture when analyzing each case study.

6.3 Methodology

6.3.1 Overview of the Case Study Area

Shiga Prefecture is located in the Kansai region of Japan and has 13 cities and 6 towns. It has Japan's largest freshwater lake, Lake Biwa (see to Figure 6-1). According to Figure 6-2, the main crop in Shiga Prefecture is rice, which accounts for 58% of the total agricultural production (about 37.8 billion yen) and 92% of the total cultivated area (over

47,000 hectares) (Shiga Prefecture Department of Agriculture and Fisheries, 2022). According to the "Shiga Prefectural Statistics (1948-2020)", the number of farm households in Shiga Prefecture in 2020 is 21,971, a decrease of over 50% compared to the number of farm households[118] in 2000.

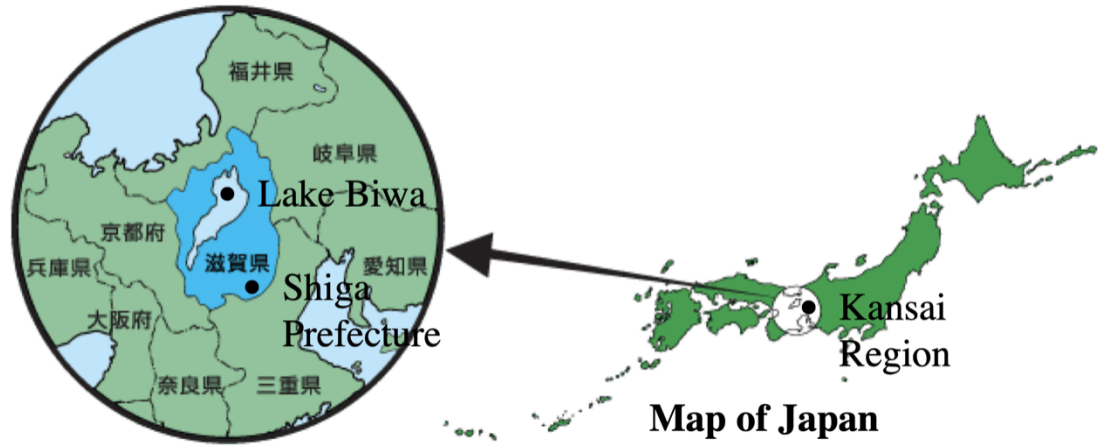

Figure 6-1 Map of Shiga prefecture

Source: Shiga Prefectural government

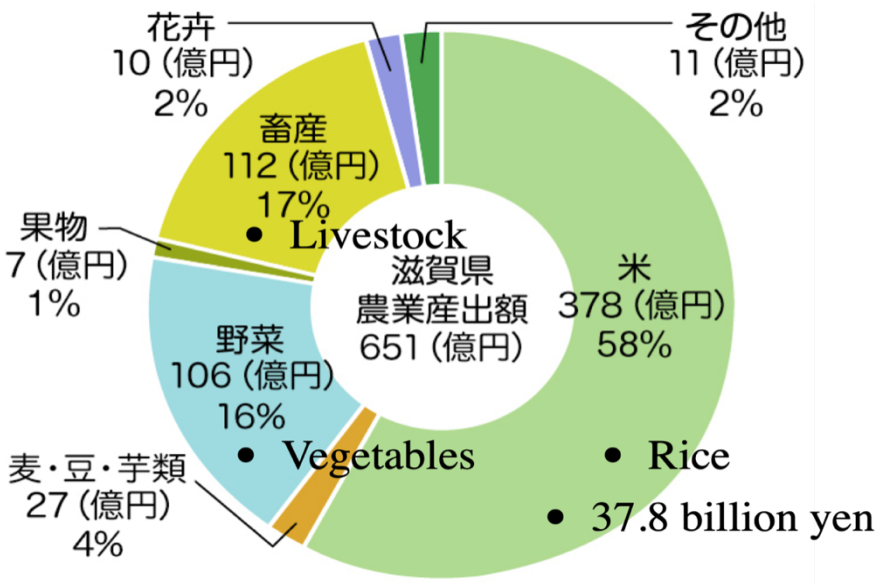

Figure 6-2 Outline of the agricultural production value in Shiga prefecture in 2021

Source: https://www.jas.or.jp/agrifood/agri/, last accessed on Feb. 14, 2023.

[118] Farm households are defined as those with arable land of 10a or more or with an annual income of 150,000 yen or more from the sale of agricultural products.

6.3.2 Data Collection

Three qualitative approaches to data collection were used in this case study: interviews, participant observation, and document and media analysis. Initially, the author conducted a total of seven interviews (see Table 6-2). In mid-August 2022, site visits were conducted to a group of five S100AP directors and one auditor. During these visits, the author engaged in activities such as weeding and picking blueberries in the fields of two farmer members to gain practical experience for the purpose of participatory observation (see Figure 6-4 up). Unstructured and semi-structured interviews were conducted with each of these six key members of S100AP. Furthermore, on December 6, 2022, an interview was conducted with a Shiga Prefectural government official who had connections with S100AP. The duration of interviews ranged from 1 hour to 1 hour and 45 minutes. All interviews were meticulously documented, and audio devices were used to record the interviews with the explicit consent of the interviewees. Data analysis followed the transcription of the audio recordings after the interviews.

Figure 6-3 Locations of the interviewees in Shiga Prefecture

Source: Elaborated by the Author based on the map owned by the prefectural government

Table 6-2 Outline of interviewees in Case study of S100AP

No.	Name	Age	Location (city)	Position	Years of farming	Main Farming items	Acreage
1	TH	43	Higashiōmi	director	0.75	vegetables, blue berry (employee)	None
2	MM	39	Kusatsu	director	15	rice, vegetables	5ha,4a
3	HS	38	Omihachiman City	representative director	8	rice, lotus root	3ha
4	TK	53	Yasu	vice-representative director	15	blue berry	30a
5	IM	41	Higashiōmi	vice-representative director	12	rice	5ha
6	KM	58	Omihachiman City	auditor	24	vegetables	84a

Source: Summarized by the author.

Figure 6-4 Participant observation of S100AP

Source: Photo owned by the author (up two) and S100AP's official Instagram account (below two).

In addition, the author participated in activities arranged by S100AP on April 11 (see Figure 6-4 below) and August 10, 2022, and at a nearby farmers' market organized by social entrepreneurs associated with S100AP on August 13, 2022. During the visit, the author collaborated with workers at the stalls of two key members of S100AP to sell blueberries. The author also took part in an "Agri-café" event hosted by Shiga Prefecture, where an S100AP member served as one of the speakers on November 8. Furthermore, the author visited the farm of this member in Moriyama City on November 16, 2022.

Third, this research analyzed data and grey literature obtained from many sources, including S100AP's official website, social media platforms such as Facebook and Instagram, and newspapers. Table 6-3 provides a summary of twenty-seven essays that appeared on the S100AP's website. These essays include interviews with five official members of S100AP and provide supplemental data for the text analysis. The information was verified as of May 1, 2023. Grey literature includes reports from government agencies, publications from corporate groups and civil society organizations, and media reports.

Table 6-3 Outline of Female farmer members in S100AP

Location	Type of farming	Acreage of farmland	Items	Started year of farming	Sales channels
Omihachiman City	Independent	1.5ha	Rice and vegetables	2014	own website, wholesale and retail stores
Higashiomi City	Family successor	50a	vegetables	2010	JA direct sales shop, restaurants
Ryuo Town	Family successor	rice 30ha	rice, 500 head of cattle, 40 head of dairy cattle, 3 head of goats	2004	own shop, highway direct sales shop(道の駅), hotel, restaurants
Moriyama City	Independent	70a	vegetables	2015	highway direct sales shop, hotel, restaurants, direct sales
Higashiomi City	Family successor	two greenhouses	strawberry	2018	direct sales shop, strawberry picking(March～mid-May)
Omihachiman City	Hired in Agri-companies	230ha (vegetables 50a)	rice, wheat, soybean, vegetables	2017	Restaurants, wholesale, direct sales shop
Higashiomi City	Independent	612 ㎡ (3 greenhouses)	lettuce, potherb mustard, herb, edible flowers	2019	wholesale, direct sales shop, individuals

Takashima City	Independent	45a	About 200 items of root and fruit vegetables	2015	restaurants, direct sales shop, individuals
Yasu City	Family successor	30a	blueberry	2007	wholesale, direct sales shop, restaurants
Omihachiman City	Family successor	84a	vegetables40-50 items	1998	direct sales shop, wholesale, restaurants
Moriyama City	Independent	20a	edible flowers	2017	hotel, patisserie, restaurants, individuals
Higashiomi City	Family successor	5ha	rice	2010	contract farming, individuals
Otsu City	Hired in Agri-companies	４a (Shiga), ５ha (Fukui)	rice	2007	contract farming, individuals
Nagahama City	Family successor	23ha	rice, wheat, soybean, strawberries, vegetables	1989	contract farming, individuals
Moriyama City	Family successor	約 1ha	rice, vegetables seedlings, few vegetables		
Otsu City	Hired in agri-companies		herb, rice, soybean, barley	2016	direct sales
Nagahama City	Family successor	400a	rice 290a, vegetables 110a(carrot70a,Bamboo shoot 20a, others 30a)	2019	direct sales, direct sales shop, local supermarket, school lunch, EC, mail-order, restaurants, sake brewery, rice store
Moriyama City	Family successor	40a	pear, rice, wheat, soybean, fig		direct sales shop, highway direct sales shop, JA
Koga City	Family successor	20a	herb, flower, fruit (blueberry, plum, quince, mulberry)	2019	JA direct sales shop, own website
Kusatsu City	Family successor	9ha	vegetables, melon	1996	Co-op, supermarket
Konan City	Independent	20a	vegetables	2010	own website, retail store
Aisho Tow	Family successor	42ha	rice, vegetables, fruit	2003	own direct sales shop, wholesale market, rice shop, pickle shop

Takashima City	Independent	55a	vegetables	2013	restaurants
Takashima City	Independent	3.4ha	vegetables, shiitake mushroom	2014	Highway direct sales shop, Hometown Tax programme
Higashiomi City	Family successor	4.3ha	rice, vegetables	2012	wholesale market, JA direct sales shop
Nagahama City	Hired in Agri-companies	31ha	rice, wheat, vegetables, flower seedling, vegetable seedling	2013	
Ryuo Town	Hired in Agri-companies	45ha＋orchard 1.2ha	rice, wheat, soybean, vegetables, fruit	2016	

Note: the last seven members marked in grey have dropped out or become supporting members.

Source: the author summarized based on the reports of the S100AP official website.

6.4 SI Ecosystem

6.4.1 Socio-political Environments in Shiga Prefecture

Similar to the challenges encountered by agriculture throughout the country, Shiga Prefecture has seen a significant decrease in the population of female farmers, as the number of young women (aged below 44) entering farming is declining. According to the data from Shiga Prefecture, as of February 2020, there were 1,374 female farmers engaged in agriculture for more than 200 days a year. Of these, only 32 have qualified as certified farmers (認定農業者) as of March 2022. Furthermore, only 52 (15%) of the 336 agricultural commissioners (農業委員) in Shiga Prefecture in 2022 are women. These women possess extensive farming expertise and have earned the trust and respect of the communities. In April 2023, Shiga Prefecture announced its "Basic Policy on the Promotion of the Strengthening of Agricultural Management Base (農業経営基盤の強化の促進に関する基本方針)" which states that it is important to promote the participation of women in farm management in order to secure sufficient labor force and enhance agricultural capacity (p.2).

From 2017 to 2021, 513 people started working in agriculture as new entrants. They have two noticeable characteristics. First, the number of female farmers is lower than that of male farmers. According to an interview with a prominent government official, the average number of around 100, of which only 20% are female. In 2021, the number of new-entry farmers was 108, of which only 24 were women. More precisely, out of the 77 employed by agricultural enterprises, 17 were women, and of the 31 self-employed farmers, seven were women. The retention rate of new female farmers is also low. According to the statistics in 2022, the average retention rate during the first five

years is 83% for male farmers and 69% for female farmers. Second, with regard to age, the majority of these new farmers are typically in their 20s. One reason for this is that the Training Program (養成科) and the Farming program (就農科) at the Shiga Prefectural Agricultural College (滋賀県立農業大学校) generate 45 prospective farmers annually in the prefecture. According to statistics from prefectural officials, 52% of the 30 graduates from the Training Program successfully become independent farmers, while 32% are employed by JA or other agriculture-related firms and the remaining graduates are employed by agri-businesses in 2021. Whereas the likelihood of producing independent farmers after graduation from the Farming Program is 100% (15/15) since it requires that applicants have already secured or are expected to secure farmland.

The Basic Plan for Agriculture, Forestry, and Fisheries of Shiga Prefecture (2021-2025) states that the number of female farmers should increase, and their entrepreneurship should be fostered. As an administrative framework to support new farmers, there are about 100 technical extension advisors (普及指導員) throughout the prefecture, who provide technical advice and assistance to new farmers. In addition, a farm management consultation office is established within the agricultural extension department of each city and town. The Shiga Prefecture Agriculture, Forestry, and Fisheries Leaders Development Fund (滋賀県農林漁業担い手育成基金), a primary financial incentive for fostering new farmers in the prefecture, dispatches agricultural counselors to help new farmers receive administrative support.

In addition to providing a supportive environment for new farmers, Shiga Prefecture has also established a collaborative framework with the private sector. Since 2009, Shiga Prefecture has been implementing the Shiga Prefecture Collaborative Proposal System (滋賀県協働提案制度) to encourage collaboration with businesses, non-profit organizations (NPOs), and local communities. The aim is to increase social contributions and improve prefectural administrative services. It was proposed by the Shiga Prefecture Collaborative Proposal System Review Committee (滋賀県協働提案制度検討委員会), chaired by a professor from Doshisha University.

Rural women's groups, various Public-Private Partnership organizations, and civil society organizations in Shiga Prefecture have significantly contributed to enhancing the well-being of rural women, building networks, and providing training for aspiring female farmers. Aside from JA's Women's Groups (JA 女性組織), there are three prominent rural women’s organizations in Shiga Prefecture. They are the Shiga Prefecture Council of Livelihood Improvement Research Groups (滋賀県生活研究グループ協議会), Kokoku Female Agricultural Commissioners and Agricultural Land Utilization Optimization Promotion Commissioners Council (湖国女性農業･推進委員協議会, hereafter Kokoku Council), and the Shiga 100 Agri-Girls Project (S100AP). The first two are administered by the prefectural government. The Shiga Prefecture Council of Livelihood Improvement

Research Groups was dissolved in 2022 due to the aging of its members and the obsolescence of the initial concept of "livelihood improvement" for farmers' wives in contemporary rural society. Meanwhile, the "Livelihood Improvement Specialists," a type of technical extension advisors, have retired in turn, leaving only one of them remaining. The Kokoku Council, which consists mostly of female farmers who are agricultural committee members over 60 years old, is facing the same aging problem. S100AP is a self-governing civic organization composed of young women who are engaged in agriculture.

6.4.2 Formation and Development Phases

S100AP originated from a group of individuals organized between 2014 and 2015. Since 2018, it has been formally established as a civic organization with a structured membership system. The author categorizes the course of development into two phases: the first phase from 2014 to 2018, and the subsequent phase from 2018 to the present.

Formation Phase

S100AP was founded as an informal group of 6 to 10 individuals with no official designation and framework. Its primary purpose was to foster camaraderie, forge connections, and build a network, and facilitate knowledge sharing and emotional support among female farmers in Shiga prefecture. Therefore, at that time, the main activity of S100AP was simply to share a meal together.

> *After several discussions about their romantic relationships, the young people made the decision to establish a formal institution that they considered would be beneficial for a range of activities… [members' names] assumed the role of primary founders, while I am the subsequent follower*. (KM, 50s).

After naming themselves "the Shiga 100 Agri-Girls Project" in June 2015, the seven founding members have been officially engaged in various civic, economic, and political activities since December 2015 to "nurture people to produce good stuff (良いものを作る人を育てましょう)".

Figure 6-5 the logo of Shiga 100 Agri-Girls Project since 2018

Source: S100AP's official website

Development Phase

Since 2018, S100AP has been incorporated as a membership-based voluntary civic organization, established an official website, and created a logo (see to Figure 6-5) and promotional materials. This was necessary because the initiative needed to establish a formal organizational form in order to receive financial support from the prefectural government and a corporate sponsor.

> *The government officials informed us that we would not be eligible for assistance unless we established ourselves as a legal entity. Meanwhile, Kirin Brewery was actively looking for a well-organized civic organization, rather than just a casual group of friends, to make offerings and support the local community's revitalization efforts. Due to mandates from both the corporation and the government, we had no choice but to establish a formal organization. Although we had no initial aim, out group was expected to actively participate in community revitalization efforts* (HS, single, 30s).

Rather than pursuing grandiose ambitions, S100AP set forth five practical goals in its general plan to foster a society that promotes the free exchange of food and happiness through agriculture. These goals are: (1) supporting diverse agricultural practices, (2) empowering and expanding the population of female farmers who are actively learning cultivation techniques and management skills, (3) fostering a mutually supportive community of producers and consumers, (4) advancing local agricultural and culinary culture, and (5) enhancing the sustainability of agriculture by encouraging more individuals to practice environmentally friendly farming methods. There are four main actions focused on promotion, expansion, cultivation, and connection. First, promotional activities include disseminating information about the agricultural products and lifestyles of autonomous female farmers in Shiga prefecture through their official website, social media platforms, and guidebooks produced and distributed by the municipal and prefectural governments. Second, they are working to expand their business by opening sales outlets at various farmers' markets, jointly selling their products at local supermarkets, and offering gift packages through online platforms. Third, the implementation of growing activities enhances the proficiency and expertise of female farmer members in both managerial and technical skills. This is achieved by holding study sessions, visiting experienced farmers, involving consultants, and jointly procuring agricultural inputs. Fourth, the establishment of connecting activities facilitates the formation of a complex network involving a wide range of stakeholders, such as consumers, businesses, educational institutions, and agricultural producers.

6.4.3 Main Actors in the SI Ecosystem

The ecosystem of S100AP comprises six actor groups: (1) female farmer members, (2) supporting members, (3) retailers, alternative marketplaces and consumers, (4)

governmental bodies, (5) Public-Private Partnership organizations and non-profit organizations (NPOs), and (6) media.

Female farmer members

In recent years, there have been approximately 25 female farmer members, most of whom are in their 30s to 40s. From 2018 until 2020, they were obliged to pay an annual membership fee of 6,000 JPY. However, from April 2021, the fee has been reduced to 3,000 JPY. A total of 81,000 JPY in membership fees was received from farmer members in FY2021. According to their own interview reports on the farming practices of S100AP, 14 members have inherited farms from their own or their spouse's parents, 8 are independent farmers, and 5 are employed by agricultural business enterprises. Their farmlands are located in 12 of the total 18 cities and towns in Shiga Prefecture as shown in Table 7-3-2: Higashi-Omi City, Moriyama City, Omi Hachiman City, Nagahama City, Takashima City, Ryuou Town, Otsu City, Konan City, Aisho Town, Yasu City, Koga City, and Kusatsu City. Most of them are small-scale farmers, growing a variety of crops including rice, vegetables, fruits, edible flowers, and herbs. An annual meeting of all official members is held in May, conducted via Zoom. The organization has a council committee consisting of five directors and one auditor, all of whom are founding members. Of the five directors, three are elected to serve as representative and vice-representative directors. Farmer members often share information on seeds and techniques and communicate their thoughts and feelings to each other through the LINE platform.

Supporting members

The supporting structure of S100AP comprises individual, corporate, and student members. The five sponsoring firms are: Marutane Seed, Setre Marina Biwako Hotel, New Omi Hotel, the vegetable sommelier group, and Kirin Brewert Shiga Factory. The Kirin Brewery Corporation contributed the largest amount of financial support, two million JPY, to S100AP in 2018 through the Kirin Kizuna Project. In addition, about 40 individual supporting members contribute a minimum of 3,000 JPY annually. Individual supporting members include friends or partners of farmer members, as well as those who have no direct relationship with the project but who saw the media headlines and offered to help S100AP. Student members are those who are aspiring to be farmers as a career and are not required to pay membership fees.

Retailers, Alternative Marketplaces and Consumers

Retailers, alternative marketplaces, and individual customers constitute the third category of stakeholders. Retailers include Aeon supermarkets (see Figure 6-6 below), Yahoo Online store, and official members' online sales channels. As alternative marketplaces, there involved are Shiga Toyota Marche, a direct sales shop known as

"Biwako Dainaka Aisaikan[119] (びわこだいなか愛菜館)," as well as various farmers' markets in Shiga Prefecture and other prefectures (see Figure 6-6 up right). Promotional materials such as the stories of female farmers and S100AP are displayed within the designated areas of the direct-sales shop and supermarkets. The S100AP's banners and newspaper clipping are laid out in the selling corner, as well as its logo is placed on each product with the farmer's name (see Figure 6-6). S100AP has established both direct and indirect connections with consumers through the use of multiple sales channels.

Figure 6-6 S100AP in farmers' market, direct sales shop and supermarket.

Source: photos (up right and below) owned by the author and S100AP's official Facebook (https://www.facebook.com/100shigagirls/, last accessed on November 11, 2023)

Governmental Bodies

S100AP maintains either tenuous connections through subsidies and awards or strong connections through government-led joint initiatives involving governmental bodies. These include MAFF, Cabinet Office, Shiga Prefectural administration, Shiga Prefecture Agriculture, Kusatsu City government, and Omihachiman City government. The Shiga Prefectural government, specifically the Agricultural Promotion Division of the Shiga

[119] http://www.aisaikan.jp/,last accessed on November 11, 2023.

Prefectural Department of Agriculture, Forestry, and Fisheries (滋賀県農政水産部農業振興課), is the primary governmental agency responsible for the creation and promotion of S100AP. As an example, S100AP has received the 2021 Women's Challenge Award from the Gender Equality Bureau of the Cabinet Office based on the recommendation of the Agricultural Promotion Division.

PPP Organizations and NPOs

S100AP has further worked with PPP organizations and NPOs to coordinate programs, seminars, and excursions. Major PPP organizations are the Forestry and Fisheries Leaders Development Fund, Yokaichi Minami High School, and the Kokoku Council (湖国女性農業･推進委員協議会). NPOs consist mostly of organic farms and social innovations in the other prefectures. For instance, official representatives of S100AP visited the Wakaba Farm and Food Hub Project in Tokushima Prefecture.

Media

The media plays a crucial role in the SI ecosystem. The local media outlets that covered S100AP stories include Magazine Rusc, Chunichi Shimbun, Shigahochi Shimbun, Yomiuri Shimbun Shiga edition, and Shiga Plus One (Shiga Prefectural government's PR materials, which includes both print and TV platforms). In addition, S100AP frequently uses social media platforms such as Instagram, LINE, Facebook, and its official website to promote its activities. S100AP won the Kinki Region Grand Prize among 46 newspapers at the 7th Regional Revitalization Awards in 2017.

6.5 Scaling strategies

This section examines the scaling strategies – scaling out, scaling up, and scaling deep – used by the SIs. The author also explores how these strategies are implemented by the stakeholders involved.

6.5.1 Scaling Out

The Shiga 100 Agri-girls Project (S100AP) has used "scaling out" strategies by replicating and disseminating SI practices to a wider population and more markets. As a result, farmer members are able to reach out to both niche and broader markets, achieving economic and social advantages. At the same time, supporting members can fulfill their social and ethical desires through these efforts.

> *Individual farmers like us hardly have the opportunity to sell products in large supermarkets or hotels. But when we are working together, these (supermarkets and hotels) offer to do business with us* (TK, married, 50s).

The membership of S100AP has grown from its original 10 founding members to include approximately 25 female farmers, more than 40 individual supporters, and 5 corporate supporters across Shiga Prefecture. Annual membership fees for corporate supporting members starting at 10,000 JPY, and 3,000 JPY for individual supporting members. In addition, S100AP is expanding its reach through various distribution channels, such as local and regional farmers' markets, dedicated sections inside chain supermarkets, direct sales marketplaces, and online platforms. In 2020, they also attempted to offer special gift boxes subsidized by Shiga Prefecture on Yahoo's online shop. All farmer members are expected to actively participate in the implementation of "scaling out" strategies. However, the author's field observations indicate that it is often only a minority (i.e., the founding members and a few active members) that practice collective selling.

6.5.2 Scaling Up

S100AP has actively participated in public-private partnerships, reallocation of institutional resources (subsidies), engagement with governors, and the formulation of novel policies.

Public-Private Partnership

The Agricultural Management Division of the Shiga Prefecture Department of Agriculture and Fisheries launched the "Agribusiness Creation Project Utilizing Women's Power (女性の力を生かしたアグリビジネス創出事業)" in 2017 and 2018, with budgets of 6,090 thousand JPY and 6,000 thousand JPY, respectively, under the framework of the Shiga Prefectural Collaborative Project (滋賀県協働事業). The purpose of this project is to provide educational lectures, events, and sessions specifically tailored for women interested in the agri-food sector. Additionally, the project strives to support female farmers in enhancing their businesses. Four organizations participated in the public-private partnership (PPP) initiative: Pasona Agri-partners Inc., the Shiga Prefecture Council of Livelihood Improvement Research Groups, Kokoku Council of Women's Agricultural Promotion Committee Members, and S100AP. Since 2017, S100AP has been working with Shiga Prefectural government officials to encourage agriculture as a rewarding career and to increase the number of women interested in becoming new-entry farmers or agri-entrepreneurs. This collaboration has included giving lectures at various events such as "Agri-café," symposiums on new farmers, and Agribusiness Management Seminars for women (アグリビジネス経営塾). In 2017, a total of 129 people participated in Agri-café and agribusiness field excursions, and 44 in agribusiness management seminars. S100AP is also included in the nationwide network of the Agri-Girl Project (農業女子 PJ) coordinated by the Ministry of Agriculture, Forestry and

Fisheries (MAFF). Of the 10 female farmers enrolled in this national initiative in Shiga Prefecture, half are current or past core members of S100AP.

Subsidies

S100AP has received many grants and subsidies from various levels of government. The official S100AP website was launched in FY2018 as part of a joint project with an aim to support female farmers in Shiga Prefecture (滋賀県女性農業者のための協働事業). S100AP has begun to operate the website independently since April 2019. Furthermore, as part of the same joint project, the prefectural government provided financial support for the creation of all S100AP promotional items, including the website, logo, banners, T-shirts, packaging, and stickers. S100AP received a subsidy of 308,314 JPY for promoting the active participation of women (女性の活躍推進対策補助金). This subsidy falls under the "Women Activity Promotion Measures Program (女性の活躍推進対策事業)" administered by MAFF and was obtained for FY2021.

Invited Voice in the Meetings of Development of policies on female farmers

After the group was established, S100AP started political outreach towards the Shiga Prefectural and municipal government. As an illustration, on May 22, 2016, ten individuals integral to the establishment of S100AP sought an opportunity to meet Toshie Ikenaga, Vice Governor of Shiga Prefecture, who is also the chief of the Shiga Gender Equality Promotion Division (滋賀県男女共同参画推進本部), in order to express their views from the perspective of women farmers on policymaking to revitalize the agricultural sector.

Because of its high reputation among government bodies, PPP organizations and the media, S100AP has been given several opportunities to express its views in policymaking discussions on improving female farmers and entrepreneurs. They have participated in policymaking mainly in Shiga Prefecture, Kusatsu City, and Omihachiman City.

> *As one of the representative directors of S100AP, I am invited three times a year to meetings to discuss policies about increasing the number of women farmers in the prefecture. I don't think I would have been invited to or attended such meetings if I had left S100AP* (TK, 50s).

Meeting with High-rank Officials

Aside from engaging in meetings with prefectural and city officials in charge of agricultural administration, the representative directors of S100AP also have had opportunities to speak with the governor of Shiga Prefecture, and the Minister of Cabinet Office. S100AP's three key persons received invitations to participate as guests in the Shiga Prefectural New Year's Dialogue with Taizo Mikazuki, the Governor of Shiga Prefecture, in January 2021. In addition, as a recipient of the 2021 Women's Challenge

Support Award (女性のチャレンジ支援賞), S100AP had the opportunity to hold a virtual meeting with Tamayo Marukawa, Minister of State for Special Missions (Gender Equality) and exchange their views on the perspectives of female farmers in July 2021.

6.5.3 Scaling Deep

S100AP has used "scaling deep" strategies, which include actively participating in media coverage and spreading the story of farmer members through promotional materials in sales channels and product branding. S100AP also utilizes several social media platforms, including its official website, LINE, Instagram, and Facebook.

In addition, S100AP arranges farm visitation events in several prefectures, educational seminars and sessions on agricultural techniques and promotional strategies, and other activities aimed at fostering relationships between producers and consumers. As an example, S100AP, in collaboration with the chefs of SETRE Marina Biwako Hotel, organized a public event named "Blue Sky Restaurant" in 2019, at a farm owned by one of S100AP members. S100AP effectively showcased the stories and goods of female farmers to a wider audience by providing consumers the opportunity to harvest vegetables themselves and enjoy them on the farm. In 2021, the four core members taught a class on agriculture and nutritious eating at Yokaichi Minami High School with the aim of educating students about the importance of the interconnections between humans and the environment. They also offered handmade lunch boxes to the students to show them how delicious organic vegetables can be.

Finally, an internship and trainee program has been established to foster new female farmers in the prefecture. In 2020, five trainees completed their training, one of whom was hired by a member farm to become a key director.

6.5.4 Struggles and Difficulties

Considering the current male-dominated situation in agriculture and rural areas, the network provided by S100AP is of great value to female farmers, who are either a minority or the only women farmers in their communities.

> *I think that the (JA's) women's club was not for women farmers but for supporters of their husbands, so we never talked about business (in the women's club). Of course, I do know and have connections with some women farmers in this area* (KM, married, late 50s).

Conversely, S100AP effectively enables female farmers to express their ideas directly to government officials, thus promoting substantial gender equality. In spite of the progress in addressing gender inequality in decision-making in rural regions via clear rules of female participation, the respondents have given unfavorable comments.

There is a "gender gap rule" that an agreement can't be made without at least one woman. Despite I have no connection with JA (natural farming methods and direct sale channels do not need support from JA), just because there are so few women in the community, they really need one woman to be a representative, and they asked me to help. I'm really in trouble (TK, 50s).

Nevertheless, S100AP is encountering three unique challenges related to the burden on directors, financial deficiency, and a shortage of human resources, which pose a threat to the stability and future progress of its social innovation. The first challenge is the inadequate allocation of directors' energy and time to various tasks. Although the directors are eager to meet the needs of supporting members and the public expectations, farmer members are too busy fulfilling their own farming goals and business, family care, and community obligations to engage in S100AP activities.

We don't have the time. Each of us (directors) is too busy to get together. We all live our lives according to our crops. It is difficult to organize events for others (supporting members), even though I think people would be happy if we did more things (IM, the early 40s).

I have to take care of my divorced daughter's son, so I haven't had time for S100AP for the past three or four years… Other director members told me to mute myself all the time when we had a board meeting via Zoom because my grandson was too noisy (KM, the late 50s).

I was once asked to be an agricultural commissioner (農業委員). I declined because it is not easy to work for both. If my mother-in-law retires (from being an agricultural commissioner), I will have to do it. I'll quit S100AP then (TK, 50s).

The challenge of balancing one's personal matters and the responsibilities of being a director for S100AP inevitably leads to adverse outcomes. One of the most critical factors is the inefficiency of decision-making and the bothersome emotions experienced by those in positions of responsibility.

When an activity is proposed, *all of us (director members) must agree upon the plan otherwise it cannot move forward…But the problem is all of us are extremely busy that it's hard to get their opinions. Responses are always hugely delayed. Because everyone is busy. It's frustrating* (TK, 50s).

The second challenge is a financial deficiency in the near future. In FY2021, membership fee income was 236.5 thousand JPY, event income was 188.59 thousand JPY, subsidy was 309.314 thousand JPY and carryover from the previous fiscal year was 1721.16 thousand JPY. Meanwhile, management cost was 412.25 thousand JPY and operating expenses were 518.6 thousand JPY. To say, there is a discrepancy of 196.45 thousand JPY between the total income, consisting of the membership fee, event income and subsidy, and the cost of

management and operation. S100AP's sustainability is mostly attributed to the generous contribution of two million JPY from a corporate supporting member in 2018 and 2019, as well as subsequent subsidies from the national and prefectural governments. Despite the fact that S100AP still has about 1.5 million JPY in reserves to maintain its operation, the representative director considers this challenge to be the most critical and pressing to its self-sustainability without an increasing number of members paying membership fees and stable and constant subsidies. She is seeking to obtain further government subsidies; however, this effort is challenging due to the time and energy required. Curiously, all the respondents used the phrase "taihen (大変)" (meaning "dreadful" in Japanese) and were sympathetic to the representative director having to take on the enormous amount of paperwork for subsidy applications.

> A*t least 300 thousand JPY needs to be budgeted for our survival. We need to give our group more meaning and significance because just sharing and disseminating information and bonding with each other is not enough to receive government grants and subsidies* (HS, late 30s).

Finally, the problem of over-dependence on the founding members is clearly noticeable. Currently, there is a lack of individuals willing to take on the role of director and undertake event arrangements. The statements of a key member highlight that, apart from their personal motivation, the progress of the project has been hindered by the domestic responsibilities of female farmers as wives and mothers.

> *I do hope that more women will want to farm in Shiga Prefecture (thanks to S100AP) … But the founding members are getting older and older, and I wonder how long we (founding members) have to continue taking on the responsibility of the directors. It is difficult to find people who are willing to spend the time to take on such duties… Some new members have tried but couldn't sustain it due to marriage or childbirth. Most formal members want to join just in case or exchange information rather than commit themselves to our group* (IM, married, the early 40s).

6.6 Discussion

This section analyzes the data presented in the previous two sections to better understand the S100AP ecosystem. Focusing on the external environments and stakeholders involved, it examines the scaling strategies adopted by the SI to achieve systemic impacts. The author's objective is to address inquiries about how the strategies are adopted, who is responsible for their implementation, how they are implemented, and what has made their implementation effective.

6.6.1 SI Ecosystem

The S100AP's Social Innovation (SI) ecosystem encompasses the socio-political and economic environments, as well as the individuals and organizations involved, in Shiga Prefecture and beyond. Regarding the external environments, it is important to note that women engaged in farming continue to be geographically, culturally, and socially isolated and marginalized within the agricultural and rural sectors. Whereas the economic and political conditions in Shiga Prefecture are becoming more favorable for the development of female farmers and their entrepreneurial endeavors. In the face of these external conditions, S100AP has been conceived and nurtured by a group of independent female farmers, with government and business support. Figure 6-7 illustrates the S100AP ecosystem, which comprises six different groups of stakeholders: (1) female farmer members, (2) supporting members, (3) retailers, alternative marketplaces, and consumers, (4) governmental bodies, (5) public-private partnership organizations and non-profit organizations, and (6) media.

S100AP is the first citizen-led organization of female farmers in Shiga prefecture. From the early stage, it has worked closely with the prefectural and local governments. As a result, S100AP has gained significant visibility both in the mainstream media and in many government bodies, ranging from local municipalities to regional prefectures. Recently, thanks to the media and the efforts of the prefectural government, interest in S100AP has been growing outside of Shiga Prefecture as well. It has further received recognition from the national government for its efforts to improve the status of female farmers. In particular, S100AP has been officially recognized by the national "Agri-Girls Project" as the sole organization of female farmers in Shiga Prefecture. These facts substantiate that S100AP is a very effective and successful example of bottom-up SI.

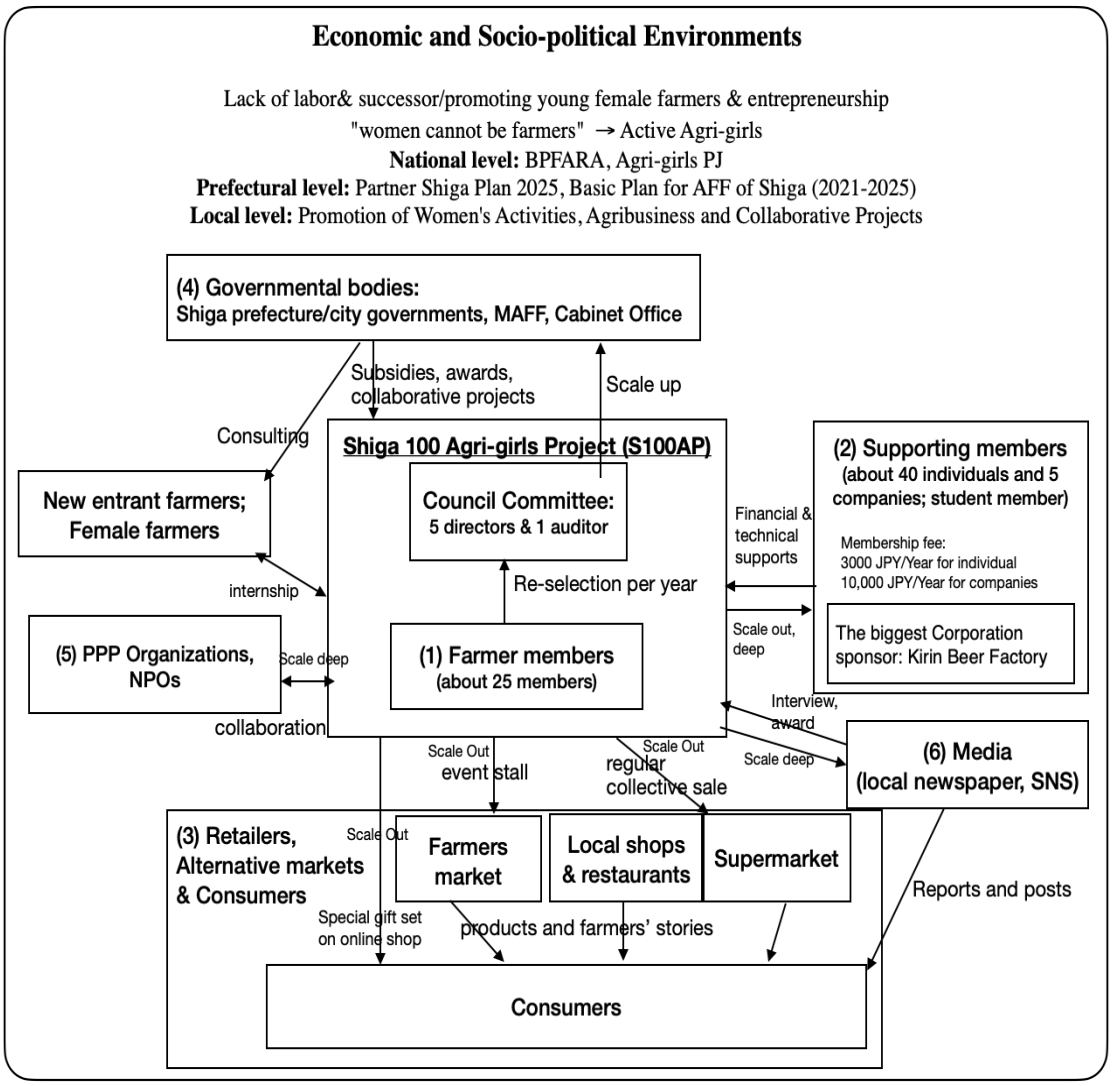

Figure 6-7 Ecosystem of S100AP

Source: Elaborated by the author based on the interviews and information on the S100AP's official website, https://shiga-agrigirls.com/about-100pj/, last accessed on Sep. 24, 2022.

6.6.2 Scaling Strategies

As discussed in section 7.5, S100AP has been involved in actions related to horizontal expansion (scaling out), vertical expansion (scaling up), and deepening expansion (scaling deep). S100AP has primarily employed "scaling out" strategies, such as establishing membership for female farmers and implementing support networks for interested individuals, businesses, and students. It also focuses on collective marketing through various channels. The strategies for "scaling up" include establishing public-private partnerships (PPP), obtaining grants and subsidies, interacting with high-rank officials (e.g., Governor and Vice Governor), and developing novel policies. S100AP actively promotes the importance of diverse farming styles, female farmers, human-

nature relationships, and close producer-consumer relationships. This is achieved through a variety of means, such as sharing their stories through different media platforms, organizing workshops and cultural activities, and providing new entry farmers and entrepreneurs with training and internship opportunities.

It is the core members, or the founding members, who are most responsible for implementing these methods. It is clear that there is a tendency to rely too much on the founding members, while others lack enthusiasm and act as free riders who are interested only in exchanging information on the LINE platform. Members' lack of enthusiasm and motivation is manifested in their limited engagement in economic and social activities, their reluctance to initiate new endeavors, and their indifference or inability to take on leadership positions. Occasionally, this is due to the need for married women to attend to family responsibilities such as child-rearing, caring for the elderly, and seeing their grandchildren. The gender difficulties often found in rural Japan are also evident in this case study., In particular, mothers, daughters, and wives prioritize fulfilling family responsibilities, sometimes at the expense of their personal needs. S100AP currently encounters challenges in terms of the burden on directors, lack of funds, and shortage of human resources due to a number of factors. These include the low motivation of most female farmer members, a loose organizational structure, inefficient management and decision-making processes, and the absence of core economic activities.

These challenges have forced S100AP to prioritize funding from well-funded supporting members, public institutions, and PPP organizations. For instance, the director in charge expressed concerns over financial issues and, specifically calling for more government subsidies to offset expenditures related to operating costs and cyber fees. The author refers to these external stakeholders, whom S100AP relies on, as resource owners. Resource owners in this case include supporting members (individuals and businesses), government bodies, and the media. They have become integral components of the SI ecosystem by pursuing their ethical and moral imperatives, corporate social responsibilities (CSR), and political objectives. In order to achieve these goals, they actively pursue involvement in civic groups and embrace social innovations as a means of redistributing some of their financial and social resources. The Shiga Prefectural government and the Kirin Brewery Shiga Factory were instrumental in establishing and institutionalizing S100AP, as a framework that ensures the enduring viability and expansion of SI. Moreover, individuals who own resources are the ones who approve and facilitate the implementation of S100AP's scaling strategies, particularly "scaling up," which is most likely to change the existing system. Put simply, S100AP lacks the power and capacity necessary to bring about significant transformation in the present system without the backing of governments. This statement does not imply that S100AP

is a failure in transforming society; rather, it underscores the limitations imposed by resource owners on the capacity of SI to transform the existing system.

The S100AP initiative, as a bottom-up SI, has achieved significant results and contributions in reshaping the social behavior of rural women and improving the overall welfare of society in support of female agri-entrepreneurs in Shiga prefecture. Nevertheless, the author contends that it is crucial to focus on the power dynamics inside the SI ecosystem, rather than only on the outward image of success perpetuated by resource owners. Furthermore, the challenges and obstacles faced by SI in implementing its scaling strategies provide valuable lessons that external factors, such as gender issues in rural Japan, have a significant influence on individual and organizational choices.

6.7 Conclusion

Overall, the establishment of S100AP has led to the development of an ecosystem that is distinctive in terms of specific economic and socio-political environments as well as the involvement of a diverse group of individuals and organizations. The adoption of scaling strategies and its potential to bring about significant changes in rural populations in Japan could be limited by a number of constraints within a specific social innovation ecosystem. These constraints include internal conflicts and challenges within the SI itself, gender-related concerns in external contexts, and the preferences and influence of resource owners. These constraints impede the capacity of scaling SI to effectively transform the current system and achieve substantial changes in rural areas. The aforementioned constraints are hidden inside the apparent notion of "success" associated with SI, which is often driven by resource owners who are largely regime actors motivated by self-interest. Due to the diverse characteristics of the SI ecosystem and the socio-political conditions faced by rural women engaged in agriculture, it is not possible to directly apply the results and experiences of the S100AP case study to all the other 46 prefectures. The author argues that a thorough analysis of power dynamics is essential to effectively adopt scaling strategies in environments where apparently significant SI has emerged, as shown by studies on SI and rural development conducted in various contexts.

Chapter 7: Discussion

This chapter is organized into two sections: social innovation (SI) ecosystem as an outcome and as a process, based on the definition[120] identified in Chapter 2, which consists of socio-political and economic environments and actors in political, economic and social domains. The first section provides a comparative analysis of the findings from the three SI ecosystems: the Kagoshima Organic Farmers Association (KOFA: かごしま有機生産組合), the Time for Agri (アグリナジカン), and the Shiga 100 Agri-girls project (S100AP:しが農業女子 100 人プロジェクト). They will be assessed based on: (1) their attainment of social capital in terms of size, complexity, dynamics, and distribution of activities, (2) common characteristics of a progressive and more friendly socio-political atmosphere for the emergence and development of SI in general, and notable variations in the respective socio-political and economic environments in specific sectors and regions, and (3) similarities among SI developers, promoters and supporters in political, economic and social domains.

The second section focuses on the dynamics of the formation and take-off processes of the SI as well as the drivers and constraints of the scaling strategies implemented by specifically examining the power relations between actors involved in the economic, political and social domains. The seven main results and issues discussed are: (1) the dynamic pathways of SI development ranging from temporary to long-term, and from community-driven to market-driven; (2) the critical role played by past SIs in the regional ecosystem in the development of new SIs; (3) how both "structure" and "agency" are important for SI formation and take-off; (4) there are no one-size-fits-all models for successful SI; (5) the presence of hidden power imbalances, difficulties and conflicts existing within successful SI developers or operational organizations; (6) dilemmas and incentive structures that compromise or deviate from stated values and principles to meet the needs of powerful SI actors; and (7) the important role of economic and socio-political foundations in the future stability and sustainability of SI.

7.1 SI Ecosystems as Outcome

This section provides a brief overview and comparative analysis of the static SI ecosystem (as an outcome) in each case study in order to understand the differences and similarities

[120] The features of SI define itself as (1) the process and outcome whereas it is often intangible and not necessarily bound to a physical space, (2) it reconfigures social practices (i.e., novelty) as well as meeting social needs and enhancing societal well-being through collective action and civic engagement, (3) path-dependent and contextual.

of the SI ecosystems, which include (1) the economic and socio-political environments and (2) key actors. In particular, a categorization of actors will be provided according to their function (i.e., SI developers, promoters and supporters) (Terstriep et al., 2015) and by the political, economic and social domains to which they belong (based on the analytical framework provided in Chapter 3).

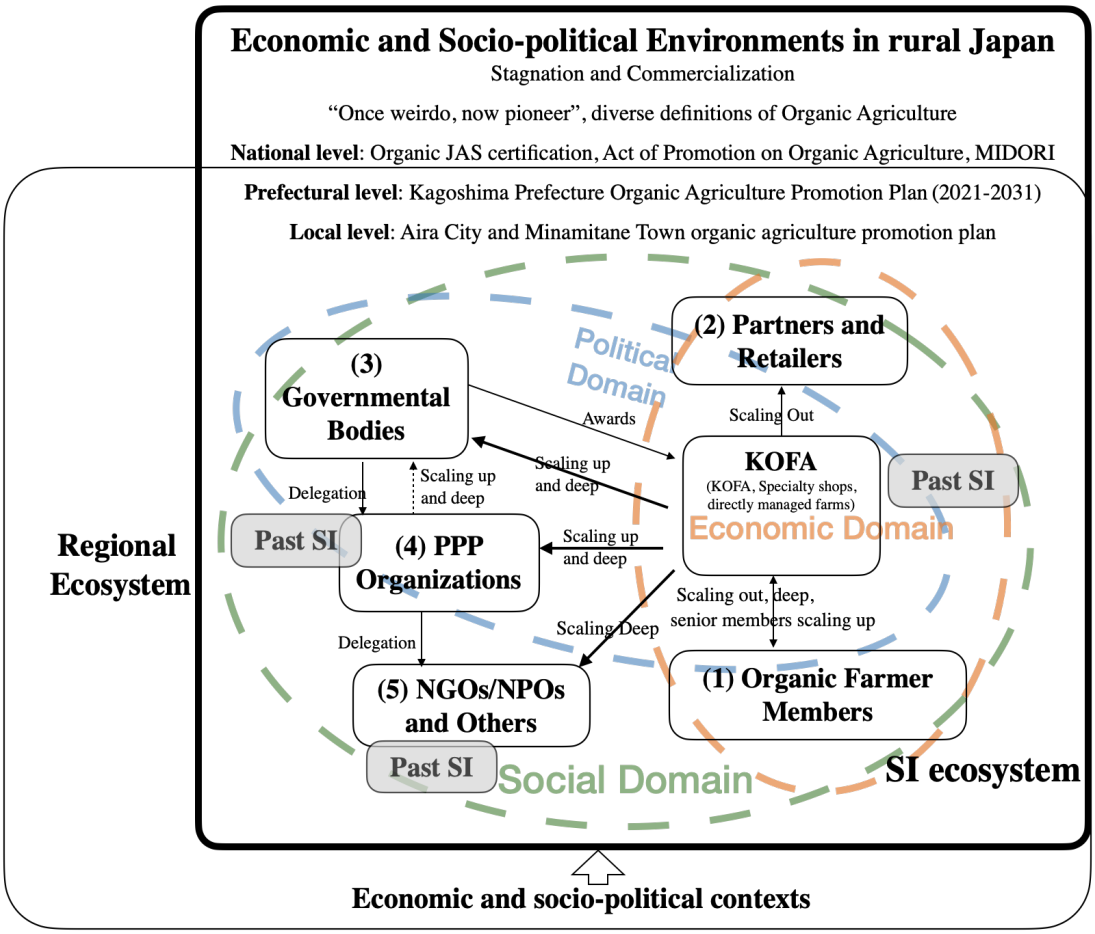

Figure 7-1 KOFA's SI ecosystem in three domains

Source: developed by Author.

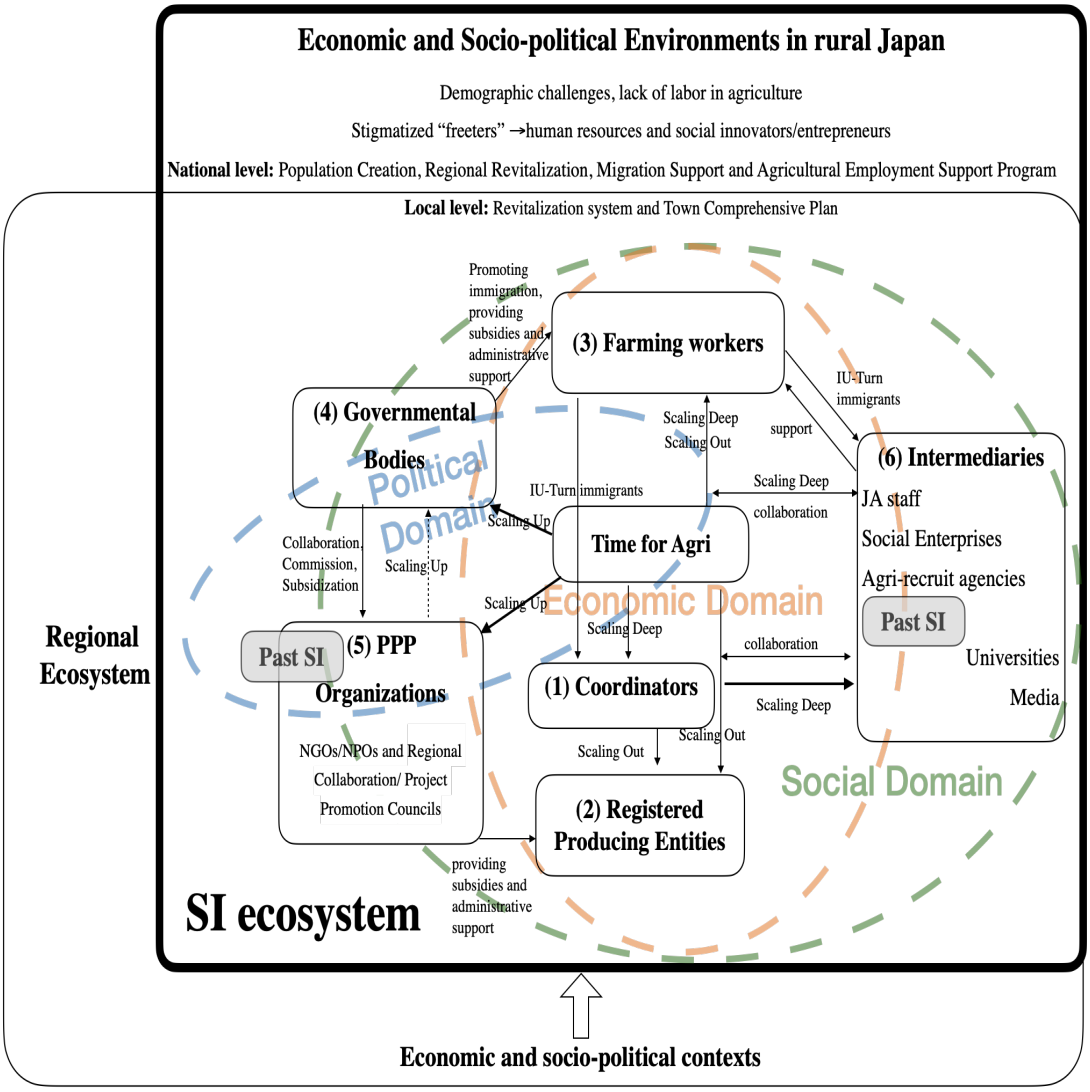

Figure 7-2 Time for Agri's SI Ecosystem by three domains.

Source: developed by Author.

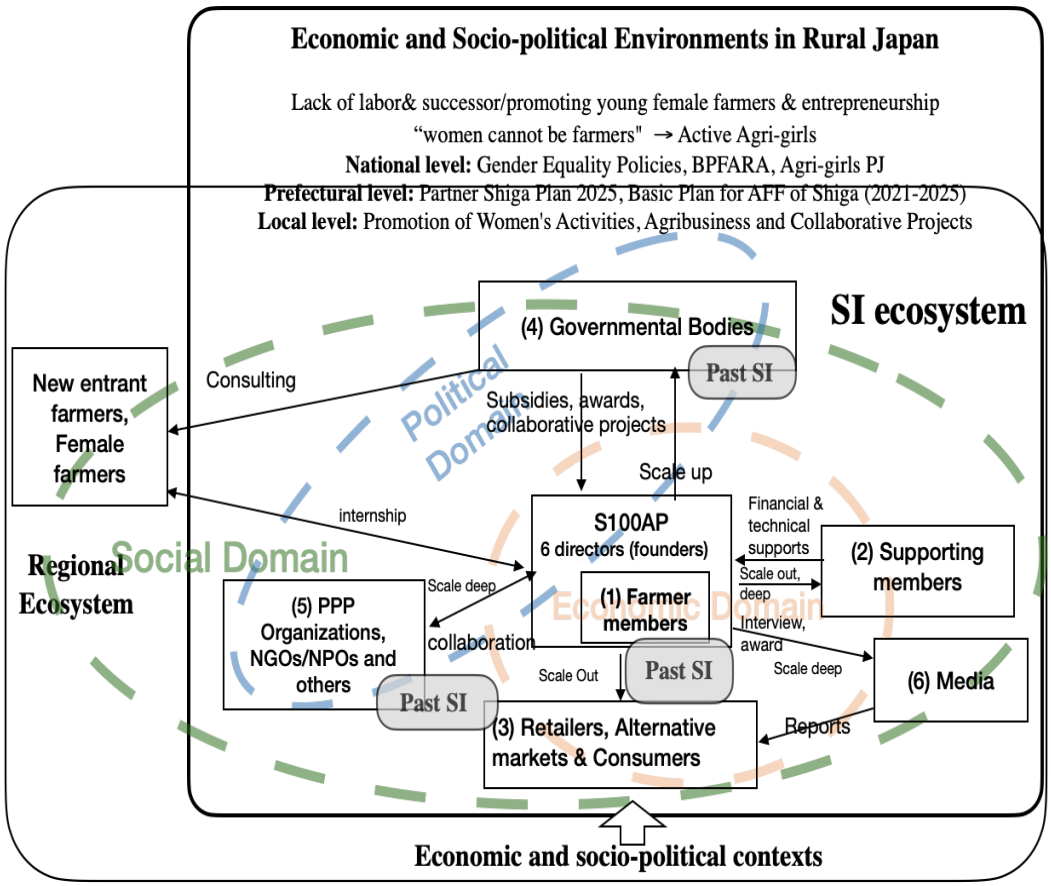

Figure 7-3 S100AP's SI ecosystem by three domains.

Source: developed by Author.

7.1.1 Social Capital in Three SI Ecosystems

The findings suggest that there are clearly different attainments of social capital among the three SI ecosystems in terms of their size, complexity, dynamics and distribution of activities across political, economic, and social domains (see Figure 7-1, Figure 7-2 and Figure 7-3). Among the three cases examined, the KOFA's ecosystem had the largest social capital[121] based on the number of actors inside the SI (consisting of three entities with about 75 employees and 160 associated members) and the degree of complexity and diversity of external stakeholders. In addition, this SI ecosystem is characterized by a wide range of dynamic economic development endeavors, including the introduction of novel products, the nurturing of new farmers, and the establishment of fresh local and international distribution networks alongside proactive collaboration, communication, and cooperation with both central and local government bodies and civil society organizations.

Second, the SI ecosystem of S100AP is characterized by its relatively small size and simplicity, which is partially due to its shorter development period compared to KOFA. Given that female farmers remain underrepresented in society, the network has incorporated primarily non-farmer supporters and corporations as members. The S100AP group has built significant social capital from the media and government attention given their unique status as the sole citizen-led female farmers' organization in their prefecture. In addition, the group established strong relationships with the prefectural and municipal governments in its early stages, extending to and the central government, which played a significant role in advancing the empowerment of female farmers.

Third, the Time for Agri, although being established at the same time as S100AP, has exhibited a higher level of ecological complexity and reach in its development due to the diversity of individuals involved and the extensive national influence. However, while

[121] Social capital refers to " the ties that bind neighbors, friends, and acquaintances together, deepening their trust and making their collective action more likely "（Aldrich, 2012, p.174）. There are three types of social capital: bonding, bridging and linking social capitals, which play an important role in the recovery and rehabilitation of post-disaster regions (Nakagawa & Shaw, 2014, cited in Aldrich, 2012, p.165). This concept is suitable to the context of decline and marginalized rural areas in Japan. Bonding social capital describes a type of social tie within a group of people characterized by their homogeneity, such as family members, neighbors and friends. Bridging social capital links people in a society with different classes, races and religions. Linking social capital is the type of social capital that vertically links actors between civil society and the government. In this study, the indicators of the measurement of social capital are networks' size (i.e., number of actors and its coverage of activities), complexity (i.e., number of connections and the frequency of interactions between different actors within the network), dynamics (i.e., number of forms of activities and increasing number of involved actors in these activities) and distribution of activities across political, economic, and social domains (which often in results of bridging, linking and bonding social capital).

Time for Agri has social capital with local media, civic groups, and several academics, its influence with the prefectural and higher-level governmental bodies is limited.

In summary, among the three cases, the social capital of KOFA in its SI ecosystem leads in all aspects including size, complexity, dynamics and distribution of activities across the political, economic, and social domains. The social capital of Time for Agri and S100AP have great performance on the size, complexity and distribution of activities vertically and horizontally in economic and social domains. Nevertheless, compared to KOFA's SI ecosystem, these two ecosystems possess fewer dynamics and favorable advocacies and ties in the political domain.

7.1.2 Economic and Socio-political Environments

The pre-dependent and contextual characteristics of SI (Moulaert et al., 2013) require SI ecosystems to be examined case by case and from a spatial and temporal perspective. Therefore, this subsection delves deeper into the similarities and differences of the economic and socio-political environments in which the three SI ecosystems lie. These environments are shaped by the institutional and material infrastructures, social norms, public narratives, actions and networks of diverse actors, and histories and cultural legacies

In the Japanese rural settings, there have been significant changes in the economic and socio-political environments in which SIs are embedded (see Figure 7-1, Figure 7-2 and Figure 7-3). First, the general economic environment in rural areas has been transforming towards being more receptive to external stakeholders and more conducive to entrepreneurial endeavors and start-ups. This change is facilitated by the rencent advances in information and communication technology (ICT) and the widespread use of social media platforms. Among the three cases, the economic environment in the case of KOFA suggests a unique feature derived from the development of the organic agriculture sector characterized by commercialization and stagnation. The organic agriculture movement, which originally encompassed pro-social economic activities conducted through "*Teikei*" partnerships between organic farmers and customers, was gradually transformed within the context of the commercialization of the organic agri-food system. This transformation was aided and facilitated by the development and implementation of the organic certification scheme. Moreover, the economic environment in the three case studies shared similar demographic challenges based on depopulation and aging, causing a shortage of labor and successors. As a result, the significance of young individuals as indispensable human capital, regardless of gender or professional background, was a common factor in all three cases.

Second, changes in the social environment have resulted in all three SI cases experiencing a shift from being socially, culturally and politically disadvantaged in the past to being highly valued and admired. Historically, rural communities often disparaged organic farmers, "*Henjin*" or eccentric individuals, looked down on young individuals lacking formal employment or rural women who farm. In recent years, however, the social context has been changing and is reflected in policy and public events and narratives. Organic farmers are being hailed as pioneers in restoring harmonious connections among individuals as well as between humans and the natural environment. There is a growing trend among young individuals to engage in freelance work in remote and rural areas, emerging as local entrepreneurs and highly sought-after human resources. Additionally, female farmers are increasingly recognized by local communities and governments as making indispensable contributions to the agricultural sector and rural areas as a whole. Similarly, an examination of the case studies in this thesis reveals actual improvements in circumstances surrounding the decision-making processes and daily lives of organic farmers, young freelancers and female farmers. These improvements can be attributed to the efficacy of a persuasive narrative due to the combined influence of mass media and governmental initiatives. Nevertheless, the findings still acknowledge that the restrictive and discriminating mentality that once prevailed in rural areas continues to exist in a more hidden form.

Finally, the political environments of the three SI ecosystems are all influenced by Japan's rural policies and administration, which are based on a tripartite government structure consisting of the national government, prefectures, and municipalities. However, the political environments in the three SI ecosystems exhibit greatly different characteristics, as the three SIs are subject to specific laws and regulations at the national level depending on their predominant economic and social undertakings, and at the prefectural and local levels they have different levels of involvement in the policies implemented. As a result, the KOFA's and S100AP's ecosystems have more layers of vertical reach to political influencers, while Time for Agri is more horizontal and stretches out more to local communities.

In summary, the economic and socio-political environments in the three SI ecosystems exhibited both shared characteristics and notable variations in their respective contexts. The discussion above suggests a similarity that rural Japan has become a place that has a more progressive and friendly socio-political atmosphere for SI's creation and development (at least in public narratives). On the other hand, the economic and political environments in the three SI ecosystems show significant differences due to the uniqueness of the attributed sector as well as differences in economic and political traditions and contexts.

7.1.3 SI developers, Promoters and Supporters in Three Domains

There are similarities among the actors seen throughout the three case studies, despite the fact that each SI operates within a different context and addresses different social issues. According to Terstriep et al. (2015), the roles played by the main actors within the SI ecosystem can be divided into four types: they are SI developers, promoters, supporters and knowledge providers (c.f. Chapter 2). The case studies in this thesis identified SI developers, promoters, and supporters, while the role of knowledge provider occasionally overlapped with the aforementioned actors due to the co-creation and co-learning characteristics often found in grassroots SI. This subsection focuses on the roles of SI developers, promoters and supporters in the political, economic and social domains.

SI developers

According to Terstriep et al. (2015), "SI developers" are the actors fundamental to SI, with the capacity to effectively use their expertise to bring about social impact. In this sense, the "developers" in the three SI initiatives are the founders of SI (i.e., two representative directors and some old farmer members of KOFA, the founder of Time for Agri, and the representative director of S100AP) as well as the employees, coordinators and directors. The founders were predominantly young people in their 30s (at the time of the establishment of the SI initiatives) who often have a bachelor's degree and exhibit a greater propensity for incorporating and implementing external ideas, incorporating new knowledge, resources, and social capital than their peers in their respective hometowns or places they settled down. As a result, an increasing number of "U-turners" and "I-turners" became engaged in SI. This was the case in the KOFA's SI ecosystem where representative directors, staff of directly managed farms and organic farmer members; the founder, coordinators, some workers and social entrepreneurs in the Time for Agri's ecosystem; and some representative directors and female farmer members in the S100AP's ecosystem were of a particular type of person in society. These individuals in the SI ecosystems are mostly motivated by growing environmental concerns in rural Japan. Having had a certain level of life experience where many have faced a significant crisis or renewed their approach to life, prompted them to make changes in their lifestyles and new relations to communities. Interestingly, the majority of "I-turners" and "U-turners" among SI developers in this research exhibited a preference for engaging in organic or natural agricultural practices over conventional ways. Furthermore, there is evidence of a trend that SI developers increasingly and effectively utilize social media platforms as a means to augment their reach to a wider population.

In summary, the similarities among SI developers in the three case studies can be attributed to the open-minded attitude of youth and their acquisition of external knowledge, ideas, social capital and resources; their "nomadic" lifestyle, a reflection of

their lifestyle; their preference for environment-friendly and ethical farming methods; and their new norms of utilizing social media platforms.

Promoters and Supporters in three domains

In addition to SI developers, "promoters" (who directly provide material and financial resources and social capital to link "micro" to "macro") and "supporters" (who enable the dissemination and proliferation of SI) (Terstriep et al., 2015) among SI stakeholders, can be classified into three categories according to their respective political, economic, and social domains (as seen in Table 7-1). These key actors are the resource owners in their respective domains. Thus, they are more likely to be "promoters" than "supporters" in their respective domains if they indeed provide resources to SI regardless of whether intangible or tangible.

Table 7-1 Promoters/Supporters in SI Ecosystems

	KOFA	Time for Agri	S100AP
Political Actor	**(a)** National level: MAFF, NPO organic association, JICA, JETRO. **(b)** Prefectural level: prefectural government, PPP organizations **(c)**Local level: municipality governments, PPP organizations, JA Aira.	**(a)** Prefectural level: regional agricultural bureau, prefectural government **(b)** Local level: municipality governments, PPP organizations	**(a)** National level: MAFF, Cabinet Office. **(b)** Prefectural level: prefectural government, PPP organizations **(c)** Local level: municipality governments
Economic Actor	**(a)** Partners and retailer, delivery companies, online shopping corporations, and importers. **(b)** Consumers of online shops, specialty shops, the cafe. **(c)** In-put companies	**(a)** Agri-talent agencies, **(b)** Agri-workers **(c)** farmers, processing companies	**(a)** Supporting members **(b)** Retailors, farmers' markets, Online shops. **(c)** individual consumers
Social Actor	**(a)** Economic actors **(b)** Political actors (c) NGOs/NPOs and others	**(a)** Economic actors **(b)** Political actors **(c)** Intermediaries: NGOs/NPOs, Universities, local restaurants, entrepreneurs, JA staff	**(a)** Economic actors **(b)** Political actors **(c)** NGOs/NPOs and others: student members, high school, and women farmers groups
Received Award(s)	2018 Kagoshima Specialty Products Association President's Award. 2019 MAFF Award. 2022 Minister of the Environment Award.	None	2017 The 7th Regional Revitalization Kinki Region Grand Prize. 2021 Women's Challenge Support Award.
Actors/ social	Governmental bodies, PPP organizations, intellectual organizations and media	governmental bodies, PPP organizations, intellectual	Governmental bodies, PPP organizations, intellectual

media platform celebrat-ing SI		organizations and media	organizations and media
	Instagram, official website, NPOs' Youtube channels, Line	Podcast, Youtube, Facebook, official website, Line, Instagram	Instagram, Facebook, official website, Line

Source: Elaborated by Author.

Firstly, the key actors in the political domain are governmental bodies and PPP organizations in the respective SI ecosystems. The difference is that in the KOFA and S100AP ecosystems, they have more ties with governmental bodies across multiple tiers, whereas in the Time for Agri ecosystem, the number of relevant governmental bodies is relatively small, and the relationships are distant. These Japanese cases show the same results as the empirical findings based on the SI-DRIVE database [122] that the governmental bodies (referred to as public bodies in Butzin & Terstriep, 2018) play a leading role as "promoters" providing resources (57% of the total 481 promoters in the case study of Butzin & Terstriep, 2018). However, it is worth emphasizing that PPP organizations, involving public foundations, regional/agricultural sector promotion councils and delegated NGOs/NPOs, are the main intermediaries in the indirect allocation of financial and social resources by the governmental bodies to the three SI initiatives. Governmental bodies often recognize SIs directly by awarding their particular contributions and inviting SI delegates to informal meetings and workshops. In this case, both governmental bodies and the PPP organizations are "promoters" if they subsidize SI. However, this finding that PPP organizations play an important role contradicts results from other country cases where the role of PPPs is less influential (Butzin & Terstriep, 2018). This finding sheds light on the importance of Japanese cases in SI studies, which are distinct in their theoretical origins (i.e., the US and European SI scholars) based on a unique socio-political "welfare" tradition since the 1980s (Kimura, 2018).

Secondly, the key economic actors in the three cases can be classified by respective economic activities of SI initiatives, which encompass upstream product or labor suppliers, downstream wholesalers, retailers, and individual consumers, or staffing agencies and employers of temporary labor. Specifically, economic partners within the KOFA's ecosystem include suppliers, supermarkets, organic food delivery firms, consumer organizations, and individual consumers. In the S100AP ecosystem, economic actors include not only suppliers and customers but also other relevant members within

[122] The EU-funded large-scale project SI-DRIVE ("Social Innovation: Driving Force of Social Change", 2014-2017) conducted a worldwide Comparative Analysis of 1005 social innovation cases in different world regions (beneath Europe including Australia/New Zealand, Western and South-East Asia, North and South Africa, North and South America, and Russia). No case in Japan.

the supporting system. The Time for Agri's economic domain comprises agri-talent agencies, workers and producers.

Finally, in the social domain of the three ecosystems, in addition to political and economic actors, NGOs/NPOs, JA staff, social enterprises, individual citizens, media and knowledge institutions are the key social actors. Among them, NGOs/NPOs and media play the role of collaborators, while individual citizens, some researchers interested in SI initiatives, and students from local high schools and universities appear as receivers of SI ideas and potential "developers". Regarding the latter, for example, KOFA hires high school and undergraduate students as part-time workers, Time for Agri has delivered specialized lectures at two universities, and S100AP has student members and conducts educational activities at a local high school.

Noticeably, this research found it difficult to explain the dynamic and overlapping roles among diverse actors when solely applying the categories of "promoters" and "supporters". Among political, economic and social actors, governmental bodies and PPP organizations, along with researchers and traditional and contemporary forms of social media, perform significant functions in promoting and supporting SI inside specific interest groups and to broader audiences. In this sense, governmental bodies, PPP organizations, researchers and media can be classified as both direct resource providers, or "promoters", and indirect drivers, or "supporters". Importantly, these actors are interdependent on each other when functioning as promoters and supporters. In particular, the praise that SI has received from governmental bodies and PPP organizations has increased media and research attention on SI's activities and achievements. On the other hand, the use of traditional media coverage and social media platforms by SI developers enables them to enhance the public acceptance of SI after receiving awards from industry, media and governments. Altogether, the creation of such positive narratives by SI developers, governmental bodies, PPP organizations, researchers and media can better promote and support SI in the economic, social, and political domains and further increase social awareness in the future. In this regard, disseminating the (potential) impact of SI on society is not only about the implementation and outcomes of SI itself but also about the portrayal of the SI's successful stories and the legitimization narratives by SI developers, governmental bodies, PPP organizations, researchers and media collectively (though they have different motivations). Hence, delineating a clear distinction between "promoters" and "supporters" is difficult and ineffective, as all of these stakeholders have the potential to provide valuable knowledge and social capital that is essential for the diffusion of SI, while at the same time providing social resource and/or financial resources to SI. The difficulty of such a classification may be due to the fact that the role of actors is fluid and dynamic in reality, whereas the framework of actors must be static (Terstriep et al., 2015). As Butzina and Terstriep point

out, “actors may have more than one role in SI which is subject to change over time,” leading to categories characterized by blurred boundaries (2018, p.79). This research provides a new and effective attempt at classifying actors by situating them in political, economic and social domains that complement the classification of the actor’s role by its function. Take the same illustration above, for example, the report of SI by the media (as a key social actor) has drawn political actors’ attention. If the political actors directly promoted SI by providing financial and political resources through existing subsidy programs, both the political actors and media are “promoters”. The media is the "promoter" in the social domain and the political actors are the "promoter" in the political domain. If the political actors haven't provided any resources to SI but merely praise it in the social domain. Then, the media is the ”promoter” in the social domain as it successfully ties political actors and SI developers (providing social capital), while the political actors are the “supporters” in the social domain.

In summary, in the political domain, governmental bodies and PPP organizations are more likely to be the “promoters”; in the economic domain, upstream suppliers, farmers and workers, downstream retailers and consumers are the main “promoters”; and in the social domain, NGOs/NPOs, media, individual citizens, researchers, and local high school and university students are the main “promoters”. Considering the interdependence and multifunctionality of “supporters” and “promoters” such as governmental bodies, PPP organizations, researchers and media, it is necessary to set actors in their respective domain when drawing a line between "promoters" and "supporters". Therefore, the author argues that addressing the challenge of applying the actor classification framework (Terstriep et al., 2015) requires a dynamic and multifunctional perspective that is complemented by separate classifications in each of the diverse domains.

7.2 SI Ecosystems as Process

This section first analyzes the changes and dynamics of the three SI initiatives from a process dynamics perspective by applying the typology of SI developed by Rehfeld et al. (2018). The SI process can be divided into two phases: the formation phase and the take-off phase. In addition, the author pays specific attention to the role of past SIs embedded in the regional ecosystem in the formation and take-off of SI (Aoo, 2018). Then, the implementation of SI developers’ scaling strategies (i.e., scaling out, scaling up and scaling deep) (Riddell & Moore, 2015) during the formation and take-off phases, key actors within SI as well as actors in the economic, political, and social domains will be thoroughly discussed.

7.2.1 Formation and Take-off Dynamics

This subsection examines the process of SI from a process dynamics viewpoint, as proposed by Rehfeld et al. (2018) based on the SI-DRIVE's global mapping. Table 7-2 displays nine categories of SI, which were developed from the perspective that the dynamics of SI to "upgrade or scale-up" are contingent upon the societal context and the manner and level of interaction[123].

Table 7-2 Types of social innovations from a process dynamic perspective

	Economic domain (Competitive, market-driven)	**Social domain** (cooperation)	**Political domain** (Government-funding, hierarchy)
Niche	**Company-based** low dynamic Past SI in regional Ecosystem of S100AP	**Temporary Niche** low professionalization, limited dynamic (FP-S100AP)	**Experimental** low dynamic, could shift to "Embedded" through proper strategies
Fragmented but partially framed	**Entrepreneurial** dynamic dependents on the societal landscape of the embedded country Past SI in regional Ecosystem of all three cases (TO-KOFA, TO-TfA)	**Community-based** medium professionalization, high & stable dynamic in the long run (FP-KOFA, FP-TfA) (TO-S100AP)	**Embedded** have the potential to be a part of the welfare system, could shift to "Entrepreneurial" Past SI in regional Ecosystem of Time for Agri
Societal/Global	**Disruptive** high dynamic due to competition and digitalization in short-term	**Global Social movement** growing but still limited in scope Past SI in regional Ecosystem of KOFA	**Top-down** dynamic depends on the acceptance and the active involvement of the people addressed Past SI in regional Ecosystem of KOFA and S100AP

Note: 1. TfA is an abbreviation for Time for Agri, whereas TO represents the Take-off phase, and FP denotes the formation phase.

2. The black arrows represent shifts in the SI type, while the blue arrows indicate the application of a nudging force from the past SI in the regional ecosystems.

Source: the author modified on Rehfeld, et al. (2018)

Nine Types of SI and their dynamics

The three SI types in the middle column are the SI typologies most relevant to the three bottom-up cases selected for this study. They are "Temporary Niche", "Community-based" and "Global Social Movement". First, "Temporary Niche" SI refers to a type of temporary

[123] Three societal domains involve the economy, civil society and political domain. The mode of interaction comprises competition, cooperation and hierarchy while the intensity of interactions is determined by the degree of exchange between SI activities and the strength of the core idea contained in these activities. It is noteworthy that the SI in the real world may fall in between or move from one to another among these nine ideal types.

and localized grassroots SI driven by highly motivated individuals seeking to solve specific needs within a particular community. Once “Temporary Niche” SI takes off, it tends to transit into the "Entrepreneurial" type in the economic domain, or alternatively, the "Experimental" type in the political domain. The former follows a professional business model, aims for at least limited scaling, and is characterized by a harmonious integration of economic and social objectives, while the latter is limited in time and scope and receives transitory government support. Second, the primary objective of "Community-based" SI is to enhance the resilience and capacity of local communities through the extensive engagement of governmental players. Finally, “Global Social Movement” SI has taken root in civil societies across countries, though it is not a direct result of SI-DRIVE’s global mapping or case study activities. This type of SI is less dynamic in terms of scope but has great potential depending on how informal and flexible its interactions are.

In addition to SI types in the social domain, “Embedded” and “Top-down” types are also relevant to this study because of their unique socio-political context, such as the Public-Private-Partnerships prevailing in Japan (Kimura, 2018). “Embedded” SI refers to a category that relies on government funding and is closely integrated with a particular sector of activity, such as addressing youth unemployment and facilitating the migration of disadvantaged populations. “Top-down” type refers to SIs based on centralized political programs. These programs combine incentives, support, nudging, regulations, and prohibitions in a hierarchical manner of interactions. Noticeably, Rehfeld and his colleagues suggest that while most of the SIs examined in their study occur early and are located primarily in the top two rows of the matrix, SIs in the final row are more likely to change society. In other words, they believe that “Disruptive”, “Global Social Movement” and “Top-down” SIs have the greatest power and potential for social transformation.

Discussion on the Dynamic of SI under the Typology Model

During the course of SI process, the three cases in this study have undergone the initial phase of formation and the subsequent phase of take-off, as indicated by the transformation of their organizational structures (see Chapters Four, Five and Six, respectively, for more information). At the outset, all three SIs were primarily focused on solving specific needs within their immediate vicinity or place of residence. As their activities progressed, a broader perspective emerged and the importance of addressing societal issues was recognized. As shown by the black arrows in Table 7-2, KOFA and Time for Agri have shifted from "Community-based" type to somewhere between “Community-based” type and "Entrepreneurial" type, while S100AP has moved from "Temporary Niche" type to "Community-based" type. It is important to note that these three SI cases were originally nudged by past SIs in their formation phase. These past SI were either

"Global Social Movement" type, “Embedded” type or "Entrepreneurial" type. In addition, the combination of multiple types of past SIs in the respective regional ecosystems in these three cases played a crucial role in facilitating and boosting the take-off of SI. These past SIs encompass "Top-down", “Company-based”, “Embedded” and "Entrepreneurial" SI and generate friendly environments for the creation and development of new SI in the case studies of this thesis.

In the first case study, KOFA was established as a result of a domestic social movement (later linked to IFOAM) and referred to as a “Community-based” SI in Kagoshima Prefecture. Its formation owed much to the dedication of its founding farmer members and the accumulation of experience and social capital inside its original *Teikei* organization, namely Tsukuru Kai. In the process of take-off, KOFA has transformed from an organic farmers’ association into a legally recognized enterprise that encompasses a diverse range of businesses, including niche shops, farms, wholesale operations, internet sales, and export activities. These transformations were mainly due to the adaptation to sequentially introduced “Top-down” SIs (e.g., the organic JAS certification system), changes in the organic sector, and entrepreneurial innovations within KOFA.

Second, the Time for Agri project originated as a “Community-based” SI called Time for Wazuka, which received support from the community both financially, administratively, and in terms of social capital for community revitalization. It is interesting to note that the Wazuka Employment Promotion Council, a key supporting organization in the community, is a combination of "Top-down" and “Embedded” types. Over time, Time for Wazuka has become an integral component of the operation of the incorporated social enterprise, Time for Agri. In other words, this SI initiative has shifted from a "Community-based" type to an “Entrepreneurial” type. This change was caused by a combination of the will of SI developers, the temporary employment rules set by the past SI (i.e., the Wazuka Town Employment Promotion Council), and the economic and socio-political environments of the region (i.e., Wazuka Town and Minabe Town).

Third, S100AP, formerly an informal gathering for women entrepreneurs in the agricultural sector or a citizen-led "Temporary Niche” SI, has undergone a significant institutional and substantial change since 2018 to a "Community-based" SI overseen by a civic voluntary group. Positive changes in the socio-political environment, particularly the promotion and praise of rural women's entrepreneurship, and increasing public interest in the social responsibility of corporations (e.g., promoting gender equality), have led to the emergence of more “Top-down” and “Company-based” SIs. The take-off that occurred in the third case study was also prompted by incentives offered by the prefectural government ("Top-down”) and a local subsidiary corporation of a multinational beverage company ("Company-based").

The results of the Japanese case studies in this thesis are largely consistent with the findings of Rehfeld, et al. (2018) based on 1005 global SI cases (not including Japanese cases). Specifically, they indicated a dynamic and potential transition from a "Community-based" type of SI to an "Entrepreneurial" one. However, their dynamic and typological model failed to shed light on the mechanisms behind the dynamics, particularly the existence of links between past and emerging SIs and their roles in facilitating and boosting SI across various historical periods. This thesis draws important findings related to the considerable impact of past "Top-down," "Global Social Movement," "Company-based," "Embedded," and "Entrepreneurial" SIs on the formation and take-off of new SIs within respective regional ecosystems, as indicated by the blue arrows in Table 7-2. These findings are owing to the analysis of SI from a broader perspective of SI ecosystems and regional ecosystems developed by Aoo (2022). Furthermore, past SIs and the networks, activities and atmospheres they created are part of the regional ecosystems. Past SIs and the environments in which they were formed and embedded constitute an "endogenous regional innovation ecosystem (Sano, 2020)" or "structure" (Giddens,1984) that influences new SI. The case studies of this thesis found that both the existing regional ecosystems in which past SIs are embedded (i.e., "structure") and SI developers (i.e., "agency") together determine the dynamics of the change process of SI. Thus, both "structure" and "agency" matter in the formation and take-off of SIs, either directly providing dynamics or indirectly forming friendly environments.

In summary, this subsection thoroughly examined the development process and dynamics of the three SI cases in civil society by applying the nine-type SI model, divided by the mode of interaction as well as the economic, social and political domains. The findings can be summarized as follows: (1) the dynamics of SI development changes from temporary to long-term, and from "Community-based" to "Market-driven"; (2) past SIs in the regional ecosystem play a vital role in the development of new SIs; and (3) both "structure" and "agency" drive the development of SIs during the formation and take-off phases.

7.2.2 Drivers and Constraints in Implementation of Scaling Strategies

This subsection analyzes and discusses the main findings obtained from the case studies by applying the scaling strategies model (Riddell and Moore, 2015), i.e., scaling out, scaling up and scaling deep. As shown in Table 7-3, the analysis and discussion here concern the principle of SI, the contents of scaling strategies implemented, the key actors involved and their roles in economic, political and social activities during the formation and take-off phases of SI developers in each case study. In addition, the author highlights the facilitating and constraining factors in the process of scaling strategy implementation in each SI case. The author recognizes the challenges of drawing clear boundaries

between the implementation of three scaling strategies, as they may sometimes overlap, are interdependent, and enhance each other's social impacts. Therefore, the author pays particular attention to the relationship between the implementation of "scaling out", "scaling up" and "scaling deep" strategies as well as the power dynamics and mechanisms behind their activities.

Four further conclusions can be summarized from the discussion of this subsection: (1) there is no one-fit-all model in the SI ecosystem that generates successful SIs (although past SIs and favorable environments are important for the emergence and development of new SIs); (2) even a successful SI may have hidden difficulties and conflicts within the governing body and face unbalanced power in the SI ecosystems; (3) in the Japanese context, there are incentive mechanisms both to embrace market rationality and to compromise or deviate from the initial values and principles of SI for the pragmatic needs of SI (thus distorting the relationship between "scaling up" and scaling deep" strategies); and (4) the economic and socio-political foundations (e.g., social capital) and favorable environments are significant for the future stability and sustainability of SIs.

Table 7-3 Implemented Scaling strategies and key actors of three cases

	KOFA	Time for Agri	S100AP
Principle of SI	Promoting organic agriculture (in accordance with IFOAM's definition)	"Ennou", supporting young people to start farming or rural lives; "Sokai", escaping from urban life and occupational norms	Network and empower female farmers (especially who applies environment-friendly farming methods)
Scaling Out	Increase farmer members, develop sales channels, directly managed farms, acceptance of organic certification	Increase farmers and workers in diverse locations, coordinator system, share-house, car-rent service	Increase members, supporting system, develop diverse sale channels
	economic actors, staff, farmer members, political actors	economic actors, innovator, coordinators	economic actors, committee members
Scaling Up	advocacy to advance organic promotion law, PPP with local governments, develop new organic policy, governmental subsidies	subsidies from governments and foundations, PPP with local governments and NPOs involved governments	PPP with pref. government, subsidies from governments, developing new public project
	two representative directors and certain farmer members, political actors	Founder of Time for Agri, political actors	committee members, political actors

	KOFA	Time for Agri	S100AP
Scaling Deep	Issues & publication, workshops & sessions, producer-consumer communication, teaching technics overseas, collaboration with organic civic organizations, interviews, trainee and internship system	farmer selection mechanism, communication as friends, idea explanation, telling stories or reflections, lectures in universities, farming events, interviews	lectures in high schools, consumer-relation-building activities, telling stories, interviews, farm visiting, workshops & sessions, internship system
	two representative directors, all staff, farmer members, political actors (modified idea), social actors, economic actors (sometimes constrained idea), media	innovator, economic actors, social actors, political actors, media (codified idea)	economic actors, social actors, political actors (compromised idea), some farmer members, media

Source: Summarized by Author.

Scaling Out

The take-off phase of SI's development is signaled by a change in the organization's nature and structure, which primarily involves the active implementation of “scaling out" strategies. Findings indicate that the implementation of "scaling out" strategies mostly resulted in the increase of revenue-generating economic activities of SI developers. The introduction of these novel economic activities, for example, expanding sales channels and sources of contributions from outside the SI developer organizations, has not only brought about enduring structural modifications, but has also facilitated changes within the SI ecosystem. Because these economic activities provide long-term and stable sources of income, they have increased the potential for SI self-sufficiency and stability. Moreover, the visible successful results of these economic activities are more likely to be noticed and praised by intellectual, governmental and industrial actors, enhancing SI’s reputation and serving as a basis for its further development in the socio-political domain. Nevertheless, it is essential to recognize that the tangible outcomes of "scaling out" strategies merely provide SI with some opportunities to engage in the implementation of "scaling up" strategies exclusively when it expands to a large scale and elicits significant economic, social and cultural influence. The scale and influence generated by SI's contributions to one specific sector or region usually should increase to the extent that governmental actors or mainstream media can notice and recognize. This could be achieved through the proliferation of multi-sectoral “alliances” between both public and private actors (Aoo, 2018). The key actors involved in the implementation of "scaling out" strategies are SI developers, including founders, core members and employees, or members of the committees of SI governing bodies. The main actors involved in these economic activities

within the SI ecosystems are the economic actors identified in the previous sections (see Table 7-3).

While the primary goal of SI's "scaling out" strategies is social in nature, aiming to fulfill the needs of stakeholders and address social problems, it is important to note that its day-to-day operations differ from the volunteer or non-profit activities often seen in civil society. Instead, all of the mature and stable SI operating organizations examined in this thesis tend to engage in profit-driven economic activities in Japanese society. These economic activities are characterized by following the market-oriented rationality of pursuing profits and engaging in competition within the capitalist framework. Consequently, these SI developers and SI governing bodies encounter competitive forces emanating from other enterprises within the same sector, for example, the (organic) agricultural products market or the rural labor market. Unfortunately, under such market-oriented conditions, it is often constrained or even impossible to disseminate the core ideas and principles of SI, which is what distinguishes SI from other businesses in the first place, to remote actors through “scaling out” activities.

Briefly, based on the findings obtained from the three case studies, the success of the implementation of "scaling out" strategies is a result of SI's adoption of competitive business models (including significant efforts of employees, innovative products, effective management, and stable routine business), as well as favorable socio-economic environment, entrepreneurship, leadership and well-developed social capital.

Scaling Up

The key actors involved in the implementation of “scaling up” strategies are, of course, political actors. The findings of the three case studies illustrate three characteristics of the implementation process of different "scaling up" strategies. To begin with, there is an informal and passive nature to the interactions between SI developers or SI operational organizations on one hand and governmental bodies and administrative officials on the other (in the case of Time for Agri and S100AP after take-off). Second, a temporary nature is exhibited in the involvement of the three SIs in government-led initiatives, especially in their engagement with prefectural or higher levels of government. The third characteristic is their proactive but cautious approach towards subsidies (in the case of S100AP and Time for Agri) and their limited attempts at political advocacy (in the case of S100AP in its early stage and KOFA).

In addition, the author found that the interpretation of SI principles can easily be variated and modified in the process of implementing "scaling up" strategies. These variations and modifications are influenced by a combination of limited representation, proactive intention and passive acceptance. First, the successful implementation of a "scaling up" strategy is mostly dependent on certain key individuals rather than on the

collective involvement of actors within the organization, as seen in all three cases. The presence of diverse interpretations of the fundamental principles of SI (shown in Table 7-3) throughout SI organizations poses a significant challenge. In the case of KOFA, for example, some KOFA employees' understanding of organic agriculture differs from KOFA's interpretation and daily operations. In general, governmental and administrative officers are less likely to recognize such diversity and differences of opinion within SI operational organizations.

Second, in their engagement with actors inside the political system, the representation of SI principles tends to be actively modified by SI developers in order to align with their pragmatic objectives. For example, KOFA has embraced the Organic JAS certification system, which seems to be inconsistent with the *Teikei* principles. Also, S100AP members sometimes feel both reluctant and obligated to participate in government-led activities in big cities like Tokyo, where they expect to attain some social capital. Such adjustments in the interpretation of principles and associated actions can often be inconsistent with the original aims of SI, which the author calls "compromise" or "deviation". This finding is similar to what Westley (2017, pp. 242-243) termed as "amendment, distortion or hijacking" of SI principles in response to local contexts and the underlying power relations.

Third, the passive acceptance of the modified principle by SI developers or operational organizations can be interpreted in two ways. One interpretation is that influential actors within the regime reconfigure and incorporate the intended message of SI into their own established policy framework. In addition to governments, examples of such influential actors include media, corporations and foundations. For instance, although SI emphasizes the substance of its principles and goals, official records and reports mostly contain only "objective" empirical data and "facts" that align with the narrative desired by the media and governments. Therefore, the content of the SI principle is subject to interpretations by those influential actors for their own sake. Another interpretation is that only favorable governments can achieve success in the "scaling up", while SI developers who are reluctant to modify their objectives tend to fail. For example, Time for Agri failed to manage a public hot-spring hotel in Minabe Town because the founder's principle of supporting "Ennou" activities deviated from the town's expectation of tourism development. The underlying rationale for such a selection mechanism is that governments are inclined to promote neo-liberal policies and choose a project implementation strategy that follows time-bound plans, using "budget-based" of "single fiscal year" techniques. This approach leaves little to no leeway for subsidy applicants to experiment or modify their proposals (Hirai, 2022, p.95). Nevertheless, incorporating a trial-and-error approach is of utmost importance for success in the field of SI (Neumeier, 2017). This administrative rationale restricts access to and use of public

resources by actors who are unable to provide precise numerical objectives and anticipated results. Naturally, a dynamism may be observed between “passive acceptance” and “proactive compromise”. As SIs undergo a learning process through a series of experiences, both successful and unsuccessful, they gradually increase their level of knowledge about regime actors’ preferences. To effectively implement "scaling up" strategies, such as applying for subsidies, SIs learn to make concessions on certain principles. As a result, the experience of “passive acceptance” may motivate SIs to participate in “proactive compromise”.

Hence, practically, the most significant determinants for the effective implementation of "scaling up" strategies are SI’s excellent socio-economic performance, public recognition and influence, accumulated social capital, and a favorable socio-political environment for new initiatives. In addition, it is also significant to “proactively compromise” and “strategically deviate” from SI's initial principles and to prioritize the requirements of influential political actors. These determinants are exactly the constraints for bottom-up SI to be transformative in the political domain as well. The findings from the three case studies and discussions indicate that the constraints on the implementation of transformative “scaling up” strategies are: (1) the prevailing neo-liberal political framework; (2) the unequal power relations between civic actors and political actors; and (3) the absence of accessible means for political advocacy and financial support systems in civil society.

Based on the theoretical framework proposed by the Young Foundation (2012), Kimura (2015) and Terstriep et al. (2015), it is assumed that there is a progressive ordered connection between the concepts of "scaling out," "scaling up," and "scaling deep." The concept of "scaling out" is often considered a necessary condition for achieving "scaling up," while "scaling deep" is considered the final stage. This is because social innovation is a transformative process that alters values by modifying social structures and fostering more stakeholder participation in order to address societal concerns (Kimura, 2015, p.13). The results of this study are consistent with the notion that the concept of "scaling out" is a prerequisite for achieving "scaling up". Differently, in the Japanese context, the need for "scaling up" is not a prerequisite for "scaling deep."A predicament arises when the culture advocated by SI is not widely accepted by the majority of stakeholders. "Scaling up" efforts often become ineffective, as governments are compelled to consider and set objectives according to the opinions of the majority, which often consists of individuals with significant economic powers and social status. In this context, the concept of SI is limited to expanding its influence externally and internally until an opportune moment arises to "scale up" its operations. This “scaling up” may occur either when a significant portion of the population adopts SI ideology or when

SI itself attains sufficient power, making it impossible to ignore its objectives. The implementation of "scaling deep" strategies is crucial in both scenarios.

The examination of the implementation of “scaling deep” strategies revealed the following five points. First, the "scaling deep" process involves and activates a diverse set of participants, including insiders of SI operational organizations and domestic and international actors in the social, political, and economic domains of the SI ecosystem. Second, it is important to note that the majority of organization and participation in "scaling deep" activities is voluntary in nature and is not primarily motivated by economic considerations, despite the fact that in some cases it brings some economic benefits. Third, in recent years, services provided through the "scaling deep" process have begun to receive financial subsidies from governmental agencies, such as internship programs offered by KOFA and agricultural excursions arranged by S100AP. Fourth in contrast to the difficulties in effectively communicating SI principles to all consumers and participants in the implementation of the "scaling out" strategy, SI developers and operational organizations, through personal interactions and various social media platforms, are able to disseminate core SI concepts easily. Finally, it is worth noting that the implementation of "scaling deep" initiatives is often overlooked by influential administrative, economic, and academic entities, despite their great potential to effectively disseminate SI principles on a large scale and with substantial impact.

Adding to the findings from the three case studies, the key factors that contribute to the effective implementation of “scaling deep” strategies are based on the widespread use of social media platforms, existing favorable social norms, accumulated social capital, and the beneficial influence of past SIs in the regional ecosystem.

To summarize this subsection, the key factors for successful implementations of "scaling out", “scaling up,” and “scaling deep” strategies are, respectively, SI's adoption of competitive business models, favorable socio-economic environments, entrepreneurship, leadership and well-cultivated social capital; SI’s great socio-economic performance, public recognition and influence, accumulated social capital, a favorable socio-political environment for new initiatives, “proactive compromise” and “strategic deviation” from SI's initial principles; active use of social media platforms, social norms favorable to SI’s principles, accumulated social capital, and the beneficial influence of past SIs in the regional ecosystem. On the contrary, the main constraints for bottom-up SI to bring about transformations are overreliance on market rationality and severe competition in the market; prevailing neo-liberal political framework, unequal power dynamics between civil actors and political actors, lack of accessible means for political advocacy and financial support systems in civil society, inconsistency of SI principles with current socio-political norms, lack of funding for and know-how of dissemination such as the use of social media platforms.

Chapter 8: Conclusion

This chapter is organized into three sections. The first section presents a brief summary of the thesis. The second section concludes the thesis by discussing the drivers and constraints of the potential for bottom-up SI in rural Japan, as well as the possible contributions this study may offer to the existing body of knowledge on SI theory. Finally, this chapter suggests policy implications for agricultural and rural development in Japan and potential areas for further research.

8.1 Summary of the Study

Since a boom in Social Innovation (SI) studies around 2015, close collaboration between academic research and policy processes has led to remarkable progress in its theoretical and empirical studies (e.g., Mulgan et al., 2007; Phills et al., 2008; Westley & Antadze, 2010, Moulaert et al., 2013). SI is believed to bring about fundamental social transformation. Even in the fields of rural development and community revitalization, attempts have been made to integrate or substitute SI theory for a mainstream neo-endogenous perspective (Neumeier, 2012; Bock, 2016). Against this backdrop, this study intended to examine the organic link between micro-level SI and macro-level social transformation by applying advanced Western SI frameworks to Japanese SI initiatives. By further refining the theme and examining SI ecosystems and scaling strategies, this thesis investigated the potential of bottom-up SI for social transformation in the context of rural Japan. Three cases were chosen for this purpose: 1) KOFA: (The Kagoshima Organic Farmers Association: かごしま有機生産組合), 2) Time for Agri (アグリナジカン), and 3) S100AP (The Shiga 100 Agri Girls Project: しが農業女子 100 人プロジェクト). With regard to data collection, four qualitative methods were employed: (1) unstructured and semi-structured interviews (31 interviews in total); (2) participant observation (44.5 days in total); (3) questionnaire survey; and (4) document and media analysis. This thesis elaborated a theoretical and analytical framework to capture the dynamic process of SI ecosystems (see Figure 3-2) by incorporating the perspectives of Terstriep et al. (2015), Sano (2020), Aoo (2022), and Riddell and Moore (2015), which are distinct from the archaic narrative of "merely heroic entrepreneur (and other involved actors) revitalizing remote communities" in Japanese SI studies. The analytical framework includes three progressive steps (see Figure 3-2) aimed at understanding the interaction between institutional order, multi-level governance, actors, networks, and the facilitation or hindrance of scaling strategy implementation. A summary of the findings in Chapters 4, 5 and 6 (Objectives 1 and 2) and the results obtained in Chapter 7 (Objective 3) are presented in the table in the Appendix.

8.2 Conclusion

In conclusion, the author argues that the potential of bottom-up SI in rural development in Japan is determined by both “structure” and “agency” (see Figure 8-1). In the process of development, SIs face enormous incentives and pressures due to the "structure" shaped by the institutional and material infrastructures, social norms, public narratives, actions and networks of diverse actors, and histories and cultural legacies. It includes capitalism rationale, neo-liberal governance systems, unequal power dynamics between civic and political actors, the absence of accessible means for political advocacy and financial support systems within civil society, strong "success" and “heroic leader” narratives, prevailing norms and particularly rural norms, and distinct economic socio-political environments in different regions and sectors; and other actors governed by these rationales. Regarding “agency”, SI developers’ open-minded attitude; their acquisition of external knowledge, ideas, social capital and resources; leadership, entrepreneurship and "nomadic" lifestyle; reflections on their lifestyle; and their preference for environmental-friendly and ethical farming practices are factors that may contribute to the emergence and further development of SI. At the same time, SI developers and operational organizations may also exert their “agency” for transformation through the adoption of competitive business models; “proactive compromise” and “strategic deviation”, and the use of technology (i.e., social media platforms), in addition to taking advantage of existing favorable social norms, accumulated social capital, and the beneficial influence of past SIs in the regional ecosystem.

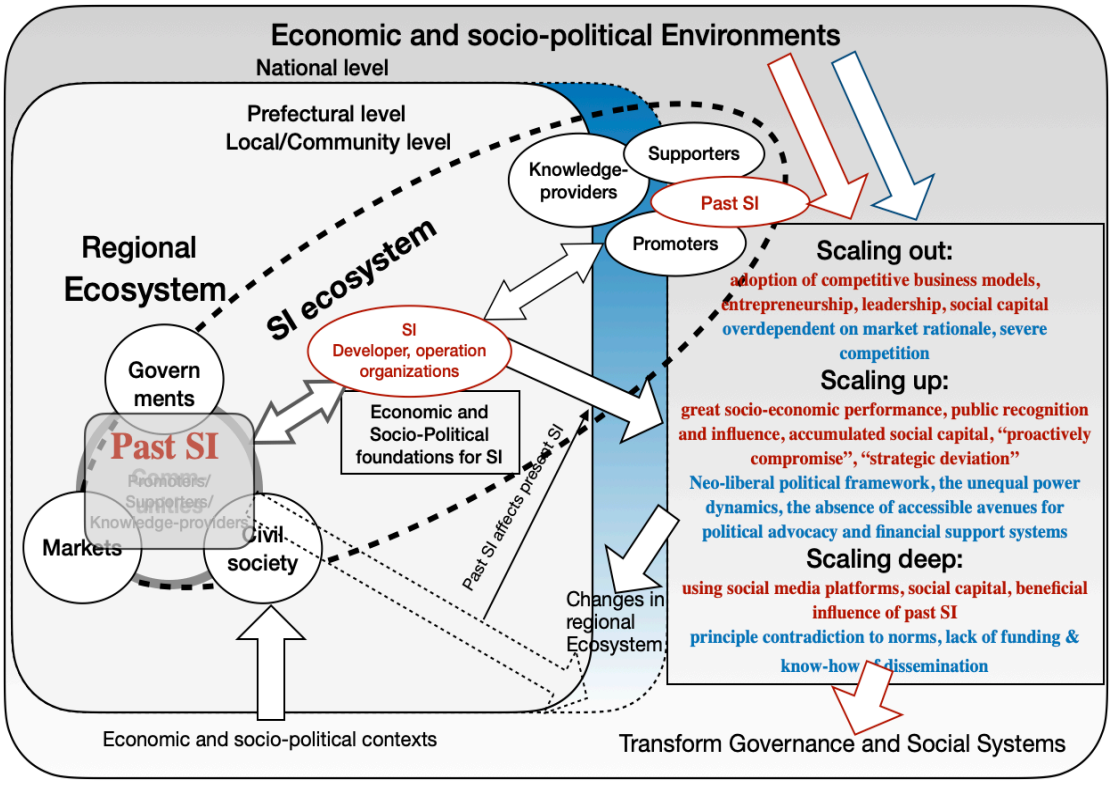

Figure 8-1 The SI dynamic process ecosystem framework showing the Potential of SI for Transformation

Note: words or arrows in red mark the facilitating factors and forces while the blue refers to the constraints.

Source: Elaborated by Author.

Theoretically, the findings of this study demonstrate that adopting a dynamic and multi-layered ecosystem approach focusing on both the "macro" and "micro" levels may provide valuable and comprehensive insights into SI development and its potential for social transformation. This approach allows for a more nuanced understanding of the phenomenon, including both the micro (individuals and individual organizations) and macro (countries and societies) levels of analysis, as well as a shift from individual case-based observations to theory-based generalizations. For example, first, a micro-level analysis of "agency" revealed that SI has a primary motivation to sustain itself and then transform the current society. The practice of such motivations takes the form of "scaling out", "scaling up" and "scaling deep" of SI principles in markets, governments and civil society. Although SI scholars have designed SIs with the expectation that will bring about significant transformation, this study has found that often bottom-up SIs have not had the ambition to transform society as a whole. However, the transformative potential of SIs

certainly increases over the course of its practice. They started out as temporary community-based SIs and gradually extended their engagements in the economic political and social domains to address larger and more general social problems and enhance well-being. Second, by linking the "micro" to the "macro", the author argues that SI and its ecosystem are a single, inseparable cohesion. As a result of SI's scaling activities, its ecosystem comprising diverse economic, political and social actors has been formed and sustained. In other words, the ecosystem emerges from a combination of efforts by SI developers and SI operational organizations, and pressures and incentives from the surrounding economic and socio-political environments, which at the same time sustain and fuel the further development of SI. Third, because an SI ecosystem also depends on the history and contexts determined by the past "structure" and "agency", SI has a case-by-case nature across a broad temporal spectrum. In other words, SI ecosystems differ from one context to another, despite having common grounds. In addition, this study transcends business- and technology-oriented innovations and defines SI explicitly in line with the latest frontiers of international SI theory. Also, the case selection and the process of analysis focused on the diversity of SI, which is often neglected in Japanese SI scholarship (Aoo, 2018).

In summary, this empirical and theoretical investigation is a first attempt to (1) bring Japanese SI studies into contact with Western research trends by applying the latest SI theoretical lenses and frameworks to Japanese case studies; (2) propose a modified analytical framework to re-embed SI in society as a whole by taking a balance between micro and macro as well as between case-oriented and theory-oriented approaches; and (3) integrate SI theory into Japanese rural development studies as an overarching theory, rather than just an analytical tool or a complementary concept to existing approaches.

8.3 Policy implications, Limitations and Future Research

Social innovation (SI) has significant potential to transform contemporary society and foster regeneration and inclusivity. Nevertheless, the efficacy of a single bottom-up SI in promoting rural development and community revitalization is severely restricted and cannot be considered a comprehensive solution. This is mainly due to the fact that SI is generated and embedded within its own ecosystem. This ecosystem encompasses several layers, including the economic and socio-political environments, various players, and past social innovations. It is therefore advisable to refrain from using a one-size-fits-all strategy, and instead, explore different regional approaches that could be used to promote the emergence and longevity of supportive environments for SI. This thesis offers insights into regional development, particularly in rural areas of Japan, and proposes five policy implications based on the research findings.

First, it is recommended that the various levels of government enhance administrative support at their respective levels, in addition to providing financial assistance and implementing public-private partnership (PPP) projects. This can be achieved through establishing a cross-sectional and comprehensive social innovation entity within the administrative bodies in charge, as well as appointing specialized experts to assist in the incubation of socially innovative initiatives in local communities in need of assistance. Administrative assistance requires a thorough understanding of the principles and concepts underlying the field of SI. It should not be perceived as limited to the successful implementation of bottom-up SI initiatives that deliver tangible outcomes, which are often measured by quantitative data. Governments should prioritize allocating more resources to investigating the qualitative processes and outcomes of SI. Given the current limited human resources and budgets of local communities, it is the duty of the central government, which has more resources, to address this issue.

Second, several scholars in the field of SI emphasize the need to form an "alliance" among various stakeholders in terms of both breadth and depth to exert its transformative power (Aoo, 2018). Likewise, this study found that social capital, in the forms of bridging, bonding and linking, has a significant impact on the initial stages and subsequent development of SI. The issue at hand pertains to the approach of establishing an "alliance." The “Agri-girls Project (S100AP)”, described in Chapter 6, is an excellent early initiative by the central government to provide a platform for direct collaboration between the business and non-profit sectors in order to foster innovative activities and products (Takachi, 2020). This initiative itself is a government-led SI (Top-down SI), which has experienced a transition from an "Experimental" to an "Embedded" type of SI since 2013. There is a need to further encourage such projects led by diverse stakeholders.

Third, individuals involved in the three case studies as SI developers (most of whom are "I-turners" or "U-turners") possess a high degree of education and have acquired valuable external resources, knowledge, and social capital through their experiences of studying and working in different places. Hence, there is potential for future social innovation initiatives to develop if educational institutions set up courses that foster innovative thinking among students and encourage their engagement with social concerns. Furthermore, the level of involvement of intellectual organizations, civic society, governments and enterprises in SI in Japan has always lagged behind that of schools in the United States and Europe. In this context, it is essential to invest more public attention and funding in the field of social innovation studies and practice.

Fourth, as the case of the town of Wazuka described in Chapter 5 showed, fostering a local government to have an open-minded approach toward new projects is particularly important for marginalized and geographically isolated communities. Nevertheless, it is

crucial to recognize that replicating a "successful" SI model elsewhere does not ensure equivalent success within a community. It is vital that priority is given to fostering a supportive regional environment for underprivileged communities. Furthermore, the factors of time and chance play a significant role in the successful establishment and initiation of SIs. Just because a single SI does not immediately result in resuscitation does not imply that it is a complete failure. Analysis of three distinct case studies shows that prior SIs within a given area have significantly contributed to stimulating subsequent efforts and strengthening the regional ecosystems. Thus, a certain leeway and tolerance for trial and error is indispensable. Local governments should first of all make an effort to mobilize more involvement, identity and efforts of local citizens to understand and implement SI.

Lastly, crises and changes provide possibilities for transformative processes to occur, ranging from the individual level to the broader societal level. There are a multitude of complex challenges in rural Japan, commonly referred to as “wicked problems”. These challenges encompass various aspects such as demographic shifts, gender issues, and marginalization and exclusion. These issues are further exacerbated by the prevailing climate of neo-liberalism, which has a significant impact on rural areas. Additionally, increasing frequency of socio-economic and environmental crises on a global scale has added to the urgency of addressing these issues. Consequently, the present moment is at a critical juncture requiring transformative actions. It is essential to have a comprehensive political advocacy channel that enable effective communication between civil society and the multi-layered governance structures in Japanese society. The is the first action to address the imbalances in power dynamics that exist between governmental entities, businesses, and civil society. The transformation towards a more equitable and inclusive society is contingent upon the explicit amplification of the voices of excluded and disadvantaged groups.

In closing, it is important to recognize the limitations of this study and to consider possibilities for further research. This thesis has focused primarily on single SIs and their established SI ecosystems. It managed to present the crucial role of the "agency" employed by “SI developers”, operational organizations, and “promoters” and “supporters” for SI initiatives to scale out, scale up and scale deep. It also shed light on how the initiative itself can be modified due to changes in the underlying structure and interactions among different stakeholders. Despite the specific focus, scope, and selection of case studies, this thesis has some limitations and unresolved problems. One of the main considerations is the interrelationships and interactions between different SIs in an ecosystem and the resulting transformations. Subsequent research efforts may lead to a more comprehensive examination of many SIs (SI populations) within a given geographical ecosystem, for example, using a historical lens to explore the

interrelationships between prior and contemporary SIs (e.g., Aoo, 2022). Second, the perspective adopted in this thesis, which is focused on the SI framework, has challenges in establishing a definitive ecosystem limit, as it is difficult to determine the range of populations covered by "scale deep" activities. In addition, the concept of "scale deep" seeks to transform the values of society and the cognitive frameworks of individuals, making it hard to perceive and evaluate. Future research should include a long-term, actor-oriented qualitative examination, focusing primarily on participant's motivations and the mechanism by which their mindsets are changed, in order to improve the theoretical framework.

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Appendix. Synopsis of findings of case studies in Chapters 4-6

Step/Case	KOFA	Time for Agri	S100AP
Step 1: what			
Established year	1984	2014	2013
Take-off year	1991	2019	2018
Current Legal form	Incorporated farmers' association	Social enterprise	Voluntary civic society group
Principle of SI	Promoting organic agriculture (in accordance with IFOAM's definition)	"Ennou", supporting young people to start farming or rural lives; "Sokai", escaping from urban life and occupational norms	Network and empower female farmers (especially who applies environment-friendly farming methods)
Associated Law	Food, Agriculture and Rural Areas Basic Act (Act No. 106 of 1999), Act on the Creation of New Enterprises Business Utilizing Local Resources and Promoting the Utilization of Local Agricultural, Forestry, and Fishery Products (Act No. 67 of 2010), Act for Fertility Society, Green Food System Law (Act No. 37 of 2022), Act for Facilitating New Business Activities of Small and Medium-sized Enterprises (Act No. 18 of 1999).		
Social Environment	organic farmer is weirdo/social activist→ pioneer; diverse definition of organic agriculture	freeter/freelance(negative) →entrepreneur/human resource (U-turn & I-turn)	"A woman can't be a farmer" →Active Agri-girls
Economic Environment	stagnation; organic certification promoting commercialization	decline/lack of labor & successor/promoting external human resource & entrepreneurship	lack of labor& successor/promoting young female farmers & entrepreneurship
Political Environment	Act on Promotion of Organic Agriculture (Act No. 112 of 2006), Japanese Agricultural Standards (Act No. 175 of 1950), JAS Law Article 19-15, Strategy for Sustainable Food Systems (MIDORI), Kagoshima prefecture organic agriculture promotion plan, Aira city and Minamitane town organic agriculture promotion plan.	Population Creation, regional revitalization, migration support and agricultural employment support program, Wazuka Town, Minabe Town and Abu Town Comprehensive Plan	Basic Act for a Gender-Equal Society (Act No. 78 of 1999), Partner Shiga Plan 2025, Basic Plan for Agriculture, Forestry and Fisheries of Shiga, 2021-2025), Agri-girl project (MAFF)
Actors	1)organic farmer members, 2) partners and retailers, 3) governmental bodies, 4) PPP organizations, 5) NGOs/NPOs and others	1) coordinators, 2) producing entities, 3) farming workers, 4) governmental bodies, 5) PPP organizations, 6) intermediaries (JA staff, social enterprise, recruit agencies, media, university professors)	1) farmer members, 2) supporting members, 3) retailers, alternative markets and consumers, 4) governmental bodies, 5) PPP organizations, NGOs/NPOs and others, 6) media

Step 2: how			
(1) Scaling Out	Increase farmer members, develop sales channels, directly managed farms, acceptance of organic certification	Increase farmers and workers in diverse locations, coordinator system, share-house, car-rent service	Increase members, supporting system, develop diverse sale channels
	organic farmer members, partners and retailers, governmental bodies, PPP organizations, KOFA staff	coordinators, producing entities, farming workers, SI founder	farmer members, supporting members, retailers, alternative markets and consumers, committee members of S100AP
(2) Scaling Up	advocacy to advance organic promotion law, PPP with local governments, develop new organic policy, governmental subsidies	subsidies from governments and foundations, PPP with local governments and NPOs involved governments	PPP with pref. government, subsidies from governments, developing new public project
	two representative directors and certain farmer members, governmental bodies, PPP organizations	Founder of Time for Agri, governmental bodies, PPP organizations	committee members, PPP organizations, governmental bodies
(3) Scaling Deep	Issues & publication, workshops & sessions, producer-consumer communication, teaching technics overseas, collaboration with organic civic organizations, interviews, trainee and internship system	farmer selection mechanism, communication as friends, idea explanation, telling stories or reflections, lectures in universities, farming events, interviews	lectures in high schools, consumer-relation-building activities, telling stories, interviews, farm visiting, workshops & sessions, internship system
	two representative directors, all staff, farmer members, governmental bodies and PPP organizations (modified idea), NPO/NGOs, partners and retailers, consumers (sometimes constrained idea), media	the founder, coordinators, producing entities, farming workers, governmental bodies, PPP organizations, iJA staff, social enterprise, recruit agencies, media, university professors, media (codified idea)	farmer members, supporting members, retailers, alternative markets and consumers, governmental bodies and PPP organizations (compromised idea), NGOs/NPOs, media
Private Foundations	None	Wakayama Industry Promotion Foundation, Toyota Foundation	Kirin Kizuna Project
Received Award(s)	2018 Kagoshima Specialty Products Association President's Award. 2019 MAFF Award. 2022 Minister of the Environment Award.	None	2017 The 7th Regional Revitalization Kinki Region Grand Prize. 2021 Women's Challenge Support Award.
Actors/ social media platform celebrating SI	Governmental bodies, PPP organizations, intellectual organizations and media	governmental bodies, PPP organizations, intellectual organizations and media	Governmental bodies, PPP organizations, intellectual organizations and media
	Instagram, official website, NPOs' Youtube channels, Line	Podcast, Youtube, Facebook, official website, Line, Instagram	Instagram, Facebook, official website, Line

Step 3: why			
Dynamic	community-based SI→ Entrepreneurial SI	community-based SI→ Entrepreneurial SI	Temporary niche SI→ community-based SI
Scaling Out	**Facilitations:** SI's adoption of competitive business models, favorable socio-economic environments, entrepreneurship, leadership and well-cultivated social capital/ **hindrances:** overdependent on market rationale and severe competition in the markets		
Scaling Up	**Facilitations:** SI's great socio-economic performance, public recognition and influence, and accumulated social capital, a favorable socio-political environment for new initiatives, "proactively compromise", "strategic deviation" from SI's initial principle / **hindrances:** the prevailing neo-liberal political framework, the unequal power dynamics between civic actors and political actors, and the absence of accessible avenues for political advocacy and financial support systems in civil society		
Scaling Deep	**Facilitations:** positive application of social media platforms, favorable social norms for SI's principle, the accumulated social capital, and the beneficial influence of previous SI in the regional ecosystem/ **hindrances:** SI principle's contradiction with the current socio-political norms, lack of funding and know-how of dissemination such as application of social media platforms.		

Source: elaborated by the author.