Multi-Level Governance of Agricultural Land in Japan:

Farmers' Perspectives and Responses to Farmland Banking

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ABSTRACT

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This dissertation examines the emergence and implementation of a new intermediary mechanism of farmland tenancy in Japan with a focus on farmers' perspectives. Japan's government introduced the Farmland Bank (FB) program in 2014 in an attempt to avoid further farmland abandonment and revitalize the farming industry. By design, the program gives more power to prefectural authorities to accommodate new actors and resources in tenancy arrangements even without farmland owners' consent so as to expedite farmland aggregation and generate better economies of scale. This is a major turning point since the postwar agrarian reform where owners have been given a primary decision-making role in private farmland use. The research draws on semi-structured interviews with farmers, government officials and experts, which were conducted intermittently between 2016 and 2018. By taking a multi-level governance approach, the study shows a change in the farmland governance model from the centralized control of individual property to the decentralized, multi-level coordination for collective tenancy arrangements, to which farmers actively contributed along with the interlocking institutional transitions of farming families and villages. With the decline in the life security function of farmland, they have increasingly disengaged from farming and allowed for political and conceptual shifts of farmland from owner-oriented to user-driven and from family property to the commons of the society. The study finds that despite a massive budget injection, the FB program

has only marginally facilitated farmland aggregation. Yet, the case study of two communities reveals that the program has been driving a ‘soft’ coercion of farmers’ land-use practices via economic rationality. Moreover, it has disconnected owners from farmland but failed to enshrine tenants’ commitment to long-term farmland management. Complementary attention to subjective, intangible and cultural aspects of farmland would help to avoid possible one-time profit seeking land-use.

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List of Abbreviations

ABA	Agricultural Basic Act (*Nogyo kihon ho*)
ACA	Agricultural Committee Act (Act on Agricultural Commission, etc. : *Nogyo iinkai to ni kansuru horitsu*)
ACOA	Agricultural Co-operatives Act (*Nogyo kyodo kumiai ho*)
ADCOM	Administrative Committees
AID	Agricultural Infrastructural Division
ALA	Agricultural Land Act (*Nochi-ho*)
ALHR	Agricultural Land Holding Rationalization (*Nochi-hoyu gorika sokushin* or *Nochi-hoyu gorika*)
ALMA	Agricultural Land Management Agency (*Nochi-kanri jigyo-dan*)
ALUI	Agricultural Land Use Improvement (*Noyo-chi riyo kaizen*)
ALUP	Agricultural Land Use Promotion (*Noyo-chi riyo zoushin*)
APD	Agricultural Policy Division
ASI	Agricultural Structure Improvement (*Nogyo kozo kaizen*)
CAMP	Community Agricultural Mater Plan (*Hito nochi puran*)
CAP	Common Agricultural Policy
CEFP	Council on Economic and Fiscal Policy (*Keizai zaisei shimon kaigi*)
CIC	Council for Industrial Competitiveness (*Sangyo kyosoryoku kaigi*)
CPA	City Planning Act (*Toshi keikaku ho*)
CPRFAFF	Council to Promote the Revitalization of Food, Agriculture, Forestry, and Fisheries (*Shoku to no-rin-gyo-gyo no saisei kaigi*)
DAFF	Department of Agriculture, Forestry and Fisheries
DPJ	Democratic Party of Japan (*Minshu-to*)
DPS	Democratic Socialist Party (*Minshu shakai-to*)
DPSHMA	Direct Payment System to Hilly and Mountainous Areas (*Chu-san-kan chiiki to chokusetsu shiharai seido*)
EAPR Act	Act on Establishment of Agricultural Promotion Regions (*Nogyo shinko chiiki no seibi ni kansuru horisu — aka. No-shin ho*)

EU	European Union
FAO	Food and Agriculture Organization
FB	Farmland Bank (Farmland Interim Management Agencies: *Nochi chukan kanri kiko*)
FMC	Farm Management Commission (*Nogyo-keiei juitaku*)
FUAF	Farmland Use Accumulation Facilitation (*Nochi riyo shuseki enkatsuka*)
GATT	General Agreement on Tariffs and Trade
GHQ	Supreme Commander for the Allied Powers in the General Headquarters
GIAHS	Globally Important Agricultural Heritage Systems
HCRVAFF	Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries (*No-rin-suisan-gyo chiiki no katsuryoku sozo honbu*)
HJER	Headquarters for Japan's Economic Revitalization (*Nihon keizai saisei honbu*)
HPCAFF	Headquarters for Promoting Competitive Agriculture, Forestry and Fisheries (*Seme-no no-rin-suisan-gyo suishin honbu*)
HRFAFF	Headquarters for the Revitalization of Food, Agriculture, Forestry, and Fisheries (*Shoku to no-rin-gyogyo no saisei suishin honbu*)
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
JA	Japan Agricultural Cooperatives (*Nokyo*)
KPI	Key Performance Indicator
LDP	Liberal Democratic Party (*Jiyu minshu-to*)
MA	Millennium Ecosystem Assessment
MAF	Ministry of Agriculture and Forestry
MAFF	Ministry of Agriculture, Forestry and Fisheries
MLG	Multi-Level Governance
INATO	Ishikawa Agricultural Total Support Organization
MMD	Multimember District
MMM	Mixed-Member Majoritarian
New Basic Act	Food, Agriculture and Rural Areas Basic Act

New Basic Plan	Basic Plan for Food, Agriculture and Rural Areas (*Shokuryo nogyo noson kihon keikaku*)
New Policy	Basic Direction of New Policies for Food, Agriculture and Rural Areas
NHDA	District N Hometown Development Association
NI Cooperative	Village NI Agricultural Machine Use Cooperative
NKP	New Komei Party (*Komei-to*)
OECD	Organisation for Economic Co-operation and Development
OPM	Office of Prime Minister (*Shusho kantei*)
PIAMF Act	Act on Promotion of Improvement of Agricultural Management Foundation (*Nogyo keiei kiban kyoka sokushin ho*)
PR	Proportional Representation
RRC	Regulatory Reform Council (*Kisei kaikaku kaigi*)
SCAPIN	Supreme Commander for the Allied Powers Directives to the Japanese Government
SDPJ	Social Democratic Party of Japan (*Nihon shakai-to*)
SMD	Single-Member District
SNTV	Single Nontransferable Vote
TPP	Trans-Pacific Partnership
UR	Uruguay Round
UREP	Use Right Establishment Promotion (*Riyo-ken settei sokushin*)
WTO	World Trade Organization
2011 Action Plan	Basic Policy and Action Plan of 2011 (Basic Policy and Action Plan for the Revitalization of Our Country's Food and Agriculture, Forestry and Fishery Industries: *Waga-kuni no shoku to no-rin-gyogyo no saisei no tameno kihon hoshin kodo keikaku*)

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Chapter 1: Introduction

Worldwide, farmland abandonment has grown significantly since the 1950s and cropland expansion has slowed (Cramer, Hobbs, and Standish 2008; Ramankutty et al. 2018). These trends involve abandonment somewhere and intensification elsewhere to keep up with the global food demand (van der Zanden et al. 2017; Lambin and Meyfroidt 2011). Farmland abandonment brings both opportunities and threats. Opportunities include carbon sequestration, regeneration of native species, and increase of certain ecosystems if it is passively managed for natural succession or actively revegetated, while allowing for urbanization and cultivation of biofuel crops if it is exploited (Queiroz et al. 2014; Munroe et al. 2013). Negative consequences involve biodiversity loss, reduction of water provision, increase of fire frequency and intensity, desertification, and loss of cultural and aesthetic values (Rey Benayas et al. 2007).

Agricultural intensification has mostly led to environmental degradation and poses a threat to agricultural stability. At the expense of an increase in productivity, negative ecological impacts include biodiversity loss, land and water contamination, soil erosion, animal welfare decline, and damage of nutrient cycling (Donald et al. 2006; Garnett et al. 2013). Ecological degradation can also affect human health and may result in more fragile production systems when the systems reach their limits under extreme weather events (Tscharntke et al. 2012). Moreover, concentration of agricultural production in certain places cannot guarantee distribution of available food and energy, while global reliance on fewer crops has come with micronutrient deficiency and nutritional quality decline in some places (Ramankutty et al. 2018).

This dissertation examines the emergence and working of the Farmland Bank (FB) program in Japan with a focus on farmers' perspectives on farmland. In an attempt to revitalize

the agricultural industry, Japan's government introduced the FB program in 2014. Farmland banks (FBs) are semi-public organizations established at the prefectural level (i.e., the first level of administrative jurisdictions) and serve as an intermediary to bring new actors and resources into farmland tenancy so as to strategically exploit cross-level opportunities for farmland use. By design, the program allows the FBs to accommodate tenants, including business corporations and outsider farmers, without the farmland owners' consent. This was intended to physically consolidate farmland and aggregate farm management into large-scale farming independently from owners' interest so as to generate economies of scale.

The introduction of this program is a major turning point since the post-World War II agrarian reform where farmland owners had been given a primary decision-making role in private farmland use. In the postwar era beginning with the land reform that dismantled landlordism for farmland redistribution to small farmers, farmers have been typically owner-farmers but increasingly included owners fully or partially disengaging from farming. They have historically exerted political pressure for conservative polices often to protect their vested interest in farmland, while providing stewardship to farmland and ecosystems (Mulgan 2005; Chouinard et al. 2008). In this vein, why and how have farmers allowed for the emergence of the FB program? Do they pursue individual maximization of economic benefits from farmland? Do they socially follow the governmental program at the expense of their individual benefits? Are they culturally comfortable to let the authorities to take care of the land?

The process of agricultural abandonment is complex and associated with multiple trajectories, and thus has made policy responses a great challenge (Munroe et al. 2013; van der Zanden et al. 2017). Drivers of abandonment involve both internal (i.e., local) and external (i.e.,

global or cross-territorial) factors, which vary in time and space (Lasanta et al. 2017). The internal factors range from bio-physical conditions and adjacent urban expansion to the features of agricultural holdings (e.g., age), while the external ones include market incentives, and increased off-farm economic opportunities that trigger rural-urban migration (Rey Benayas et al. 2007; Brouwer 2004). Agricultural policy also intertwines. Handicap payments in mountainous regions could mitigate abandonment with additional income for farmers, but politicians may judge them as socially undesirable (Lasanta et al. 2017; Strijker 2005). Structural assistance often aims to resolve fragmented land holdings but can homogenize land-use patterns and undermine ecological diversity at the expense of economic viability (Sklenicka et al. 2014; Chavas 2001). These factors interact with each other, wherein the external drivers trigger or exaggerate farmland abandonment whose surface and extent are conditioned by the internal factors (Lasanta et al. 2017).

In particular, the recent processes of globalization (i.e., planetary "interconnectedness of places and people" through global markets, information and capital flows, and international conventions) often magnify the external forces and exacerbate farmland abandonment (Lambin et al. 2001, 266). The impacts of agricultural abandonment are rarely confined to the abandoned area and the local population, but rather have off-farm impacts often as negative externalities (e.g., biodiversity, water and air) (Lasanta et al. 2017). Such externalities sometimes bring about economic, political and ethical concerns across territorial boundaries (Stoate et al. 2001). The globalization processes amplify or abate the driving forces of the land-use changes by transcending territorial boundaries in the flows of goods and services (e.g., incorporation of a region into the world economy, eco-labeling, better weather forecasts through information

technologies) (Lambin et al. 2001). Albeit not always detrimental, such processes can aggravate the impacts of abandonment, often leading to unexpected and profound socio-economic and environmental consequences (Liu et al. 2013).

In Japan, farmland abandonment has grown since the 1960s and exceeded farmland conversion since the 1990s. This trend progressed along with urbanization and industrialization under increased trade liberalization. The concerns over agricultural abandonment are multi-dimensional and extend to different sectoral areas ranging from rural development, cultural heritage, food security, and biodiversity change to the national economy. In recent decades, the recovery of food self-sufficiency has been one of the national policy goals. The country has experienced a steep decrease in food self-sufficiency: it produced 79% of its food in caloric terms in 1960, but 40% in 2000 (OECD 2013). Despite the political efforts, self-sufficiency has remained unchanged over the past decade (MAFF 2018i).

Amid a farming crisis, the government launched the FB program as a cornerstone of the agrarian structural reform to resolve the fragmented use of farmland based on family-owned farms and improve competitiveness in national and international markets. With a mandate to facilitate the productive use of farmland, the FBs were designed to lease smaller plots from land owners and sublet them to users in a larger and consolidated form for better efficiency and productivity. The FBs delegate some of their administrative tasks (e.g,. matchmaking between owners and tenants) to the relevant agencies at the municipal level. Building on several successive models that have emerged since 1970, this latest tenancy model gives more power to the prefectural authorities to openly recruit users and sublet farmland to them. This provides a

room for the FBs to freely bring those who they consider are technically and economically capable into the farming sector.

Despite growing abandonment, farmland still attracts interest. On the one hand, some policy-makers, entrepreneurs and business stakeholders emphasize farmland as a precious productive resource to be exploited for economic advantage. On the other, many scholars and environmentalists advocate for the ecological and cultural contributions of farmland to be preserved and handed down to the next generations as heritage. Local managers and city officials may connote farmland as a local resource to be nurtured as a communal asset. In the context of private land ownership, however, landowners are primarily entitled to farmland and their decisions are essential for land-use.

In the following sections, I first contextualize the emerging phenomenon of the FB program in the literature and explain how this study extends our knowledge about environmental governance, property rights, and the values associated with natural resources (Section 1.1). Then, I describe the research design and methodological approach I employed to address my research questions (Section 1.2). Finally, I outline the organization of the dissertation (Section 1.3).

1.1 Literature Review

The FB program is a state project that has been designed and pursued with national legislation and budgeted by the national government. Under the policy, prefectural governments have been authorized to plan and design its implementation at their discretion to a certain extent, while designating a FB as a main implementation agency to mediate tenancy arrangements. At the same time, some of the FBs' tasks have been delegated to municipal agencies to facilitate local

arrangements. Alongside this multi-level architecture, farmers either as a landowner or a tenant have individually and/or collectively responded to the program. The focus of the dissertation is the interplay of farmers' value perspectives and their responses to the FB program in the process of governing farmland.

To situate my questions in the literature, this section discusses two key concepts: multi-level governance (MLG), and the values associated with farmland. The concept of MLG has been widely applied particularly through the enlargement of the European Union (EU) to strategically exploit cross-level opportunities in negotiation, deliberation and decisions of policy-making activities and their implementation. In effect, Japan's government has adopted the MLG model to promote the productive use of farmland through the FB program, whereas the involvement of the prefectural and municipal authorities in program implementation is expected to deliver more legitimate governance outcomes than the state authoritarianism. In this regard, MLG provides a useful theoretical lens to explain the emergence and working of the program.

The concept of value perspectives on natural resources has also grown in the past several decades with a specific attention to the interactions between humans and nature. In particular, politically coined as 'multifunctionality' of agriculture, the farmland values have been conceptualized in multiple dimensions. Recent scholarship has been more attentive to dynamic interactions between the multiple values of nature and the institutions that govern property rights and their holders to manage natural resources.

This section first discusses MLG as an empirical and theoretical model to explain the emerging process and the mechanism of the FB program. Then, it builds on the concepts and conceptual frameworks of human valuation of nature to highlight the area to which this study

contributes by examining the interplay of farmers' perspectives in the process of program implementation. This is followed by specific research questions to be addressed in the dissertation.

Multi-Level Governance (MLG)

The concept of multi-level governance (MLG) was widely introduced in the wake of the 1988 reform of European structural funds and the Maastricht Treaty (signed in 1992) to analyze institutional innovations and explore the fate of the European state restructuring (Marks 1993; Stephenson 2013; Papadopoulos 2005). As a way to reallocate 'authority upwards, downwards, and sideways from central states,' the concept has gained an increased attention from scholars and policy-makers (Hooghe and Marks 2003, 233). Yet, the importance of cross-level linkages in governance had been recognized in other fields and regions (Gibson, Ostrom, and Ahn 2000; Stephenson 2013). In consideration of scholarship developments in different disciplines, Hooghe and Marks (2001) postulate that the emergence of MLG is one of the two intellectual responses to the recent horizontal and vertical dispersion of authority and decision-making power partly through public/private networks: one response has been to generate new concepts (e.g., MLG), and the other has been to stretch established concepts over the phenomenal changes (e.g., federalism, international relations).

As founders of the MLG concept, Hooghe and Marks (2001; 2003) surveyed similar concepts and found competing visions of MLG that were distinctive between two types: Type 1 and Type 2. The common vital feature of these types is a radical departure from the centralized state, but they diffuse authority in contrasting ways. Type 1 describes the observed "dispersion of

authority to general-purpose, nonintersecting, and durable jurisdictions" at a limited number of levels, and Type 2 describes malleable governing arrangements that comprises "task-specific, intersecting, and flexible jurisdictions" with no limit to the number of jurisdictional levels (Hooghe and Marks 2003, 233). The former is exemplified as a typical federal system where every citizen is located in "a Russian Doll set of nested jurisdictions'" equipped with a single relevant jurisdiction at a particular territorial scale (Hooghe and Marks 2001, 8). The latter is observed in metropolitan areas and frontier regions where functional, overlapping, and competing jurisdictions form a 'baroque patchwork' (Papadopoulos 2005, 317).

These distinctive approaches complement each other (Hooghe and Marks 2003). Type 1 builds on the jurisdictional design by which each jurisdiction conforms with a territorial community or encompassing group to voice rather than exit, seek self-rule and express communal identities (Hooghe and Marks 2001; Hooghe and Marks 2003). By creating inclusive jurisdictions but limiting the number of jurisdictional levels to internalize policy externalities, it minimizes inter-jurisdictional coordination efforts while maximizing the fit between the jurisdictional scale and the optimal scale of public good provision (Hooghe and Marks 2003). Largely building on a rationalist account, the Type 1 model is suited to deal with zero-sum issues for distributional bargaining or to pursue established goals (e.g., provision of non-excludable public goods) (Bache 2010; Marks and Hooghe 2004).

Type 2 embraces the task-driven jurisdictions for which membership is conditional and often competitive through low barriers to entry and exit to address a limited set of relevant problems (Hooghe and Marks 2003). By decomposing decision-making into jurisdictions with limited externalities in an insulated manner, it limits the transaction costs of inter-jurisdictional

coordination (Hooghe and Marks 2001; Hooghe and Marks 2003; Marks and Hooghe 2004). It is suited to explore Pareto-optimality or positive sum outcomes, rather than explicit redistribution, through pliable socialization and learning (Bache 2010; Hooghe and Marks 2003).

Alongside this development of the MLG concept in response to political changes in western societies, other social scientists have generated a theory of multi-level, linked relationships in environmental governance to address the growing need for interdisciplinary work across natural and social sciences (Hooghe and Marks 2003; Gibson, Ostrom, and Ahn 2000). Environmental problems appear on more or less distinct spatial scales and extents and often cut across administrative jurisdictions (Newig and Fritsch 2009).[1] To adequately deal with environmental issues, rethinking of institutional dimensions has been called for (Newig and Fritsch 2009; Young 2002). Today we have ample evidence of governance failures resulting from inappropriate accounts of human-environment dynamics and interactions across different spatial scales and administrative levels. The examples include collapse of fisheries, outbreak of human-induced disease, and significant ramifications of biofuel mandate (Cash et al. 2006; Liu et al. 2013). Even long-lived systems have been increasingly exposed and vulnerable to global change (Janssen, Anderies, and Ostrom 2007).

Accordingly, MLG has evolved extensively in environmental governance (Stephenson 2013; Newig and Fritsch 2009). In particular, the study of polycentric governance is a long-standing tradition in MLG theory. Rooted in the idea of flexible local arrangements rather than

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[1] I use the term of 'scale' defined as the "spatial, temporal, quantitative, or analytical dimensions used to measure and study any phenomenon," and the term of 'levels' as the "units of analysis that are located at different positions on a scale" (Gibson, Ostrom, and Ahn 2000, 218; Cash et al. 2006, 2). For instance, the phenomena that may occur at different 'spatial scales' include those within an urban area, within a region, within a nation, or across national boundaries, while different levels of spatial scale range from patches, landscapes, and regions to the globe (Gibson, Ostrom, and Ahn 2000; Cash et al. 2006). Also, the term 'extent' is referred to as the "size of the spatial, temporal, quantitative, or analytical dimensions of a scale" (Gibson, Ostrom, and Ahn 2000, 218).

the diffusion of state authority, it has developed with special attention to self-governance potentials adaptable to change. Stemming from the 1956 Tiebout's seminal article that hints at competitive local jurisdictions for optimal public good provision, the scholars at the Indiana Workshop in Political Theory and Policy Analysis (i.e., the Ostrom Workshop) have advanced the idea of flexible governance arrangements and postulated polycentric governance (Hooghe and Marks 2001; Tiebout 1956).

Initially introduced as a system of "many centers of decision making" formally independent of each other, 'polycentricity' is defined as "a system of governance" where authorities from overlapping institutions interact in determining "the conditions under which these authorities, as well as the citizens subject to these jurisdictional units, are authorized to act as well as the constraints put upon their activities for public purposes" (V. Ostrom, Tiebout, and Warren 1961, 831; McGinnis 2011a, 171). Being multi-level, multi-type, multi-sectoral and multi-functional, the system allows for inclusion, learning and policy experimentation on various levels, which may lead to overall innovation and effective provision of collective goods (McGinnis 2011a a; Goldthau 2014; E. Ostrom 2010). Originating from the local model of public good provision, this approach has gained prominence in studies on local and regional common pool resources, and has been extended to research on the global commons (Goldthau 2014).

Nevertheless, the point of departure of polycentricity was "the concern for matching institutions to the physical environment (and to the characteristics of the community)" (McGinnis and Walker 2010, 294). Extending the concept of polycentric governance that hinted at "the critical importance of *local solutions* to complex policy problems," E. Ostrom demonstrated the successful management of local commons without an

exogenous control either by markets or states (McGinnis and Walker 2010, 295). Thus she influentially disproved the conventional economic theory that resource users themselves were trapped in overuse and inevitably destroyed common-pool resources unless solutions were imposed from outside (E. Ostrom 1990; E. Ostrom 2009). Contrary to the conventional theory that resources would be over-harvested in the absence of 'property rights,' she proved that resource users would find ways to organize themselves for governing the commons (E. Ostrom 1990; E. Ostrom 2009).

Noticing considerable confusion arising from the imprecise presumption that resource users had no property rights without 'alienation' rights (i.e., a right to sell or lease their property), Schlager and E. Ostrom (1992) conceptualized property rights systems in terms of 'bundles of rights' rather than as a single right, containing: 1) 'access' (i.e., a right to enter a specified property), 2) 'withdrawal' (i.e., a right to harvest the products of a resource), 3) 'management' (i.e., a right to transform the resource and regulate internal use patterns), 4) 'exclusion' (i.e., a right to decide who will have access, withdrawal, or management rights), and 5) 'alienation' (i.e., a right to sell or lease any of the above rights). As empirical studies evidence, some resource users do self-organize and create long-enduring common-property systems for which the alienation right is not key (E. Ostrom 2009).

Moving beyond mainstream economic theories, socio-institutional approaches to property rights treat 'land' not simply as "a factor of production" but as "a socially structured space-time continuum" (Bastiaensen and Merlet 2012, 11). Instead of seeking to clearly define, enforce and guarantee land rights either by a state or a market, they consider land rights as evolving from dynamic and complex social and political processes where multiple social actors — working

individually or collectively— continuously claim and struggle for their rights to a piece of land and its resources (Bastiaensen and Merlet 2012; Merlet 2007). As a way of examining '*internal* relationships' among social actors who together construct land rights, rather than a mere focus on '*external* relationships' of owners (versus non-owners), the notion of property as 'bundles of rights' distinguishes different kinds of property rights that are negotiated, redistributed and reconstituted among the social actors who share interests in the properties (Alexander 2012, 1854–1855; Sikor, He, and Lestrelin 2017; Blandy, Dixon, and Dupuis 2006).

The system of polycentric governance, then, is an institutional form available to deal with arrangements of 'bundles of rights' in consideration of dynamic, conditional, contextual and diverse features of property rights (Armitage 2007; E. Ostrom et al. 2002). It can be interchangeably used as a system of the broadly defined MLG, if it is inclusive of integrative institutions beyond public authorities in multi-type governance (E. Ostrom and Janssen 2005; Liefferink and Wurzel 2018; Mcginnis 2008).[2] While cautions about misconception as a panacea were voiced, the normative attractions of polycentric or multi-level governance have been well received in studies built on complex adaptive systems (Pahl-Wostl 2009; E. Ostrom 2001; Levin 1999).

In an attempt to address sustainability problems, scholars have elaborated 'variables' or 'attributes' of MLG to successfully exploit cross-scale and cross-level opportunities in governing human-nature interactions, such as participation, accountability, knowledge co-production, mediation, negotiation, leadership, learning and trust (Cash et al. 2006; Armitage 2007; E. Ostrom 2009). Taking into account the challenges arising from cross-level interactions such as

[2] Some authors argue the distinctions between polycentric governance and multi-level governance (MLG), but they seem to narrowly define or deal with MLG largely as the one categorized in or closer to Type 1 MLG (Pahl-Wostl 2009; Roe 2009).

subsidiarity and dependency, they have also proposed various governance architectures including co-management (e.g., Adger, Brown, and Tompkins 2005), boundary or bridging organizations (e.g., Folke et al. 2005), nested enterprises (e.g., E. Ostrom 1990), and place-based management (e.g., Young et al. 2007). These approaches attend to vertical and horizontal interlinkages of human-environment interactions to acknowledge, accommodate and bridge the differences resultant from multiple levels. Scholars also note that evolution and outcomes of governance largely rely on the contexts in which the governance mechanisms are embedded across multiple levels (Brondizio, Ostrom, and Young 2009).

A major challenge of MLG lies in the continuous coordination of different actors and their actions at multiple levels and scales so as to take advantage of the scale flexibility of governance (Hooghe and Marks 2001). The barriers to overcome this challenge include the transaction costs (e.g., time, effort and other resources to design, establish and maintain new and old organizations), the baseline conditions (e.g., resource asymmetries, informal and formal rules), abuse of power or inertia of governing authorities (e.g., rent-seeking, ignorance), and divergence from checks and balances (e.g., inaccessibility to legitimate coercive power, universalistic principles) (Mcginnis 2008; McGinnis 2011b; Stephenson 2013; Blom-hansen 2005).

Specific to the interactions across different scales and levels, three societal obstacles for coordination are identified: 1) ‘ignorance’ (i.e., the failure to simultaneously recognize relevant scales, levels and their interactions); 2) ‘mismatch’ (i.e., the discrepancy between levels and scales in human-environment systems); and 3) ‘plurality’ (i.e., the failure to recognize heterogeneous value perspectives to scales held by different actors even at a single level) (Cash

et al. 2006, 4). These “scale challenges” essentially arise from multiple cognitive types of scale (e.g., spatial, temporal and jurisdictional), each of which is perceived from different levels (e.g., local, national and international levels), whereby complexity is added through human-environment interactions within and across scales and levels (Cash et al. 2006, 4).

To address these challenges, the discussions often go back to the variables/attributes of MLG or the factors affecting the emergence of new institutions as part of flexible governance. For instance, Cash et al. (2006) exemplify such responses to the scale challenges as co-management (i.e., a set of arrangements to share power and responsibilities between governments and local communities) and boundary organizations (i.e., organizations that play an intermediary role between different arenas, levels or scales and facilitate the co-production of knowledge), while detailing practical tools and strategies including boundary objects (e.g., maps and forecasts), accountability and participation of both sides of the boundary, complementary expertise, and translation.

Rather than specific rules to generate success, however, E. Ostrom (1990) identifies ‘eight design principles’ as general institutional regularities among the long-enduring property rights systems in order to understand why the results of governance processes are robust (i.e., adaptable to disturbance) in some cases and fail in others. While most of her design principles build on research in local and regional settings, application to higher levels is expressed as the eighth principle (i.e., ‘nested enterprises’) where various governance activities are organized in multiple layers to accommodate goals and interests of social groups at different levels.[3] Yet,

[3] The evaluation of the validity of the eight design principles shows considerable usefulness in understanding why some common-property institutions are robust (E. Ostrom 2009). The principles include:1) clearly defined boundaries; 2) congruence between local conditions, appropriation, and provision rules; 3) adaptability of collective choice arrangements; 4) appropriate monitoring; 5) graduated and implementable sanctions; 6) mechanisms for conflict resolution; 7) recognized rights to organize; and 8) nested enterprises.

successfully scaling up the design principles is an important challenge, whereas it remains understudied how to build social capital to bond governance systems across levels and scales (Gruby and Basurto 2013; Brondizio, Ostrom, and Young 2009; Nenadovic and Epstein 2016; Petruzzi, Pitt, and Busquets 2016).

Given the applicability of the MLG concept to diverse contexts, this dissertation employs MLG as an analytical framework to offer insights on how farmers as social agents have interacted with other agents, and how through these interactions they have contributed to transforming the MLG model for farmland tenancy. The theoretical lens of MLG helps me to explain a complex pattern of public/private and formal/informal institutional relations along with diffusion of authority within the state. It also directs attention to communal 'identity' as a causally-powerful factor of formation and transformation of farmland governance, while allowing for both rational and sociological accounts for mismatches/tensions between material and subjective aspects of governance. In addition, with the challenges of MLG in mind, the study attends to dynamic character and operation of powers of farmers and other agents in governing farmland.

Taking the FB program as an example, the study delineates the concept of 'nested enterprises.' Rather than highlighting the importance or outcome of sound governance, this study sheds light on the process of governance where the value perspectives to farmland held by different actors interplay across different levels and scales. Since farmland in Japan has been increasingly abandoned, the study also contributes to advancing the concept of the commons in the context of resource abandonment rather than resource scarcity.

Values of farmland: as perspectives seen from the governing processes

Governing farmland with the MLG approach involves a 'bundle of property rights' associated with different obligations or responsibilities (Schlager and Ostrom 1992; E. Ostrom 2009). For example, people who hold only access rights (i.e., 'authorized viewers') can enjoy the agricultural landscape, but cannot harvest anything and have to follow certain rules (e.g., not to step in a paddy). Those who have access and withdrawal rights (i.e., 'authorized users'), for instance, to nearby grassland, can harvest grasses for fertilizer or fodder for their own farming but may be restricted in the timing and amount of harvest. Those with access, withdrawal and management rights (i.e., 'claimants') can improve an irrigation facility but have to attain a local consent and achieve a goal to ensure better productivity and sustainability. Those who additionally have exclusion rights (i.e., 'proprietors') have rights and obligations to regulate farmland use, invest in the agricultural system, and decide who has access to the system. Those who have all the five rights including alienation (i.e., 'owners') can sell or lease some or all of their rights to someone else, but may have obligations to follow certain rules (e.g., permission from an agricultural committee). All these different types of right holders may value farmland differently. How do we conceptualize, differentiate and evaluate these values?

Farmland values have become increasingly recognized as a set of multiple values. Since the early 1990s, the concept of 'agricultural multifunctionality' has prevailed to express the important role of agriculture in shaping the landscape that provides environmental benefits and contributes to the socio-economic viability of rural areas, beyond its primary function of producing food and fibre (Maier and Shobayashi 2001; Otte, Simmering, and Wolters 2007). Since the Rio Earth Summit in 1992, this concept has evolved through the multilateral

negotiations between ‘non-trade’ and ‘trade’ aspects of agriculture under the aegis of World Trade Organization (WTO) (Wilson 2009; Renting et al. 2009).[4] In relation to policy support for agriculture versus trade liberalization, approaches to multifunctionaliy have been fragmented in the both political and scientific terms, despite efforts to develop integrative frameworks to evaluate the multifunctional contributions of agriculture (Wilson 2009; Renting et al. 2009).[5]

In a broad sense, the notion includes four kinds of agricultural functions: 1) green (e.g., biodiversity maintenance, landscape amenities), 2) blue (e.g., water quality, flood control), 3) yellow (e.g., rural cohesion, historical heritage), and 4) white functions (e.g., food security) (Van Huylenbroeck et al. 2007). In Japan, the concept has gained popularity since the OECD ministerial discussion of agricultural policies in 1998 and has been taken up in agri-environmental policies (Amano 2014).[6] The growth of economic valuations of agricultural multifuctionality in the 1990s was followed by the nationwide economic valuation by Science

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[4] The concept of agricultural multifunctionality was addressed in the Agenda 21 documents of the Rio Earth Summit in 1992 to introduce the sustainable development concept to the agricultural sector, and then gained an important role in scientific and policy debates (Renting et al. 2009; Wilson 2009). Although the concept was used implicitly under the Uruguay Round in the late 1980s, it has become a keyword of the EU Common Agricultural Policy (CAP) since 1993 to address farm abandonment, international trade pressures and biodiversity loss (Hollander 2004). In earlier years, European policy-making took advantage of the notion to facilitate subsidy-oriented CAP goals narrowly based on the economic and policy-based approaches to agricultural and rural change (Wilson 2008). In due course, ‘Friends of Multifunctionality’ (including Japan, South Korea and the EU) was formed to stress ‘non-trade’ aspects of agricultural production, whereas ‘Cairns Group’(comprising 17 agricultural exporting countries such as Australia, Brazil and South Africa) offered critical views on it to advocate agricultural trade liberalization in multilateral negotiations (Hollander 2004, 302). Following the growth of science and policy discussions, the concept has been broaden to be more inclusive of rural development, culture, societal needs, and environmental issues (Wilson 2008; Otte, Simmering, and Wolters 2007).

[5] Renting et al. (2009) trace the concept to different historical roots such as the OECD work, the Food and Agriculture Organization (FAO)’s focus, and the EU’s CAP reform. Also, they delineate four different research approaches to multifunctional agriculture (i.e., market regulation, land-use, actor-oriented, and public regulation approaches), and proposed new meta-level analytical frameworks.

[6] Although the notion was implicitly addressed in the Basic Direction of New Policy for Food, Agriculture and Rural Areas issued in 1992, the term officially appeared in the Food, Agriculture and Rural Areas Basic Act enacted in 1999 (K. Taniguchi 2000). Following this policy shift, a new scheme called Direct Payment to Farmers in the Hilly and Mountainous Areas was introduced in 2000 to ensure multifunctional agriculture by compensating farmers in disadvantageous areas for agricultural production (Teranishi et al. 2010). In practice, environmental consideration in agriculture was not new, however, as organic farming burgeoned in the 1970s with the movement building on consumer-produce partnerships and has steadily grown (Harayama 2001). Nevertheless, in the aftermath of Rio Summit, environmentally-friendly agricultural practices have furthered, while ecosystem approach with citizens’ participation has evolved to integrate land, water and living resource management (Mizushima 1996).

Council of Japan (SCJ) for Ministry of Agriculture, Forestry and Fisheries (MAFF) in 2001 which focused on the limited number of values, largely omitting cultural values (Kunii 2016).

Another concept, ecosystem services, has likewise gained currency since the 1990s. This is not limited to farmland but inclusive of a variety of ecosystem types, and has been popularized as a way to communicate the idea of societal dependence on ecosystems (Boyd and Banzhaf 2007).[7] While studies of ecosystem services proliferated with the emergence of ecological economics in the 1990s, the international work of Millennium Ecosystem Assessment (MA) spurred research on measuring, modeling and mapping ecosystem services and assessing their changes and contributions to human wellbeing, while placing the concept on the policy agenda (Fisher, Turner, and Morling 2009).[8] MA (2005, v) defines ecosystem services as "the benefits people obtain from ecosystems:" 1) provisioning (e.g., food, water and fiber), 2) regulating (e.g., climate regulation and flood control), 3) cultural (e.g., recreational, aesthetic and spiritual benefits), and 4) supporting services (e.g., soil formation and nutrient cycling). It also introduced an integrative conceptual framework to document, analyze and understand the effects of change on ecosystems and human wellbeing through the lens of ecosystem services (MA 2005).[9]

Furthering the MA work, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), which was established in 2012 as an intergovernmental body (often described

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[7] The modern history of ecosystem services dates back to the late 1970s with the scholarly effort to boost public interest in biodiversity conservation, and the term was coined in 1981 by Paul and Anne Ehrlich (Braat and de Groot 2012).

[8] To address the growing concerns of global environmental changes, the MA was conducted between 2001 and 2005 with the involvement of the work of more than 1,360 experts worldwide to meet needs of stakeholders for information concerning the consequences of ecosystem change and the scientific basis for actions needed for sustainable development (Pesche et al. 2013).

[9] In Japan, the concept of ecosystem services has been increasingly used over the past decade in scientific work including a multi-stakeholder assessment employing the MA conceptual framework (Duraiappah et al. 2012). On agricultural landscapes, studies have identified, measured and mapped a variety of ecosystem services including provisioning (e.g., rice, vegetables, dairy, meat), regulating (e.g., CO_2 absorption, flood mitigation, soil erosion control), and cultural (e.g., esthetic, educational and recreational values) services (K. Yoshida 2014; S. Hashimoto et al. 2015).

as the IPCC for biodiversity), offers a new conceptual framework. This framework is comprehensively applicable to synthesize knowledge and information on the linkages between people and nature so as to inform policy across different spatial scales, themes, and regions. In particular, it embraces different disciplines, diverse stakeholders and their different knowledge systems (Díaz et al. 2015).[10] Its vital contribution is the conceptualization of 'nature's benefits to people' as the 'perspectives' seen by people differently depending on their contexts (including 'detrimental' and 'beneficial' effects of nature).

The IPBES conceptual framework explicitly includes multiple knowledge systems (e.g., Western science, indigenous, local and practitioners' knowledge) to facilitate interdisciplinary collaboration. This is based on the recognition that "the representations of human–nature relationships may vary across cultures and knowledge systems in relation to specific worldviews and cosmologies" (Díaz et al. 2015, 4). In regard to 'nature's benefits to people,' it highlights "what is beneficial, detrimental or value-neutral depends on the perspective and context of different societies, groups and even individuals" (Díaz et al. 2015, 6).[11] It also recognizes that 'a good quality of life' is "highly value-based and context-dependent" and "multidimensional," given that "perceptions of a good life vary with gender, age, and culture" and reflect the diversity of humankind affected by multiple factors (e.g., access to food, equity, cultural identity, freedom of choice) (Díaz et al. 2015, 7).

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[10] In Japan, based on the IPBES conceptual framework, a nationwide comprehensive assessment of biodiversity and ecosystem assessments was conducted under the auspices of Ministry of the Environment (Committee for the Comprehensive Assessment of Biodiversity and Ecosystem Services 2016).

[11] The IPBES conceptual framework delineates six primary interlinked elements representing the natural and social systems, including: 1) nature; 2) nature's benefits to people; 3) anthropogenic assets; 4) institutions and governance systems and other indirect drivers of change; 5) direct drivers of change; and 6) good quality of life (Díaz et al. 2015).

Furthermore, this framework specifies values dependent on how individuals relate to nature and with other individuals; i.e., 'relational values' distinct from conventional values. It differentiates three types of values: intrinsic values (i.e., the values inherent to nature, independent of human judgement); instrumental values (i.e., direct and indirect contributions of nature's benefits to achieving a good quality of life); and relational values (i.e., the values imbedded in desirable relationships, regardless of tradeoffs to obtain nature's benefits) (Díaz et al. 2015). For the latter two, instrumental values can be readily linked to economic values and thus be effectively evaluated and communicated through economic valuation, whereas relational values depart from an economic valuation framework and are thus hard to evaluate (Chan, Satterfield, and Goldstein 2012). Scholars have been increasingly aware that a mere focus on either instrumental or intrinsic values without complementary attention to relational values may be neither appropriate nor practical to deal with complex human-environmental systems and may even "inadvertently promote worldviews at odds with fair and desirable futures" (Chan et al. 2016, 1462; Wegner and Pascual 2011).

In this connection, some scholars have recently offered critical reflection on institutional models of governing the commons, further departing from the idea that people as "rational calculators" are driven by their "fully formed" interests (Vasile 2019, 2). They have called for reclaiming "plurality through a relational dynamic" to spell out the ambivalent, contradictory and fluid nature of humans as being in "an ever evolving process of commoning" (Vasile 2019, 2; Velicu and García-López 2018). For instance, Singleton (2017) examines the criticisms of the E. Ostrom's design principles that build upon rational choice-based models and lightly attend to social relationships — in respect of macro-level actions, conceptualization of rationality, and

power relationships — and suggests that the design principles may effectively assimilate with cultural theory. He argues that cultural theory provides the model of ‘plural rationality’ in connection with social context by involving frameworks for perceiving what behavior can be regarded as rational, in addition to differences in tastes, interests and values. Besides ‘plurality’ underpinning institutions, recent scholarship has become more attentive to the contingent, emerging and dynamic character of institutions by conceptualizing institutions as “produced in the process of unfolding human practice” rather than fetishizing structures (Vasile 2019, 2; Beunen and Patterson 2016).

Increasing attention has also gone to the socio-cultural dimensions of human-nature interactions (Lau and Scales 2016). Importantly, several studies have pointed out that decision-making on resource use is “highly subjective, and influenced by emotions, relationships, power dynamics, and shifting subjectivities” rather than strictly rational (Morales and Harris 2014, 706; Nightingale 2013; Sultana 2011). In recent years, rejecting the idea of humans as “hard-wired” individuals who maximize net benefits, scholars have advocated for humans as “think-feeling-relational being[s]” who act “in response to cues” from their social and biophysical environments (Singh 2017, 760; Vasile 2019, 4). In respect of motivations for governance, their discussions often relate to the two prime concepts of ‘governmentality’ and ‘subjectivitiy.’

‘Governmentality’ is defined as “a historically situated and specific ‘form of power’” and seeks to grasp the relationship between different ‘rationalities’ of government (Ahlborg and Nightingale 2018, 386; Dean 2010, 24–30; Foucault 1991). More generally, it is the "art of government” in which various specific modes of “conduct of conduct” are designated (Ahlborg and Nightingale 2018; Fletcher 2010, 173). Such an art has evolved into multiple forms of

‘governmentality’ where various institutional actors, not merely the state, can exercise power. The concept helps researchers to understand human-environment relationships are not only affected but are incorporated in “the shifting grounds of politics, institutions, and subjectivities that together characterize the ‘conduct of conduct’” (Cooper and Rosin 2014, 392; Agrawal 2005, 7).

The literature on ‘authority’ also adds important insights on how ‘governmentality’ works. It notes that regardless of formal positions and mandate, institutional actors must repeatedly exercise their authority “through social relations, institutions and material domains” (Ahlborg and Nightingale 2018, 386). Albeit not always successfully, these actors assert and reproduce their authority to legitimize decisions on resource access and ownership for “at least a minimum of voluntary compliance” (Sikor and Lund 2009, 8).

The governmenality approach conceptualizes a governmental initiative “as an attempt to shape individuals’ conduct” by building a propensity and capacity within subjects to self-govern in compliance with governmental aims (i.e., indirectly forging and transforming their subjectivities), rather than directly coercing the population or individuals (Cooper and Rosin 2014, 392; Barnett et al. 2008). It also shows different logics of governmenality as multiple governmentalities that can co-exist, complement, assimilate or conflict (Ahlborg and Nightingale 2018). In contrast with “discipline” as a form of governmentality where government attempts to make individuals ‘internalize’ social values and norms towards self-governance, “neoliberal governmentality” establishes ‘external incentive structures’ in which incentives are manipulated to motivate individuals as ‘self-interested rational actors’ to conduct proper behaviours in consistent with the main goal of economic growth (Ahlborg and Nightingale 2018, 386–387;

Fletcher 2010, 173–174). In either of these forms, the mechanisms which government designs to operationalize a program and configure individuals responsible for its operation have been deemed "technologies of government" (Cooper and Rosin 2014, 393; Miller and Rose 1990, 75). Despite this distinctive articulation of governmental logics, the governmentality approach allows for "an empirical mapping of governmental rationalities and techniques," rather than claiming "ideal typification" or implying generalized acceptance or successful implementation (Cooper and Rosin 2014, 393; Rose, O'Malley, and Valverde 2006, 99).

Yet, it is arguable how the governmentality approach conceptualizes the population or individuals. Governmentality is mostly understood to treat the population as its 'object' with the aim to "improve the human condition" of individuals as "resources to be fostered, to be used and to be optimized" (Ahlborg and Nightingale 2018, 386; Li 2005, 387; Dean 2010, 29). While it is applicable to multiple scales of analysis, it has been extended, for instance, to welfare programs where governmentality is performed as the "subjectless" power of the "development apparatus" by taking the people as "an undifferentiated mass" (Ahlborg and Nightingale 2018, 387; Ferguson 1990, 19; Ferguson 1994, 178). In this regard, several scholars caution against a narrow focus on technologies of government that marginalize "the very subjects that are to be governed" (Prince and Dufty 2009, 1753; Barnett et al. 2008; Gibbon and Ponte 2008).

Cooper and Rosin (2014) highlight that most studies have focused on how governmentality works but less have attended to governmental failure to remake subjectivities and thereby attain desired outcomes, although failure is more common than success. Furthermore, noting that the governmentality literature often analytically separates subject positions from the cultural politics of resistance to those subjectivities, Nightingale (2018, 695)

argues that particular state-subject boundaries emerge from a dynamic process in which "people simultaneously accept and refuse the knowledge, discourses, relations and practices" as they move through everyday-life contexts, rather than the presumed subjectivation process that produces stable and categorized subjects based on dichotomous "relations of domination or resistance."

For precise understanding of how individuals situate themselves in the relationships between governing and ways of thinking, the concept of 'subjectivity' is analytically crucial. Subjectivity refers to "the expression of the individuals' sense of identity, values and practices" that emerges from the social context of the subjects existing "within a specific place, time, or set of relationships" (Cooper and Rosin 2014, 393; Morales and Harris 2014, 706). Individuals are always subject to external forces and contexts that influence their being, but also the active subject of being, thinking and acting, and thus subjectivities are "synchronically constructed" by the individuals' "external and internal phenomena" (Cooper and Rosin 2014, 393).

Subjectivity may reference a sense of 'identity' (i.e., "the external social categories that individuals subscribe to" — e.g., gender and occupation), but is shaped in connection with context and may change depending on the circumstances of the subject (Lau and Scales 2016, 138; Morales and Harris 2014, 706). Whereas individuals may turn a sense of identity "into their lived choices," they may "internalize social expectations of what counts as normal or acceptable behavior" and even "re-express subordinating norms" in reference to "power-laden aspects of context" (Lau and Scales 2016, 138; Morales and Harris 2014, 706; Ahlborg and Nightingale 2018, 385). As such, 'subjection' as the processes of one's expression and re-expression of oneself can be ambivalent, contradictory and paradoxical, for instance, containing the 'paradox

of resistance' where their "acts of resistance to subjection […] simultaneously confirm and reiterate social hierarchies and discriminatory norms" (Ahlborg and Nightingale 2018, 385; Butler 1990; 1997).

Furthermore, differently from 'individual' subjectivity, 'collective' subjectivity results from "the lived experience of 'togetherness'" within "specific configurations of power" as a group (Lau and Scales 2016, 138). In an effort to theoretically link "individual emotions and actions" to "collective practices," Nightingale (2013, 2363, 2366) depicts the emergent and dynamic processes of collective subjection in which subjectivities are "relationally" embodied through experiences of particular conditions, knowledge and physicality within specific places and spaces that contribute to a sense of ability, pride and self-worth. But she also demonstrates that such subjectivities greatly change in different power contexts where the same individuals find themselves disempowered within different emotional relationships with others (including material things). By showing "the 'ambivalence of the subject'" where a person has contradictory feelings about the same resource, policy and place in different realms of power relations, she argues that the shifting boundaries between subjects themselves, others and policy can "cause different emotional and political outcomes" (Nightingale 2013, 2374). Both individual and collective subjectivities are "complex, fluid and multiple" and "vary over time and space" (Larner 2012, 360). Yet, collective subjectivities have distinctive social and ecological implications in resource management contexts where domination over resources can be contested and reinforced (Cote and Nightingale 2012).

Despite growing attention to the fluid nature of human actions and relations in environmental governance, the literature on institutions related to these aspects is thin (Vasile

2019; Morales and Harris 2014). Several studies have explored the institutional meanings negotiated in the process of struggles and experiences on the ground where thoughts, feelings and emotions individually and collectively interplay (Riedy, Kent, and Thompson 2018; Mahoney and Thelen 2009; Velicu 2015). However, such research in the resource-abandonment contexts is scarce.

In the context of farmland abandonment, some authors have studied actors' perspectives on farmland that has been abandoned and confirmed diverse, complex, multi-dimensional and changing perspectives. For instance, Benjamin et al. (2007) found that owners largely perceived their land negatively at the scale of the individual property as the land use having the least value and being the least appreciated, while Nishihara (2012) demonstrated that with a slight probability of land conversion, owners greatly changed their value perspectives and attitude. Others note that different types of actors (e.g., locals, tourists) assign different dimensions of landscapes (e.g., tradition, nature conservation, profit, and emotion) that coexist even in one actor but change through their experiences while sometimes involving spontaneous actions (Hunziker 1995; Subirós et al. 2016; Lisec et al. 2014). Few studies have situated subjects explicitly in the contexts of multiple power relations.

Research questions

The primary goal of the dissertation is to examine how the FB program has emerged and has been working as regards farmers' perspectives. The development trajectory of the FB program is a unique opportunity to study the dynamic process of MLG by taking the program as a technology of government. At the same time, my focus on farmers' perspectives contributes to

the literature on institutions and property rights in terms of the interplay between institutional structures and actors in the contexts of resource abandonment. To achieve the goal, the following questions guide the research:

1) How and why have institutional arrangements in governing farmland changed over the post-WWII years?
    a) Who has been involved across different levels? What institutions have evolved formally and informally?
    b) How have these institutions and their arrangements changed over time?
    c) What were the drivers of change in these institutions and their arrangements?

2) How and why have farmers individually and collectively responded to the FB program?
    a) To what extent have farmers accepted the program?
    d) What were their motivations for adopting, resisting or ignoring the program?
    e) How and with whom have they interacted in the processes of introducing and implementing the program?
    f) How have the subjectivities of farmers changed in the course of program introduction and implementation?

1.2 Research Design and Data Collection

The dissertation employs a qualitative approach. Taking MLG as an analytical framework, not merely a governance model, I probe how farmers have interacted with other social agents in the

process of shaping and implementing the FB program. To examine the process of governing farmland with a focus on farmers' perspectives, I used a comparative case study. Two communities (i.e., District N and Village U) in Ishikawa Prefecture were selected. The case study method is well suited to investigate individual lives, small group behavior, program implementation, and institutional relations and changes within a real-life context (Yin 2009). Also, small-N case studies are generalizable to theoretical propositions, not populations or universes, and can produce concrete, practical, context-dependent knowledge that is valuable for human development (Yin 2009; Flyvbjerg 2006).

Case selection

Out of all 47 prefectures in Japan that have implemented the FB program, Ishikawa Prefecture was selected. This prefecture has regional distinctions in the context of land-extensive farming for rice production. Rice is a key staple of the Japanese diet and its cultivation has been politically and socially protected, but has become no longer a sanctuary for global trade. Paddy fields have been the ground of political struggles historically, but have become abandoned or diverted for other uses over several decades. Moreover, agricultural policy has promoted conversion from rice to other crops to be grown on paddies since the 1970s. As part of one of the major rice producing regions, Ishikawa Prefecture also exhibits typical and symbolic agricultural landscapes.[12] In this regard, the prefecture offers an opportunity to study the governing of farmland in the typical Japanese context of land-extensive farming.

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[12] Ishikawa Prefecture is part of Hokuriku Region which is one of the eight jurisdictions of Ministry of Agriculture, Forestry and Fisheries (MAFF). Across the country, Hokuriku Region is one of the representative rice producing regions, where the proportion of rice paddies to the entire farmland (e.g., 89.5% in 2014) is much larger than national average (e.g., 54.4% in 2014). The proportion of rice paddies to the total farmland area in Ishikawa Prefecture was 83.5% in 2014 (Source: Arable Land and Acreage Statistics (*Kochi oyobi sakutsuke menseki tokei*), Statistics Department, Minister's Secretariat, MAFF).

Located on the west coast of the Japanese archipelago, the prefecture comprises two geographically and culturally contrasting rural regions lying north and south between which the urban area extends: the hilly region on the peninsula in the north (Noto region) and the alluvial plain formed by the rivers running from the steep mountains in the south (Kaga region) (see Figure 1.1).[13] Although rice production occurs in both regions, the northern agriculture is dominated by family-run, smaller-scale farming compared to the southern one that features larger-scale farming often in the form of corporations.

In general, the north has experienced more severe population decline and aging, and agriculture abandonment.[14] Thus Noto region presents the typical agricultural features of hilly and mountainous regions, whereas Kaga region displays more productive farming landscapes common in flatter regions or urban fringes. Given the adverse conditions in the north, however, the local and regional actors (including the prefectural government) have promoted the ecological and cultural aspects of farming to sustain agriculture.[15] The rural landscapes of Noto region were designated as a site for Globally Important Agricultural Heritage Systems (GIAHS) by the Food and Agriculture Organization of the United Nations (FAO) in June 2011. This

[13] No specific and formal administration boundaries exist to demarcate the regions, while the regions are differently defined on different occasions. For instance, for the statistical purpose MAFF defines Noto region as nine municipalities located in the northern part and Kaga region as the rest of municipalities (10 municipalities) in the southern part (MAFF 2018h, 4). Likewise, the prefectural government statistically distinguishes the two regions in the same way (Ishikawa Prefectural Government 2018, 2), but the officials often presumed that Kaga region excludes one of the five regional jurisdictions located at the center of the prefecture given its more urban characters (according to my interviews with the prefectural officials in 2016). In the old provisional system, two different provinces existed, called *Noto no kuni* (in the north) and *Kaga no kuni* (in the south). Prior to the Meiji Restoration in the late 19th century, some parts in the current central jurisdictional region belonged to either of the regions differently from the current statistical demarcation.

[14] In Ishikawa Prefecture, population engaged in farming continuously decreased since 1960s (59.4% decrease from 1960 to 2006), and the ratio of elderly farmers at least 60 years old increased from 30.5% in 1983 to 79.8% in 2004 (JSSA Hokushinetsu Cluster 2010). Also, the agricultural abandonment ratio (the ratio of abandoned farmland to total farmland) increased from 5.4% in 1995 to 8.7% in 2005 in the prefecture (cf. 4.2% in Kaga region, 13.9% in Noto region, and 5.8% on the national average in 2005) (JSSA Hokushinetsu Cluster 2010).

[15] For instance, the prefectural government has been promoting biodiversity management and agricultural heritage revival as part of its development strategy through several programs such as the Ishikawa Biodiversity Strategic Vision (2011) and the formation of a cross-sector office to implement this vision (Ishikawa Prefectural Government 2011a).

designation has drawn international attention to the social and ecological significance of agricultural landscapes (Koohafkan and Altieri 2011).

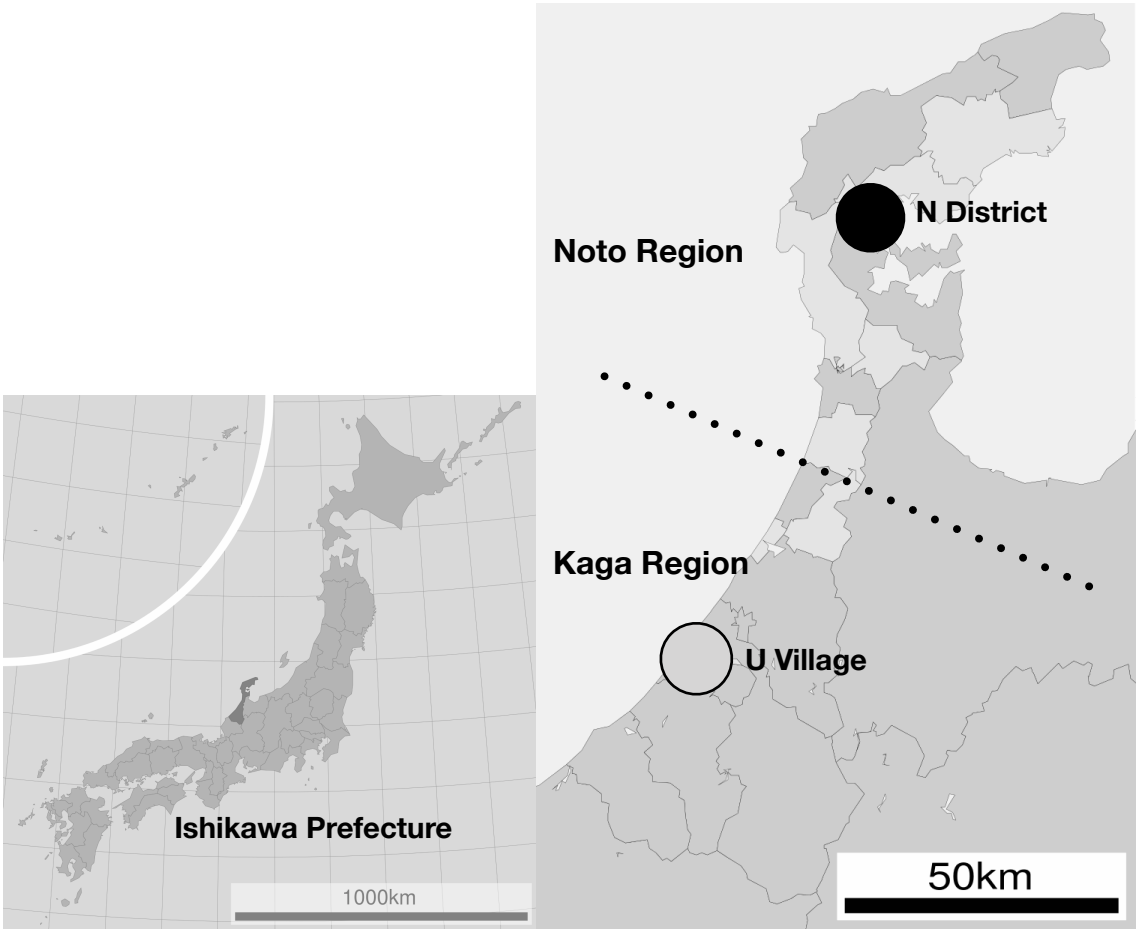

Figure 1.1 Location of Sites for Comparative Case Study

Note: Data maps were derived from the website (https://en.wikipedia.org/wiki/Ishikawa_Prefecture) under the terms of the GNU Free Documentation License.

Within Ishikawa Prefecture, two farming communities were selected based on a contrast in program adoption: one community, District N, has fully adopted the program on a community-wide basis, and the other, Village U, retained conventional tenancy arrangements without relying on the FB program. District N is located in the central part of Noto region and comprises agricultural landscapes in hilly and mountainous areas. Consisting of 10 villages, the District

involves 7 villages where the majority of landowners have participated in the program with governmental financial support for collective use. The farmland has been sublet mainly to an incorporated community-based farming corporation in addition to a few other local farmers. Village U is located in the central part of Kaga region and encompasses extensive paddy fields in its flat area. Except for a few farmland owners who participated in the FB program, the majority of owners have been indifferent. They have mostly continued local tenancy arrangements where landowners and local farmers made direct contracts. Local farmers as tenants were either full-time large farmers who independently managed their farms or part-time and/or small farmers who were part of an unincorporated village-based farming organization.

The two cases within the same prefecture allowed me to comparatively analyze how farmers individually and collectively responded to the program in the distinctive regional contexts under the same implementation mechanism. As numerous studies point to co-relations between land features and land-use changes (e.g., Sato 1988), it is likely that topological and geographical distinctions may affect tenancy arrangements. To explore farmers' motivations for program adoption (or rejection), the distinctive regional features between the cases helped me to not merely clarify 'whether' but elucidate 'how' such biophysical or environmental factors made an impact on program implementation in consideration of material, spatial and political relationships of the actors. By revealing how different municipal agencies have coordinated the local and prefectural levels, I could also better explain the farmers' interactions with other agencies. The contrasting levels of program adoption allowed me to examine how farmers' subjectivities changed (or not) in the processes, leading to different policy outcomes.

Besides the two sites, I also collected data from other places in the prefecture. This complemented the information and corroborated the findings from the cases. In particular, my preliminary fieldwork, conducted in August 2016, found different types of farmers or farm management entities which were acting as tenants. Three major farm types included: 1) village-based farming organizations, 2) local individual farms, and, 3) outsider/new farms. The two cases cover the first two types as tenants who have either adopted the program or not. The third type of farms were mostly absent in the two cases. To fill this gap, I interviewed several farmers who corresponded with the third type of farms in other locations within the prefecture. In addition, to better understand the local context of each case, I interviewed a few farmers residing or farming in communities adjacent to District N and Village U.

Data collection and analysis

The case study included: semi-structured interviews with farmers (including owners and tenants), officials from municipal, prefectural and national agencies, and experts and scholars engaging in the issues of farmland use and management in the prefecture; attendance at community meetings related to the FB program; qualitative analysis of documents on the program and communities; and descriptive analysis of census and national and local survey data. Among these different approaches, I gathered key empirical data from my fieldwork in Japan intermittently between 2016 and 2018. Most primary data collection drew on the semi-structured interviews with farmers and other stakeholders.[16]

[16] I received approval from Columbia University's Institutional Review Board on September 28, 2016 to conduct anonymous interviews.

The interviews with farmers aimed to understand their experiences in farming and farmland management in relation to the FB program and to identify their perspectives to farmland together with their subjectivities. Participants were recruited mainly from the two farming communities (i.e., District N and Village U), but complementarily from other parts of the prefecture. The total population of farmers who participated in the study was 91 (see Table 1.1, and Appendix A for details). For the two farming communities, the selection of participants covered a variety of relationships between farmers and tenancy arrangements and thus included owner-farmers, non-farming owners, and tenant farmers.

In District N where the FB program has been adopted, I attended two community meetings where farmers discussed their preparation for program adoption. In addition, I interviewed three farmers from three different neighboring communities: one community with the FB program, and two communities without the program but characterized by different topological features. In Village U where tenancy arrangements have conventionally extended beyond the village territory, I interviewed three farmers from two neighboring communities: one largely involved in the tenancy arrangements with the farmers from Village U, and the other independent from such arrangements. The selection of participants from other parts of the prefecture was designed to reach out different types of farmers/farms in different contexts, particularly in regard to organization forms, so as to corroborate the findings from the two cases.

Table 1.1 Interviews with Farmers (2016-2018)

Cases	Municipalities (Regions)	Districts/Areas	Numbers of Participants	
District N	City A (Noto) [1)]	District N (Hilly area)	26	29
		Neighboring communities	3	
Village U	City B (Kaga)	Village U (Flat area)	24	28
		Neighboring communities	4	
Others	City B (Kaga)	Hilly area	2	2
	City C (Noto) [2)]	District HK (Hilly areas)	7	25
		District WA (Hilly and Flat areas)	14	
		District HR (Hilly and flat areas)	1	
		District TD (Flat areas)	1	
		District SH (Flat areas)	2	
	City D (Noto)	Across the city (both hilly and flat areas)	1	1
	City E (Kaga)	Flat areas	1	1
	Town F (Kaga)	Flat areas	3	3
	Prefecture-wide	Across the prefecture (both hilly and flat areas) [3)]	2	2
Total			91	

Note: 1) I attended two community meetings, which were voluntarily organized by villagers, on December 8, 2016 (Village NC) and December 10, 2016 (Village NF). 2) I attended two community meetings, which were organized by the municipal government, on December 15, 2016 (District HK) and January 17, 2017 (District WA). 3) I attended one community meeting, which was organized by the farm company (i.e., a tenant), on January 13, 2017 at one community in Town G of Noto region.

The interviews with other stakeholders aimed to comprehend the actual working of the FB program and to explore different perspectives to farmland in connection with their roles and responsibilities. The selection of participants was based on the relevance of their agencies and expertise to farmland use and management in the prefecture. In total, I interviewed 74 stakeholders from different agencies across different levels (see Table 1.2, and Appendix A for details). Besides the national and prefectural agencies, I selected the relevant agencies within the municipal and regional jurisdictions where the focused communities were located. I also approached other stakeholders or experts who had knowledge of farmland use and management as well as experience in governing farmland from different formal and informal jurisdictions, including advocates/activists, scholars and officials from different administrative jurisdictions. These interviews helped me to better understand the scope of formal and informal institutions beyond public authorities as well as diverse contexts and aspects of agriculture within the prefecture.

Table 1.2 Interviews with Stakeholders

Jurisdictions	Organizations		Number of participants	
National	Ministry of Agriculture, Forestry and Fisheries (MAFF) - Regional Office		3	3
Prefectural	Prefectural Government		8	
	Farmland Bank		4	
	Champers of Agriculture		3	
	Unifier of Japan Agricultural Cooperatives (JA)		3	
	Land Improvement Projects Federation		3	
	Agricultural Development Corporation		3	24
Regional	Oku-Noto Regional Office (Noto)		2	
	Naka-Noto Regional Office (Noto)		2	
	Minami-Kaga Regional Office (Kaga)		2	
	Ishikawa Regional Office (Kaga)		1	7
Municipal	City A (Noto)	City Hall	5	
		JA - AW	1	
	City B (Kaga)	City Hall	2	
		Irrigation/Land Improvement Projects Secretariat	1	
		JA - BX	1	
		JA - BY	1	
	City C (Noto)	City Hall	3	
		Land Improvement Projects Secretariat	1	
		JA - CS	1	
	City D (Noto)	City Hall	3	
		Land Improvement Projects Secretariat	1	
	City E (Kaga)	City Hall	2	
	Town F (Kaga)	Town Hall	1	
	Town G (Noto)	Town Hall	1	
	Town H (Noto)	Town Hall	2	
	City I (Kaga)	City Hall	3	
		JA -IH	1	30
Private / Non-profit	Universities		5	
	Non-profit organizations /Activists		3	
	Forestry Association		2	10
Total				74

Most of the interviewees were identified through snowball sampling that started with the academic and prefectural government contacts. Thus, despite good accessibility to data, information and knowledge, the study was constrained by the selection bias. The two cases were approachable communities, rather than closed-off ones that may be often the case in rural regions of Japan. The complementary interviews with farmers and stakeholders in other jurisdictions and territories in the prefecture overcame this constraint to some extent. Also, the access to respondents was broadened through the selection criteria to balance different ways of involvement in tenancy arrangements as well as program implementation across different jurisdictional and non-jurisdictional levels.

The semi-structured interviews were conducted face-to-face mostly with a single respondent but sometimes with two or three respondents particularly in the case of public agencies. They ranged in length between 60-200 minutes. While granting flexibility in accordance with the flow of conversation, the interview schedules were organized around the following themes: 1) the background of respondents in farmland use and management; 2) their engagement in policies and programs relevant to tenancy arrangements (only asked if relevant); 3) their roles and responsibilities for farmland use and management (including tenancy arrangements); and 4) their perspectives on farmland. The interview questions were customized to the respondents' specific contexts, time and availability, while several respondents allowed repeat interviews (see Appendix B for general interview schedules). Most of the interviews were audio-recorded with the permission of interviewees under the condition that no proper names would be used in any published work resulting from the project.

The data analysis was based on qualitative interpretation of the interview transcripts and field notes complemented by archival studies and statistical analysis. To examine respondents' perspectives and their involvement in farmland use and management, I combined an *ethnoecological approach* with *narrative valuation*. *Ethnoecological* methods (e.g., interviewing, participant observation, and social network analysis) help to deepen insights into how farmers conceptualize, value and use their local natural environments, whereas *narrative valuation* (e.g., descriptions offered through interviews) allows for elucidation of the importance of farmland to the respondents in their socio-cultural contexts (IPBES 2016).

To synthesize different and often incommensurable perspectives held by farmers and other stakeholders in relation to tenancy arrangements, I drew on *narratives*, one of the most practical ways to synthesize different values and represent diverse worldviews and value types resulting from different geographical and social organizational scales (IPBES 2016). Besides the interview results, *narratives* were drawn from archival studies and descriptive statistics. Archival studies were conducted through books, journal articles, policy documents, official website and newspapers for the postwar period to reveal historical traits of institutional arrangements, while statistical analysis were undertaken to discern the trends and status of farmland use and management (e.g., farm population, and farmland area size).

Taking *narrative* approach (i.e., descriptive results from the interviews, textual findings from archival studies, and descriptive statistics), I accommodated interview descriptions in different socio-cultural contexts and grouped different perspectives. At the same time, I grouped different tenancy arrangements in accordance with key variables (e.g., who were involved, when an arrangement was made, what were objectives and goals, and what were the requirements,

conditions and advantages). Building on the key variables that were to categorize the tenancy arrangements, I analyzed commonalities and differences between the value perspectives held by different respondents across levels, and then examined the status of their involvement in farmland use and management, particularly tenancy arrangements, so as to evaluate the performance of alternative tenancy arrangements according to different value positions and worldviews.

1.3 Structure of the Dissertation

This dissertation discusses the process of governing farmland in the context of agricultural abandonment with a focus on farmers' perspectives. In an attempt to revitalize the agricultural industry of Japan, the national government introduced the FB program in 2014 to take advantage of cross-level opportunities for 'expediting' tenancy arrangements. Chapter 2 provides conceptual discussions of the institutional transformation in governing farmland for the postwar years. Along with the demographic and cultural changes, it frames 'farming households' (*ie*) and 'farming communities' (*mura*) as key social institutions. By adopting MLG not only as a real-world phenomenon but also as both prescriptive and theoretical approaches, it introduces three postwar MLG models that emerged through agricultural policy reforms. Subsequently, Chapter 3 describes the emergence of the FB program as the latest (or the fourth postwar) MLG model and explicates its design and mechanism. It also shows the administrative implementation of the program in Ishikawa Prefecture with a focus on two municipalities where the case communities were located.

The comparative case study is then elaborated. Chapter 4 traces the historical trajectories of the postwar transformation of the two communities. Encompassing social, economic and ecological dimensions of change, it compares the evolution of farming communities (*mura*) as a key institution in governing farmland. Chapter 5 focuses on District N to examine the status and drivers of program adoption at the household and community levels, and Chapter 6 focuses on Village U to account for the inactive involvement in the program and explicate alternative tenancy arrangements. In the both cases, I delve into farmers' motivations for their choices of different tenancy arrangements in connection with their perceptions on farmland and themselves as farmers. I also distinguish between individual and collective subjectivities of respondents. The findings from the two cases are summarized and compared in Chapter 7. This chapter also discusses theoretical and methodological implications as well as policy implications.

Chapter 2: Postwar Institutional Transformation in Governing Farmland

This chapter examines the institutional transformation involved in governing farmland during the postwar years which led to the emergence of the Farmland Bank (FB) program. To provide a conceptual and theoretical perspective, the study adopts Multi-Level Governance (MLG) not only as a real-world phenomenon involving different administrative levels, but also as a prescriptive (e.g., top-down and bottom-up) and theoretical (e.g., norms) approach to governance. First, the chapter introduces the land reform that laid the groundwork for postwar agricultural land policies. This reform was a radical institutional transformation from the prewar landlordism, giving birth to the first postwar legal system, the Agricultural Land Act (ALA) of 1952. At the same time, I elucidate the historical development of farming communities (*mura*) and families (*ie*), which became the targets of denunciation for the postwar reform but have lived through the transformation. Second, the chapter illustrates the changes in the MLG model for three subsequent periods: 1) the first stage (1945-1959) readying the second model; 2) the second stage (1960-1984) where the second model emerged and came into operation; and 3) the third stage (1985-2004) during which the third model was developed and then reshaped. Finally I explore the cross-level interactions of social agents in both the public and private sectors that have driven the changes in the MLG model.

2.1 Emergence of the First Postwar MLG Model

Land reform started following the end of World War II. As part of the postwar reform to reconstruct the nation as a democratic state, it was carried out between 1947 and 1951 with a goal to dismantle the prewar landlordism and establish a new institution of farmland ownership

(Ge 2009; Shimizu 2007). This reform had a three-fold mission to: 1) foster owner-farmers; 2) standardize land rent at an adequate level; and 3) democratize the farmland committees (Honma 2010). To execute this mission, the government acquired land by purchasing from landlords and sold it to tenants at an extremely low price, disallowing absentee landlords to hold tenanted land, and limiting resident landlords' holding to 3 ha for owned land and 1 ha for tenanted land (Honma 2010).[17] To implement land acquisition and resale, the farmland committees, which had been responsible for controlling the rights to farmland at the municipal level since 1938, were reformed (Honma 2010; Yukitomo 2015). Although the members were previously appointed by a governor, those in a new committee were publicly elected to consist of five tenants, three landlords and two owner-farmers (T. Morita 2017b). With the involvement of about 70% of farmers (i.e., 30% of citizens) nationwide together with the transfer of more than a third of the total ownership, the reform resulted in the dominance of owner-farmers: 90% of the nation's farmland was owned by the farmers owning 1 ha on average (Ge 2009; Shimizu 2007). Tenanted land decreased from 46 % to less than 10%, whereas the rent reduced from sometimes over 50% of farm produce in the prewar era to 1-2 % (Honma 2010; Iwao 1994).[18]

This outcome was institutionalized in 1952 as the Agricultural Land Act (ALA), resulting in the first postwar model of farmland governance characterized by strict state control of tenancy. With the aim to hamper the revival of landlordism and protect the new owner-farmers, the law upheld the "owner-farmer principle" (*jisakuno-shugi*), stipulating that "the ownership of

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[17] As an exception in Hokkaido Prefecture, the area was limited to 12 ha and 4 ha respectively for the farmland owned by resident landlords and that tenanted by them (Honma 2010).

[18] The reform also took a measure to change the rent payment from in-kind to monetary because the monetary payment allows the rice price policy to be producer-oriented while the in-kind one may work advantageously for landlords who can benefit from a rice price rise (Fukutake 1977; K. Noda 2006).

agricultural land by cultivators themselves is most appropriate" (Article 1) (Honma 2010; Shimizu 2007). Accordingly the ALA limited farmland transactions (i.e., buying and selling, and borrowing and lending farmland, and converting farmland-use) except for acquisition by the existing cultivators. With no stipulation about ownership by corporations, the law limited tenancy by resident landowners to 1 ha on average in each prefecture with the rent set at the minimum level.[19] To protect tenants' rights, it prescribed the 'legal renewal' of a tenancy contract by which a contract 'shall be renewed' with the same terms as before unless one party reports to another within a certain period of time prior to the end of the contract life (Arimoto and Nakajima 2010).[20] A contract could not be canceled or terminated without formal government approval even if the tenant and owner agreed. Thus, the first model took the form of state control in transferring all the rights to farmland by politically opting for farm management exclusively by owner-farmers in which ownership and usership were united. This excluded other means of farm management that might have led to the attainment of the stated objective "to stabilize the status of cultivators and boost domestic agricultural production" (Honma 2010).

This model emerged from the negotiations to reconstruct the nation state. The major external force was the intervention by the US Supreme Commander for the Allied Powers in the General Headquarters (GHQ). The instruction note to the Japanese government also known as "MacArthur's Peasant Liberalization Directive" issued on December 9th in 1945, reinforced the state project and vigorously facilitated the move to the reformative goal (T. Morita 2017a; Iwao

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[19] As an exception in Hokkaido Prefecture, the ALA limited tenancy by resident landowners to 4 ha on average.

[20] The ALA (Article 17) stipulates: "In the case of a lease of cropland or meadow/pasture land with a prescribed term, if either of the parties therein fails to notify the other party of his or her intention not to renew the lease from one year to six months prior to the expiration of that term …, it shall be deemed that a further lease has been entered into under conditions identical to those of the previous lease."

1994). The note described landlordism as "economic bondage" or "pernicious ills" which "enslaved the Japanese farmer to centuries of feudal oppression," and urged the Japanese government to exterminate it and revive democratic tenancies.[21] Besides the mission of state democratization, several domestic and international opinion leaders pointed out the hidden agenda of the US occupational forces to strengthen the social foundations of a private ownership system in the interest of establishing an "anti-Communist foothold" in Asia under the unfolding Cold War (Teruoka 2008; Hoshino 1988).[22]

As an internal force, in October 1945 Japan's government began the reform, but its initial attempt (i.e., the so-called "first land reform") transformed into another form (i.e., the "second land reform") with the above-mentioned external direction (Honma 2010; Yukitomo 2015; K. Noda 2006).[23] In an attempt to recover national strength in food production, the former was targeted at 'larger-scale' owner-farmers to retain an optimal scale of farming and enhance community-based organizations through restructuring agrarian communities for owner-farmers (K. Noda 2006). The latter focused on 'smaller-scale' owner-farmers. With the ideologies of democratization and anti-Communism, it downplayed scale optimality and community-based

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[21] This instruction note (SCAPIN-411) states: In order [...] [to] remove economic obstacles to the revival and strengthening of democratic tendencies, establish respect for the dignity of men, and destroy the economic bondage which has enslaved the Japanese farmer to centuries of feudal oppression, the Japanese Imperial Government is directed to take measures to insure that those who till the soil of Japan shall have a more equal opportunity to enjoy the fruits of their labor. [...] The purpose of this order is to exterminate those pernicious ills which have long blighted the agrarian structure of a land where almost half the population is engaged in husbandry (Kitamura 2016). This image of Japanese landlordism was also shared through the mass media, as the New York Times coverage (October 7, 1945) captures "the semi-feudal system of land tenure" as one of the four pillars supported the Imperial structure, which "provided the Empire with its stubborn peasant soldiers who fought willingly to the death in the swamps of New Guinea and the mountain caves of the Philippine hinterland."

[22] In addition to scholars (Hoshino 1988), the media shared this point. The article in the New York Times covers the Soviet's criticism on the bill in which Japan insufficiently incorporated Soviet's proposals, and the press's questions to the Soviet's delegate about whether the Soviet's criticism contains Communist propaganda (New York Times, August 25, 1946).

[23] The initiative of land reform, which Japan's government first attempted under the Land Reform Bill to prepare for as a revision of the Farmland Adjustment Law of 1938, is called "the first land reform" among the scholars and policy-makers in Japan, although it was never implemented (Kawagoe 1999). In contrast, the one, which was executed after the external interventions as an alternative version, is called "the second land reform."

farming in order to disassemble Japan's fascism to which landlordism, organized in agrarian communities, was considered to have contributed (K. Noda 2006). When agrarian communities were populated and relied on labor-intensive farming, the provision of ownership to numerous small farmers would have enabled farmers to invest and commit to farming, leading to productivity improvement regardless of economies of scale (Kawagoe 1999; Kitamura 2016). Japanese politicians, who sought to establish a political base with a greater number of votes in agrarian communities, legitimatized the altered form (Kitamura 2016; Ikeda 2016; K. Yamashita 2014a).

The Japan's state initiative followed a series of previous policy changes and the landlordism that was already fraying even before the end of WWII. In response to the heightened peasant movements in the 1920s, the government had put in place laws and programs to intervene in tenancy conflicts and support tenants (e.g., Tenancy Conciliation Act of 1924, Owner Farmer Creation Support Program of 1925) (Wataya 1952; K. Noda 2006). Following another series of peasant struggles during the Showa Depression (1930-1931)[24] and the wartime regime, the government enhanced these policies through control legislation (e.g., Farmland Adjustment Act of 1938, Rent Control Act of 1939) (Wataya 1952; K. Noda 2006; K. Sato 2005). In the prewar and wartime regimes, these responses did not always give complete advantage to tenants due to the reactionary forces of landlords, as observed in the Tenancy Conciliation Act that was established through compromising with landlordism (Kurumisawa 2003). Nevertheless, with the rise of small owner-farmers, the number of landlords owning farmland larger than 50 ha had decreased since the 1920s (K. Noda 2006; T. Morita 2017b).

[24] The Showa Depression (1930-1931) was the great depression occurred in the aftermath of the World Depression that started in 1929.

The prewar decline in landlordism contradicts the dominant image of a monolithic, feudalistic and suppressive agrarian society: hierarchical landlord-tenant relationships governed farming villages and families.[25] The farming village community, called *mura* in Japanese, was the target of denunciation for postwar democratization. This was based on the understanding that *mura* sustained landlord-rule and nurtured grassroots fascism by suppressing personal independence and that it underpinned the imperial state through producing and procuring human and material resources for wars (Kurumisawa 2003; Furukawa 2012). Likewise, farming families, called *ie*, were also the target of the reform. They were perceived as a feudalistic and patriarchal system that fostered the familistic imperial system and militarism (Tama 1996; Sugioka 1994; Kunio Ishihara 1992).[26] Some scholars argue that horizontal communal relationships reinforced the vertical familistic relationships (e.g., landlord-tenant relations, cognation, fictitious filiation) by justifying the top-down orders under the guise of the communal peace and order (Ushiomi et al. 1957). However, other scholars consider *ie*, *mura,* and the relationships between them as being not necessarily oppressive but diverse and dynamic.

Farming village communities (*mura*):

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[25] The concept of "*mura*" is largely understood negatively even today, as represented by the use of the term "nuclear *mura*" (*genshiryoku mura*), which suggests that the stakeholders of nuclear power (e.g., companies, scientists) developed an insular community (i.e., *mura*) isolated from the external world and thus led to the Japan's 3/11 disasters following the Great East Japan earthquake and tsunami in 2011 in the absence of any appropriate preventive measures (Matsuzawa 2016). As such, the term generally connotes the "closed," "conservative," and "falsely egalitarian" Japanese society to be overcomed (Kurumisawa 2003). Likewise, the concept of "*ie*" is still widely viewed as the one lingering "outdated" and "vicious" habitude, which should be modernized or correctly educated (Nagano 2004).

[26] Japanese agrarian sociology developed the theory of families and communities, called the *ie-mura* theory, to define the Japanese agrarian society. The theory developed based on the empirical research on the agricultural villages in the late 19th century and the early 20th century to explain the logic and structure of Japanese village communities (i.e., *mura*) in terms of the vertical and horizontal relationships of families (i.e., *ie*) (Matsuoka 2011). It has developed since the prewar era in Japanese agrarian sociology, but expanded in the 1950s in the wake of the social demand to democratize the agrarian society, which presumed to be semi-feudalistic building on the prewar landlordism (Y. Kawamura 1986).

Farming villages have played a significant role in governing farmland. Although different scholars and disciplines have developed different terms and concepts, the literature considers the prototype of a farming village community as what evolved during the early modern era (i.e., the late 16th century to the late 19th century) (Matsuoka 2011; Matsuzawa 2016).[27] With the character of top-down and bottom-up duality, the prototype (hereafter called an early-modern village or *mura*) seems to be still valid to explain contemporary Japanese farming communities.

The early-modern villages appeared upon the reform of centralizing power at the beginning of the era and stabilized as autonomous communities through the independence of small farmers during the 17th century (Ohkama 2006). In an effort to deter the intermediate exploitation by local powers (e.g., powerful farmers, temples and shrines, and manor owners), the central power conducted nationwide land surveys (*kenchi*) to assure one farmland for one farmer.[28] It evaluated the volume of rice yield from each village by drawing its boundary to measure the "gross village product" (*mura daka*) and thereby developed the "one land for one lord" policy where each farmer entitled to a piece of land contributed to village-wide agricultural produce (Tama 1996, 11). This policy gave rise to a 'local self-governing system of taxation' (*mura-uke sei*) by which a feudal load (*ryoshu*) commanded villages to bear collective

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[27] Three major terms have developed with similar concepts: 1) natural villages (*shizen-son*), 2) autonomous villages (*jichi-sonraku*), and 3) feudal administrative villages (*hansei-son*). The term of *shizen-son* coined by Eitaro Suzuki, an agrarian sociologist, has been popularized to conceptualize a community as a system having a social identity to its naturally-evolved social cohesion independently and distinctively from an administrative local public entity (Matsuzawa 2016). The theory of *jichi-sonraku* established by Hitoshi Saito, an agricultural economist, highlights the enduringly autonomous nature of Japanese agrarian villages that have historically nurtured mutual trust among the members (Matsuzawa 2016; Arimoto 2006). These two theoretical concepts commonly recognize that the villages formed in the early modern era have functioned as a community even after the administrative reforms following the Meiji Restoration in 1868. This prototypical villages are also called *hansei-son* (i.e., villages under the *han* or domain system) by many others including those in agrarian sociology and geography (Matsuzawa 2016; Satoh 1991).

[28] The reform began with the first nationwide land survey called *Taiko Kenchi*, which was conducted in the late 16th century under the leadership of Hideyoshi Toyotomi, a preeminent warrior regarded as Japan's second great unifier (Holmes 1988; Tama 1996). Through this initiative together with the sword hunt (*katana-gari*), which was conducted under the policy for separation of warriors and peasants (*heinobunri*), farmers became tied to farmland, while the social class of farmers became separated from warrior class (*samurai*) (Tama 1996; Ohkama 2006).

responsibility for procuring forced labor and paying an in-kind agricultural tax (e.g., rice) (Tama 1996; Matsuzawa 2016).[29] Under this taxation system, a village developed a self-governing institution where farmers made collective decisions, had a division of labor, and chose village officials in open elections.[30] At the same time, farm families constituting a village became largely equalized through agricultural development and peasant movements over the 17th century (Tama 1996; Ohkama 2006). Thus, a village evolved into not only an accredited unit of tax payment, but also a self-governing body to organize and discipline its constituents in both farming and living (Matsuzawa 2016). Each family held rights and responsibilities to their farmland, whereas a village shared land and collectively managed natural resources such as water.[31]

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[29] Rather than a top-down force to develop the early-modern villages, Toishi (2013) and Noda (2005) point to the horizontal relationships between the villages. According to Toishi (2013), the villages, which used to compete and fight with each other often by force of arms in the Middle Ages (between the late 12th and late 16th centuries), sought to avoid the enormous cost arising from the inter-village conflicts, and shared the responsibilities for work assigned by the authorities in accordance with demographic and generational changes. On the other, Noda (2005) notes that the villages in the Middle Ages often confederated to protect their interests, while those in the early-modern era also federated to control water particularly along a large river.

[30] According to Ohkama (2006), the early-modern villages were stabilized over the 17th century. Although the size and structure were diverse at the beginning of the early modern period, the communities underwent restructuring of their functions and boundaries based on the local self-governing taxation system (*mura-uke sei*) for managing farmland and households, and implementing administrative projects. While originating from the diverse communities consisting of different types of farmers and farm families (e.g., subordinate villagers and large stepfamilies), the constituents became largely equalized through the independence of small farmers. This independence progressed through branching of subordinate farmers with the aid of land clearing and improved farming productivity, and through the infighting that developed into accusations against the vested interests and corruptions of village officials. Although the blood-based subordinate relationships existed between a head family (*honke*) and branch families (*bunke*), the rights and responsibilities of farm families became largely equalized in these processes.

[31] The early-modern villages often used and managed forests and moors as a commonage of one or several villages to procure manure for their collective agricultural tax levying and payments (Matsuzawa 2016). Likewise, some villages developed the system to regularly or occasionally recalibrate paddies to level soil fertility, suggesting that villagers shared the notion of collective ownership of farmland (Matsuzawa 2016). This self-governing system assured the unity of a community involving work, life and religion — from the joint tax liability to the collective natural resource management involving water rights and commonage (Tama 1996; Ohkama 2006). The code of conduct featuring self-sufficiency and self-binding control (Yoda 1983; Ohkama 2006), became a norm through the mutual surveillance and sanction under the condition of the limited mobility of populations (Ohkama 2006). For instance, the rice planting was carried out on specific dates that were determined in each *mura*. Advancing in years was not a personal matter but a matter of *mura* (*mura goto*) as a child born in a *mura* got on in years only after giving notice to the elder in the *mura* (Furukawa 2012).

In the years following the Meiji Restoration in 1868, the early-modern villages experienced two major changes in respect of the administrative and property systems.[32] First, in its haste to restore a powerful state, the Meiji government carried through a series of administrative reforms and established the Municipal Government Act in 1889.[33] The enforcement of this act accompanied the nationwide municipal mergers and dissolutions, called the Great Merger of Meiji (1888-1889). It resulted in the emergence of cities in the metropolitan areas with, on average, five early-modern villages merged into one new village (Saitou 2014; Matsuzawa 2016). Although the state's rationale for the reforms has been explained differently by different scholars,[34] the government continued mergers and dissolutions of common village properties and religious symbols even after the Great Merger reforms (K. Noda 2005; Matsuoka 2011).[35] Allowing for heterogeneity across the country, the early-modern villages retained the

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[32] Meiji Restoration (*Meiji ishin*) is known as the event that restored practical imperial rule to Japan in 1868 under Emperor Meiji. Following the fall of the longterm feudalism, it placed on the key agenda both the political and economic reforms to promote modernization and capitalistic development of the state (Shimamoto 2002).

[33] Building on the Census Registration Act, which was established in 1871 to register all the citizens, the Meiji Government first established the Large/Small Administrative Districting System (*daiku-shoku* system) in 1872 to restructure the previous local administrative unit (i.e., towns and villages) into the new system where the central government controls the prefectural governments, the large districts, and then small districts hierarchically to ensure that the central government policy efficiently reach out the local units (Saitou 2014; Arakida 1999). This was followed by several reforms including the passage of the Three New Acts (*Sanshimpo*; including the new four-district system, the rule for prefectural assemblies, and the taxation guidelines) in 1878, and the establishment of Allied *Kocho* (district heads) Administered Districts in 1884, resulting in the enactment of Municipal Government Act in 1889 (Matsuoka 2011; Arakida 1999).

[34] For instance, Noda (2005) argues that the Meiji government intended to dissolve the early-modern villages to create a nation state, in light of the political risk of their highly autonomous nature as well as their limited economic and social capacities to implement new public projects for modernization and industrialization (e.g., schools, hospitals, industrial roads, and railways). On the other, Arakida (1999) argues that the Meiji government designed the administrative reforms to ally and consolidate the early-modern villages not only to streamline the administrative practices but also to take advantage of their organized nature.

[35] Against the backdrop of the First Sino-Japanese War (1894-1895) and the Russo-Japanese War (1904-1905), which let the government reinforce the local government finance, the Meiji government integrated the forests owned by the early-modern villages into the municipal permanent properties (*Burakuyurinya-toitsu-seisaku*)(1910-1939) (Yano 2007; Kasahara 1998). Also, the government launched the policy of 'Shrine Merger' (*jinja-goshi*) with the banner of one shrine in one municipality (1906-1918) for mergers and dissolutions of shrines that had been enshrined and anchored at each early-modern village (Morioka 1975; Torigoe 1991).

spirt of self-governance in many cases (Matsuzawa 2016; K. Noda 2005).[36] Yet, under intensifying state control prior to the end of WWII, the early-modern villages encountered tensions between subordination and autonomy, as observed in the cases of village heads' abdication for personal reasons and peasants' non-cooperation on state projects.[37] Importantly, as experienced by farmers who internalized the ambivalence of personal aspiration versus social responsibility,[38] the villages were evolving through negotiating their role in governing farmland.

Another reform was the Land Tax Reform (*chiso-kaisei*) (1873-1881), through which the Meiji government authorized private land ownership and abolished the village-based self-governing system of taxation (*mura-uke sei*) (Matsuoka 2011; Matsuzawa 2016; Arimoto 2005).[39] As part of the fiscal reform to establish the modern state, this involved changes in both measurement and taxables to accord with the evolving commodity economy (Shimamoto 2002; Kurauchi 1990). The measurement changed from the in-kind, rice-assessed tax (*koku-daka sei*) to

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[36] The early-modern villages remained as a residential organization, called *Oaza* in some regions such as Kinki and Hokuriku regions, but not in other regions like Kyushu, as the Study on Census of Agriculture and Forestry in 1970 by Sakane (2011) shows that the rate of concordance between an agricultural village and Oaza was 87% in Fukui Prefecture of Hokuriku region, and 5% in Kagoshima Prefecture of Kyushu region (Toishi 2013). Tashiro (2008) points out that the studies of agricultural history often confuse the agricultural villages in census terms (139,000 in 2010 Census of Agriculture) with the early-modern villages (63,000 of autonomous villages) (K. Noda 2011).

[37] For instance, drawing on the wartime record of Chinai village in Shiga Prefecture, Furukawa (2012) highlights incidents in which the village heads consecutively abdicated their positions for personal reasons despite the position's cruciality to carry through state control, while the village tirelessly procured soldiers, materials, money, and labor forces for the war. Based on the case of agricultural policy implementation during the inter-war and wartime periods at Nishime Village (consisting of 10 early-modern villages) in Akita Prefecture, Ohkama (2006) illustrates the mismatches between the state order and the actual responses (e.g., lower-ranking farmers' non-corporation to the voluntary labor services without pay, and the tenants' voluntary support for the landlords rather than the state project), while the government reinforced the organized work of *mura* through the policy control and subsidies.

[38] Drawing on the discourse of the young generation in rural areas in Japan (*Noson seinen*), Nozaki (1995) argues that agricultural fundamentalism (*Nohonshugi*), which was popularized during the period between the Meiji restoration and the end of WWII, emerged not simply from the anti-urbanism, anti-capitalism and anti-modernism movements of farmers, but in reaction to the ambivalent feelings of the rural young generation who accepted and yearned for modernism and modernization as both a heartthrob and an enemy.

[39] With reference to Fukushima (1968), Ohmori (2001) notes that the Land Tax Reform (*chisokaisei*) officially started in 1873 with the promulgation of the Land Tax Reform Act following the issuance of the initial land certificates in 1872, and officially ended with the closure of the executive office of the reform in 1881, although the new taxation after the reform was already introduced in 1876.

the monetary, uniformly fixed-rate tax (*kin-no sei*) to better accommodate the shift from the self-sufficient economy to the commodity one already underway in the Edo era (from the late 16th century to the middle 19th century) (Tama 1996; Ohkama 2006; Nakamura 1987; Matsuzawa 2016).[40] At the same time, it changed the taxables from the rural land under the feudal system (i.e., the land procuring agricultural tax through the local self-governing taxation system) to all the land under the state to deny the feudal lords' rights to land and to ensure levying rural and urban land.[41] The feudal government had banned the sale of farmland since 1643 to ensure that small farmers are as productive as possible to be levied in-kind taxes (Toshiyuki Miyazaki 1977).[42] However, the reform allowed for the market-based transactions of farmland under private land ownership, while transferring both tax-payment responsibility and farmland

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[40] The previous system standardized the land value with the actual rice yield of a given plot of land (*koku-daka*) that was defined by the land surveys (*kenchi*), and determined and levied the amount of tax, which varied depending on the different yields and tax rates (*men*) across different feudal domains and villages (Hayami 1982; Arimoto 2005). In this system, the tax was paid in the form of rice and other crops, collectively based on the 'gross village product' (*mura daka*) through the village-based local self-governing taxation system (*mura-uke sei*), while it was ultimately levied on the principal farmers (i.e., officially recognized farmers as landholders (*nauke nin*) responsible for taxpaying) whose names were registered on the land register (*kenchi-cho*) (Arimoto 2005; Kurauchi 1990). On the other, the new system determined land value through the new land survey, and levied a uniform proportion to that value (started with 3% but reduced to 2.5% later) on a landowner who was given a certificate of land title (*chiken*) and was responsible for individual payment in cash (Ohmori 2001). Although the land survey initially standardized the land value with the yield (Makino 2016), the new system allowed the land value to be determined in the land market separately from the variation of rice prices (Ohmori 2001).

[41] The Land Tax Reform denuded the land ownership of multiple actors by divesting the feudal lords of their power of agricultural tax collection (Kurauchi 1990; Ohkama 2006), although their power transformed into the capitalized pension bond (*kinroku-kosai*) that allowed some of those in the high-ranking warrior class and the peerage to invest in buying land and establish the national banks (Wakui 2011). The issuance of land certificates imposed land tax also on urban land that used to be free from taxation and freely bought and sold in the Edo era (Shimamoto 2002; Makino 2016).

[42] Given that the best possible way to secure the agricultural tax in the early modern era was to secure small farming, the feudal government issued a permanent prohibition on the sale of arable lands (*Denpata-eitai-baibai-kinshirei*) in 1643 to support and maintain small farming in response to the increase in farmland sale by small farmers (Toshiyuki Miyazaki 1977).

ownership from ‘cultivators’ to ‘landowners’ (Komori 1996; Shimamoto 2002; Ohmori 2001; Wakui 2011).[43]

This reform aligned the policy with the commodification of farmland that had been increasingly practiced, but changed the rights and responsibilities of *mura* to farmland management. Even in the late 17th century, the feudal government endorsed the foreclosure of farmland in accordance with the increased transactions in the form of pawning a piece of land in exchange for loans, which was not banned (Tama 1996). Consequently, landlordism had developed along with the amplifying accumulation of farmland under landlords, while the paddies had been gradually segmentalized and scattered through spontaneous transactions (Tama 1996). Nevertheless, the transactions had been based on the shared notion that farmland belonged to the farming families and the farming villages. For instance, the sold land was restituted to original landholders after a certain period, and the land that lost its holder was often held under the village’s management (Kotani 2007; Makino 2016; Ohkama 2006).[44]

However, the reform led to the expansion of ‘parasitical’ landlords who farmed out for ‘rent' rather than production and built wealth by exchanging ‘in-kind’ high-rate rent for off-farm

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[43] Prior to the execution of the reform, the Meiji government made legislative arrangements to establish private land ownership. First it authorized owners to freely use land and revenue from it by proclaiming the circular notice on arbitrary farming of arable land (*Denpata-kattesaku-kyoka*) in 1871, and then authorized owners to freely dispose land by lifting the ban of the sale of arable lands in 1872 (Komori 1996; Shimamoto 2002). Then, it changed the taxpayers from cultivators (i.e., farmland users) to landowners (Ohmori 2001). At the same time, it provided land ownership for landlords including owner-farmers while excluding tenants (Wakui 2011).

[44] In the early modern era, the purchase and sale of land were practiced in the forms of a limited-term sales contract called *Nenki-uri* (i.e., selling the usufruct of land but returning it to an original landholder after an agreed time period such as 10 or 20 years), a conditioned sales contract called *Honsen-gaeshi* (i.e., an original holder bought back the land whenever the sales value was repaid), or a foreclosure custom called *Shichi-chi ukemodoshi kanko* (i.e., an original holder received back the pawned land as many as years later if the principal was repaid) (Kotani 2007; Makino 2016). Although such transactions were made in units of families (*ie*), the early-modern villages monitored and accommodated the transactions through the village-based systems including the village-based registration and approval of the pawnage of land, the village-base agricultural tax collection, the village-based mutual financing associations (called *mujin-ko*), and the practices called *Hyakusho no atoshiki-hozen* (i.e., the land became under the management and commonage of a village when it lost its holder until someone became available to appropriately manage and use it) (Ohkama 2006; Kotani 2007).

capital (e.g., silk, railroad, and spinning industries) (Furushima 1958; Takashi Watanabe 2007).[45] Along with a widening divide between landlords and tenants, the farming village communities experienced the Matsukata Deflation (1881-1884) through which many farmers failed to secure revenue to pay the monetary tax due to falling prices. Consequently they sold their farmland, resulting in further accumulation by landlords (Kurauchi 1990; Makino 2016). Yet, the self-governance capacity of *mura* sustained and enabled the rollback of parasitical landlordism, leading to the inclusion of customary commonage of forests and water use in the new legal system (Shimamoto 2002; Kurumisawa 2003; Ohkama 2006).[46] At the same time, some villages observed the owners' strong expression about private ownership and experienced conflicts between new owners and other members of the villages (Matsuzawa 2016).[47]

Farming families (*ie*):

Another key institution in governing farmland is farming families. As a prototype of farming families, the literature hints to a public and private duality and a dependent and independent

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[45] The 'parasitical' landlordism emerged around the beginning of the 18th century and became ubiquitous in the Meiji Era (1868-1912) (Furushima 1958). The parasitical landlords were different from the large landowners called *tezukuri jinusi* who became widespread by the early days of the 18th century but largely decreased by the end of the 19th century. The former farmed out most of their land to build up wealth from rent that was collected in agricultural products but changed into money in the market, whereas the latter generally farmed out their 'spare' land to neighboring small farmers (Furushima 1958; Takashi Watanabe 2007).The former has been largely characterized as being "feudalistic" and "parasitical" in the sense that the landlords exploit small peasants for the sake of off-farm capital, resulting in much lower living standard of peasants who relayed on farming but often worked on the side or moved to casual labour (Akimoto 2000; Furushima 1958; Takashi Watanabe 2007).

[46] Besides the general trend of fading parasitical landlordism since the 1920s (Shimamoto 2002), Kurumisawa (2003) highlights cases where the villages often collectively controlled the behaviors of both landlords and tenants and sometimes even conformed landlords with the village's rules in the period between WWI and WWII. Also, Ohkama (2006) notes that the customary practices of commonage of water use and forestry in the early modern era were incorporated in the newly established legislative system, while pointing to the historical evidence in which the autonomous system of *mura* controlled the execution of new private property ownership in the Meiji period.

[47] Matsuzawa (2016) points to cases in the early Meiji period where local farmers, who intended to clear the land without prior consent of the owners in the state-owned and imperial estate, frequently conflicted with local powers who intended to officially manage land with the consent of the owners. With reference to a study showing the relaxation of the village-based governance in conserving natural resources in the early Meiji era, he alludes to the declining ability of the early-modern villages to collectively manage natural resources, along with the demise of the local self-governing system of taxation (*mura-uke sei*).

duality, while underscoring their integrative nature. Farming families have been largely conceptualized as a trinity turning over generations: 'family property' (*kasan*), 'family business' (*kagyo*) and 'family name' (*kamei*) (Toishi 2016; Hasebe 2016; Arimoto and Nakajima 2013). By the end of WWII, the pattern of handing down this trinity in many regions became the primogeniture of a stem family by which the family headship and the rights to inheritance of the entire estate were passed down, typically from eldest son to eldest son (Hirai 2003; K. Noda 2011). This pattern has not disappeared over the postwar years, but metamorphosed as discussed later (Mitsuyoshi 1983).

The prototype of a farming family became common in the late 18th century (Hasebe 2011; 2016). With the development of the local self-governing taxation system (*mura-uke sei*), the farm families, including small ones, became a taxpayer unit called a farmer stock (*hyakusho-kabu*) that exercised rights to natural resource use (e.g., water and commonage) and rendered the tax-payment responsibility (Toishi 2013; Tama 1996). At the beginning of the early-modern era (the late 16th century), the form of families was yet to be standardized, as it included nuclear families, step families, and those involving subordinate members (e.g., lower class peasants called *Nago* or *Kakae*) (Tama 1996; Hirai 2003). These families often adopted (unrelated and related) individuals to collectively work and maintain the status in a village over generations (Toishi 2013; Tama 1996; Hosoya 2005). During the 16th and 17th centuries, many of these families branched through dividing an inherited property, resulting from farmland development and population increase (Tama 1996; Hirai 2003).[48] But since the end of the 17th century, the

[48] There was a customary practice that one of the children stayed at the first home with his or her parents, while the family estate was divided equally among the children in the 16th-17th centuries when the new field development together with the advancement of rice-growing techniques largely progressed (Tama 1996; Hirai 2003).

inheritance system changed from equal division to the primogeniture in response to the low economic development under the orders of 'restriction on parcelling up an estate' (*bunchi-seigen-rei*), which were issued by the feudal government and lords in the late 17th century (Tama 1996; Hirai 2003; F. Akiyama et al. 1977).[49] As a result, the 'family name' (*kamei*) associated with the family status (*kakaku*) became a key component to secure and pass down the 'family property' (*kasan*) so as to share the limited environmental resources for farming as 'family business' (*kagyo*) (Tama 1996; Hirai 2003; Toishi 2013).[50]

As a unit of governing farmland, the farming families failed to always secure individuals' freedom but secured their living. In the absence of social security, the families had to endure the unequal sharing among members that undermined their freedom of choice (Kataoka 2007). Family members had no other choice but to live together as an extended financial family and rely on the family property (Kataoka 2007; Tama 1996). This collective life security applied not only to a single family but also to a cognate family (*dozoku-dan*), which included a head family (*honke*) at its center surrounded by branch families (*bunke*) in order, to support each other in production and consumption (Hasebe 2011). To secure individuals' livelihood in accordance with the norm of the villages, the primogeniture of a stem family inheriting the trinity became the code of conduct.

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[49] Following the land clearing in the 17th century, farming communities faced low economic development resulting from the limit of land clearing, the saturation of technological development, and repeated natural disasters and famines since the beginning of the 18th century (Tama 1996; Hirai 2003). Feudal government and lords started to issue the orders of 'restriction on parcelling up an estate' (*bunchi-seigen-rei*) to inhibit further subdivision and maintain the existing small farms since the late 17th century (Tama 1996; F. Akiyama et al. 1977). In response, farming village communities tightened the limitation on natural resource use, while farm families changed the inheritance customs and controlled their marriage and birth rates (Tama 1996).

[50] Through the change in inheritance, the family status (*kakaku*) gained a foothold, whereby the 'family name' (*kamei*) became more meaningful to secure stable access to the shared natural resources over generations by following the village rules (Hirai 2003; Tama 1996; Toishi 2013). The notion of family property also developed to sustain the farming and thereby livelihoods in an economically extended three-generation family (Hirai 2003; Tama 1996).

This prototype underwent an institutional reform with the Meiji Restoration, leading to a systematic change in the trinity. In the process of centralizing state power while negotiating with the great world powers, the Meiji government uniformly institutionalized all types of families (including farming, fishing and merchant, and warrior families) in the Family Law in 1898 as part of the Civic Code (1896) (Hosoya 2005).[51] For this, the government drew on the 'patrilineage' primogeniture of a stem family which had developed in the elite class (Hosoya 2005; A. Hashimoto and Traphagan 2009; Koguchi 2012; Nakagawa 2003). Originating from the patriarchal system of the aristocracy who leveraged marriages for political purpose, the elite class, who had disengaged from primary production, emphasized the headship succession. This secured their prestigious status and the associated earning opportunities within their kins (A. Hashimoto and Traphagan 2009; Hosoya 2005). Following the elite prototype of families as blood relative communities, the government prescribed the family institution as the 'patrilineage' primogeniture by legitimizing the rights to family headship and inheritance accruing to eldest son (Nakagawa 2003; Kuwabara 2009). Besides the legal codification, the government promoted the Confucian ethics of loyalty, filial piety and moral indebtedness attached to the families through the school and social education, leading to the ideological diffusion of the familistic nation-state (Kuwabara 2009).

The reform of farming families from pragmatically developed to politically institutionalized ones led to internal mismatches in regard to gender and economic production. The succession of the family headship and the entire estate was not discriminative by gender in the previous institution. For instance, in Tohoku and Northern Kanto regions, the custom of

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[51] To amend the unequal treaties with the great world powers, the government was urged to establish westernized laws and systems including the Civic Code (Chiba 2009).

succession by the firstborn child regardless of gender was widely practiced to allow for earlier succession before the parents lost their physical strength to farm (Hosoya 2005).[52] However, the Family Law defined women as being incompetent in managing and inheriting the family property, intensifying the domestication of women and the sexual division of labor (Nakagawa 2003; Yonemura 1991; A. Hashimoto and Traphagan 2009). The loss of women's inheritance rights preceded the lowering status of women in farm families where their labour was associated with household work that was not socially recognized (Nakamichi 2001). Yet, while actual practices were sometimes inconsistent with the prescriptions, farm families internalized the changes in the members who experienced legislative and ideological subordination but aspired to their own individual fulfillment of life.[53] For instance, farm housewives were often exploited for both farming and domestic work under the economically lower status (Nakamichi 2001; A. Hashimoto and Traphagan 2009), whereas they became aware of the quality of life through the infiltration of mass entertainment (Nozaki 1995).[54]

The reform legally separated the 'business' component from farming families. Under the industrial policy called "Encouragement of New Industry" (*Shoku-san kogyo*), the government promoted the capitalistic business management based on commodification of labour (Hosoya 2005). To commercialize labour, the government prescribed the business component in the

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[52] In the early modern era, the level of female servitude as well as the degree of patriarch in farming families varied depending on the family size and the family rank (Nakamichi 2001). In small farm families, the patriarchal power was weaker to sustain a family where females supported livelihoods through apprenticeship or daily employment. In high-rank farm families, a family head took main responsibility for managing and sustaining the family business, while females had a certain level of authority to manage, process and consume farm harvest and supervise housemaids.

[53] Women sometimes took responsibility for family headship and succession due to the lack of children or the loss or sickness of husbands especially in the wartime (Nakamichi 2001; A. Hashimoto and Traphagan 2009).

[54] Kuniko Itagaki investigated the livelihoods of agricultural villages in the 1930s and 1940s by analyzing a series of monthly family magazines entitled with *Ie no Hikari* (Light of Home), and found that the farm housewife population changed their consciousness in response to various movements seeking for modernization of farm families when a variety of mass entertainment penetrated farming communities (Nozaki 1995).

Commercial Code (1899) and the remaining aspects in the Civic Code that also stipulated individual ownership of family property (Hosoya 2005). Previously, both the productive and reproductive functions of farming were integrated in a family, wherein the ownership of family property was maintained and inherited canonically (Hosoya 2005; Yonemura 1991). With the new legislation, the government urged farm families to pursue individual economic independence and sustain the patriarchic family system, though these were contradictory goals (Masuhara 1975).

The contradiction, which increasingly came to light, was tailored through ideological edification (Hosoya 2005; Kuwabara 2009). Yet, the mismatches between individuals and a family as well as between families and a village became more prominent towards the end of WWII (K. Noda 2006).[55] The privilege of the eldest sons associated with farmland became disadvantageous in terms of lack of freedom or inaccessibility to urban wealth, as other members (e.g., second and third sons) migrated to cities for better economic and cultural opportunities (K. Noda 2005). In reaction, the heirs remaining in the villages initiated movements such as peasant disputes and cooperative movement for farm families (K. Noda 2005). Such contradictions and ambivalent feelings constituted the internal forces to drive the changes in these own institutions and then the postwar reform.

2.2 Institutional Changes and Successive Models

Prior to the emergence of the Farmland Bank (FB) program, the first postwar model persisted in the 1950s, but then institutional changes delivered two successive models. The second model

[55] For instance, the mismatch was observed in the wartime when farming villages were struggling under the state control whereas farm families benefited from the special demand of the wartime economy (K. Noda 2006).

developed between 1960 and 1984. This was followed by a third model that evolved between 1985 and 2004. Throughout these three periods, the political institutions changed in the following respects: 1) the goal of agricultural policy; 2) the principle of farmland management; 3) the concept of farmland; and 4) the approach to farmland governance (see Table 2.1).

Beginning with the reformative goal, postwar agricultural policy increasingly prioritized productivity and then broadened its scope to include industrial and rural development to attain agricultural multifunctionalitiy. In accordance with these changes, the primary target moved from a ‘farm family' as an integrated unit of farming and living to a 'farm management entity’ where labor is segregated from family life, while exploring new types of entities capable of efficient and stable farm management. Correspondingly, the principle of farmland management changed from the ‘owner-farmer principle’ (*jisakuno-shugi*) to the ‘cultivator-oriented principle’ (*kosakusha-shugi*), increasingly seeking the ‘liberalization’ of farmland transactions and allowing for the involvement of new actors. Likewise, the central concept of farmland expanded from a farm family’s property to the commons of a farming village and then of a broader society. The governance approach to farmland shifted from state control of individual tenancy arrangements to decentralized planning for collective tenancy arrangements.

Table 2.1 Political Institutional Changes across the Three Periods

	First Period (1945-1959)	**Second Period (1960-1984)**	**Third Period (1985-2004)**
1) The goal of agricultural policy	Reconstruct the nation as a democratic state (i.e., reformative policy): "to stabilize the status of cultivators and boost domestic agricultural production"	Improve agricultural productivity (i.e., industrial policy)	Improve agricultural productivity and fulfill agricultural multifunctionalitiy (i.e., two-wheel policy, including industrial and rural development policies)
2) The principle of farmland management	'Owner-farmer Principle' (*jisakuno-shugi*): 'farm families' of owner-farmers	'Cultivator-oriented principle' (*kosakusha-shugi*): 'economically-viable farming families' (*jiritsu-keiei-noka*) (1961-), 'core farm families' (*chukaku-teki noka*)(1967-)	'Cultivator-oriented principle' (*kosakusha-shugi*): 'certified farmers' (*nintei nogyosha*) as efficient and stable farm management entities, village-based farming organizations (*shuraku-eino soshiki*)
3) The concept of farmland	A farm family's property	A commons of a farming village	A commons of a broader society
4) The approach to farmland governance	The centralized control of individual tenancy arrangements: the state as a primary authority for command and control through agricultural committees	The decentralized planning for collective tenancy arrangements: the municipal governments as implementation agencies to coordinate with farming villages	The multi-leveled inducement for collective tenancy arrangements: the prefectural and municipal governments as planning and implementation agencies to coordinate with farming villages

The changes in farming villages and families across the country reflected the distinctive nationwide trends of the agrarian population for the three periods (see Table 2.2). Numerically, the decrease in the farming villages, families and population started in the 1960s, following only minor changes for the first postwar period (1945-1959). The second postwar period (1960-1984) experienced a steady reduction of farm households following a rapid decrease in the agricultural workforce, together with the loss of the arable farmland area. The third postwar period (1985-2004) experienced a further drop of farm households and workforce and then the decrease

of farming villages, alluding to the dissolution of the societal frameworks of farming communities and population (Ouchi 2005).

Both quantitative and qualitative changes in the social institutions varied across regions. In the prewar era, the history of development of these institutions in Hokkaido and Southern Kyushu regions differed largely from other regions (Tama 2014). Also, agrarian demographic trends were different between the east and western parts of the country. The study focuses on the general trends to contextualize the emergence of the nationwide model of the FB program, though it points to regional distinctions. The following sections describe the political and social institutional changes for each of the three periods to show the narratives and mechanisms of the two successive models.

Table 2.2 Nationwide Agrarian Demographic Changes across the Three Periods

Stages and years		Farm households (1,000)			Average population per household	Agricultural workforce (1,000)	Farm household population		Farming villages	Arable farmland area (1,000 ha)
		Total	Full-time	Part-time			(1,000)	Decrease rate (%)		
1st	1950	6,176 (102.0)	3,086 (148.5)	3,090 (77.7)	6.10	16,133 (123.0)	37,670 (109.5)	-	- (-)	5,091 (95.6)
	1955	6,043 (99.8)	2,105 (101.3)	3,938 (99.0)	6.01	14,890 (113.5)	36,347 (105.6)	3.5	- (-)	5,183 (97.4)
2nd	1960	6,057 (100.0)	2,078 (100.0)	3,979 (100.0)	5.68	13,121 (100.0)	34,411 (100.0)	5.3	152,431 (100.0)	5,324 (100.0)
	1965	5,665 (93.5)	1,219 (58.6)	4,446 (111.8)	5.31	10,867 (82.8)	30,083 (87.4)	12.6	- (-)	5,134 (96.4)
	1970	5,402 (89.2)	845 (40.7)	4,557 (114.5)	4.92	9,334 (71.1)	26,595 (77.3)	11.6	142,699 (93.6)	5,156 (96.8)
	1975	4,953 (81.8)	616 (29.6)	4,337 (109.0)	4.68	6,700 (51.1)	23,197 (67.4)	12.8	- (-)	4,783 (89.8)
	1980	4,661 (77.0)	623 (30.0)	4,038 (101.5)	4.58	5,484 (41.8)	21,366 (62.1)	7.9	142,377 (93.4)	4,706 (88.4)
3rd	1985	4,376 (72.2)	626 (30.1)	3,750 (94.3)	4.53	4,851 (37.0)	19,839 (57.7)	7.1	- (-)	4,577 (86.0)
	1990	3,835 (63.3)	592 (28.5)	3,243 (81.5)	4.51	3,919 (29.9)	17,296 (50.3)	12.8	140,122 (91.9)	4,361 (81.9)
	1995	3,444 (56.9)	[428] ([20.6])	[2,224] ([55.9])	4.38	3,426 (26.1)	15,084 (43.8)	12.8	- (-)	4,120 (77.4)
	2000	3,129 (51.5)	[426] ([20.5])	[1,911] ([48.0])	4.31	2,852 (21.7)	13,458 (39.1)	10.8	135,163 (88.7)	3,884 (73.0)
	2005	2,848 (46.3)	[443] (21.3)	[1,520] (38.2)	3.86	2,703 (20.6)	11,001 (32.0)	18.3	139,465 (91.5)	3,447 (64.7)

Source: Census of Agriculture and National Census
Note: Figures in the square brackets [**] indicate the number of commercial farm households exclusively. Those in the round brackets (**) indicate the percentage compared to the data of 1960.

2.2.1 The first postwar period (1945-1959)

1) Political Institutions

Building on the land reform (1947-1951) that emancipated the peasants from landlordism, the first postwar model was implemented under the legal system stipulated by the Agricultural Land Act (ALA) of 1952 until its first amendment in 1962. Setting the 'owner-farmer principle' as a policy goal rather than as a means "to stabilize the status of cultivators and boost domestic agricultural production," the first model took a centralized approach by which the nation state disciplined farmland transactions to limit tenancy arrangements so as to hamper the revival of landlordism (Imamura 2003). Farmland was presumed to play "a social and public role" in serving the "commonweal," while the possession of farmland was to involve "a societal responsibility" (Shoji 2003, 195, 203). These perceptions allowed the state to intervene in farmland purchase and sale on extremely preferential terms for tenants and at a disadvantage for landlords. Yet, the first model bolstered the notion of farmland as the private property of an owner-farmer family by adopting measures to support and nurture family-run farms, where the de-facto family members' rights to ownership and use of farmland belonged to a family head (Imamura 2003).[56]

To ensure a public-and-private relationship of farmland, agricultural committees were given a role to implement the ALA by coordinating between the state's public interest and the farmers' private interest (Kurumisawa 2016). On the ground that farmers actively take part in farmland administration resulting from the land reform, the government established agricultural

[56] The ALA presumes that the family members' rights to farmland (ownership and use) belong to an owner-farmer (i.e., a family head) even when tenancy arrangements are made between family members within a family, or when some family members leave their family temporally (the fifth and sixth clauses of Article 2) (Imamura 2003).

committees with the Agricultural Committee Act (ACA) in 1951, thereby taking over the structure and functions of the farmland committees (i.e., the implementation agency of the land reform) (Shoji 2003; Yukitomo 2015). In common with the farmland committees, the agricultural committees became administrative committees (ADCOM) that followed the council system to authorize administrative regulations but were independent from general administrative bodies (Shoji 2003).[57] Under this system, agricultural committee members (elected by farmers) executed one-parcel-based farmland control at the municipal level as part of the state administrative works, while being responsible for pursuing self-management to promote local agrarian policy and to represent different farmers' interests at the local level (Shoji 2003; Kurumisawa 2016).[58] Thus, the agricultural committees were granted power and authority to embody the common interest of the local agrarian society by mediating between the public and private interests (Kurumisawa 2016).

2) Social Institutions

The first postwar period largely retained the self-sufficient, family-run farming until around the mid-1950s. Yet, the styles of farming and living changed into more mechanized and modernized ones with the rapid economic growth that began in the late 1950s. Despite agricultural price

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[57] In accordance with the advancement of capitalism and the increased complexity of the society, the ADCOM system developed particularly in the UK and US to grant quasi-legislative and quasi-judicial authorities to a committee so as to address the issues beyond the scope of the general legislative and judicial procedures (Shoji 2003). It was introduced to Japan as part of the postwar reform for administrative democratization.

[58] Prior to the establishment of the ALA (1952), a plan of more powerful public intervention in farmland management through the agricultural committees was proposed, but not materialized most possibly because the idea of stronger public intervention in private farmland was against the political climate of the day placing emphasis on private ownership in the capitalist society (Shoji 2003). At the national conference of prefectural managers on farmland, which was held in 1948, an agricultural bureaucrat, who felt the pinch of farm management segmentalization, proposed a plan to grant power to the agricultural committees to execute tenancy arrangements and coordinate the redistribution of the rights to farmland cultivation. However, his idea was incorporated in neither the ALA nor the ACA.

inflation in reaction to the food shortages after the war and then the stabilization crisis, production recovered around 1950 to its prewar level due to the stable procurement of fertilizer as well as an increased farm population.[59] Even after recovery, the government initiated policies to raise food production and self-sufficiency for rice and wheat and allow for the import of mechanical equipment and raw materials for the heavy chemical industry (e.g., Ten Year Program of Farmland Development of 1951, and Five Year Program of Increase in Food Production for 1953-1957) (Ushiyama 2005). The policy supported the owner-farmers through tax reduction for farm families, the rise in rice price, and land improvement projects to facilitate mechanization and chemicalization.[60] Together with good weather, these efforts resulted in the record yield of rice in 1955 amounting to 12.38 million tons, which was more than double the 1945 level (i.e., 5.9 million tons) (Ushiyama 2005).

Contrary to the progress in production, however, the government increased the import of wheat under the US-Japan Mutual Defense Assistance Agreement (i.e., Mutual Security Agreement: MSA) in 1954 and then substantially constricted the programs that aimed to raise food production.[61] Subsequently, the previously expanded agricultural workforce took a downward turn, precedential to the drastic shift of farming population (Ushiyama 2005). Along

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[59] The farming communities, particularly those engaging in rice production at urban fringes, experienced the agricultural inflation, which galloped in 1945 and 1946 with the sale of rice on the black market under the food shortage but ended in 1948 due to the political promotion of rice delivery to the government and the priority production approach to the industrial enterprise (*keish-seisan hoshiki*) since 1947 (Ushiyama 2005). Then, it entered into a slight recession under the influence of the financial contraction policy of the Dodge Line, which started from 1949 to gain economic independence of the postwar Japan, but regained the agricultural production capacity with the continued fertilizer procurement and the increased farm population (i.e., the number of agricultural workforce of 1947 increased by 3.25 million from 1940), resulting in the unit crop yield of 1948 equivalent to that of 1933, which was the highest level in the prewar era (Ushiyama 2005).

[60] For instance, the amendment of Staple Food Control Act in 1952 facilitated the rice price rise through the double rice price system in which the government made up the difference between the higher producer price and the lower consumer price than the market price (Ushiyama 2005).

[61] Following the conclusion of the US-Japan Mutual Defense Assistance Agreement in 1954, by which the US provided foreign food aid to resolve the excessive domestic production of agricultural products such as wheat, the Japan's government allowed the additional import of 800,000 tons of wheat (Ushiyama 2005).

with increasing mechanization and chemicalization, the farming lifestyle became gradually approximated to the urban one through urbanization and commercialization with urbanized areas encroaching on rural areas (e.g., the diffusion of television) (Ushiyama 2005).

Farming village communities:

Land reform changed the landlord-tenant relationship in ownership terms but did not change the self-governance capacity of a village, which was not necessarily determined by landlordism (Ushiyama 2005). The adaptive capacity of a village allowed for relatively peaceful execution of reform (Dore 2013; Shoji 2003).[62] Certainly, villages with differing initial conditions (e.g., the proportion of absentee landlords, the history of tenancy disputes, the scarcity of farmland) experienced the reform with differential impacts (e.g., change in the leadership, conflicts between landlords and tenants) (Ushiyama 2005; Shoji 2003). Yet, in many cases, a confederated network of several farming villages worked with a formally established farmland committee at the municipal level to coordinate different actors and facilitated consultation and decision-making to adapt the government-imposed uniform standards to local realities. Besides the pursuit of government regulations, examples of the village initiatives included: 1) combining the farmland exchange and consolidation with the ownership transfer to improve farming efficiency; 2) developing another two-level committee system that involved smaller customary villages and a larger administrative village to informally reconcile disputes and facilitate negotiations for a formal approval of a farmland committee; and 3) allowing resident landlords to aggregate

[62] Dore (2013, 173) evaluated the land reform in Japan as the one in which "the amount of blood spilt per acre was remarkably small" given the fact that "[a]ltogether only 110 incidents between landlords and tenants involving physical violence were reported in the two years 1947-8, and not one life was lost."

advantageous farmland plots in return for reduction in their owned farmland area (Ushiyama 2005).[63]

The rationale was to secure individuals' life through the medium of a farming family. Farm families behaved in solidarity with a village to exploit natural resources with rudimentary agricultural technologies. Otherwise they faced social sanctions, typically ostracism called '*Mura-hachibu,*' by which all the family members were denied subsistence rights in a village (Ushiyama 2005). This solidarity system was commonly perceived as a feudal system that should be reformed in the postwar state. Following instructions by GHQ, the government passed various democratization policies to weigh an individual more than a village community, whereby farming villages experienced both procedural and ideological reforms. For many of the procedural reforms including land reform and public elections, farming villages often leveraged their constitutive capacity to carry out the reforms by internalizing them as a *mura* events (*mura-goto*) in solidarity (i.e., discussing the issues among representative families, collectively dealing with the problems) (Ushiyama 2005).

Along with ideological reform, farming villages confronted a self-searching of identity, leading to the gradual renewal of their qualitative features. For instance, the program of Extension Services for Home Living Improvement (*Seikatsu-kaizen-fukyu jigyo*), which began in 1948 under the direction of GHQ and the US, facilitated the organization of "Home Living Improvement Groups" to reflect on the conduct of farm families that had prioritized the 'public' sphere over the 'private' one and to rationalize the reproductive process of workforce for

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63 Prior to the active execution of the land reform, a considerable number of landlords divested tenants of farmland (4.2% of the total tenanted area as of August 1st 1945 was divested by March 1st 1949) (Shoji 2003), whereas the limited number of such cases came to the surface as disputes (23,809 out of the estimated 250,000 cases between the end of WWII and June 11th 1946) (Ushiyama 2005). Most of these divested cases were considered to be tolerated under the self-governing capacity of villages, while serving as a safety valve for the smoother execution of the land reform.

agricultural production (Ichida 2005).[64] The program encouraged the formation of voluntary 'clubs' for home living improvement, in clear distinction from the territorial groups associated with a general rule of full participation by all the families. These new groups sometimes faced friction with the existing territorial female associations. However, they exercised activities which often unchained younger females from the stifling relationships between a wife and her mother-in-law in a typical multigeneration farm family or encouraged females to speak on public occasions.

The rhetoric of free participation applied to the reform of agricultural cooperatives, but twisted its process. As part of the agrarian reform, Japan Agricultural Cooperatives (JA) came into being with the establishment of Agricultural Co-operatives Act (ACOA) in 1947 to develop a democratic system of agricultural cooperatives to be run and led by owner-farmers (Ushiyama 2005; Shimizu 2005; JA Project Team 2006). The JA built on the system of Agricultural Organizations (*Nogyo-kai*) established in 1943 as a control system mainly to deliver food to the government for war mobilization (Ushiyama 2005; Shimizu 2005).[65] Under GHQ instructions, the JA started as an autonomous vocational cooperative system following the ACOA rules of voluntary, open cooperatives, such as freedom of membership and withdrawal, and not-for-profit

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[64] To conceptualize this idea at the national level, some bureaucrats called for "surgical therapy" to overcome the smallness of farm production, and others argued for "internal therapy" to democratize the daily life and familial relationships of farmers by nurturing "farming thinkers" (Ichida 2005, 42). The latter argument was followed by the program implementation.

[65] The system of Agricultural Organizations (*Nogyo-Kai)* was formed through a merger of two systems: 1) Industrial Associations (*Sangyo kumiai*) and 2) Agricultural Associations (*No-Kai*). On the one hand, following the enforcement of Industrial Association Act in 1990, Industrial Associations were formed across the country as territorial cooperatives involving local small and medium farms rather than special vocational cooperatives (JA Project Team 2006). The system developed to include various projects such as public welfare works besides the initial credit businesses. On the other, beginning with the state project to disseminate agricultural technologies as part of the industrial policy of the Meiji Government, Agricultural Associations expanded nationwide to pursue and implement agricultural development policy upon the establishment of the Agricultural Associations Act (1899) (Shimizu 2005).

purposes (JA Project Team 2006).[66] Despite the initial plan to dissolve the Agricultural Organizations system dominated by landlords, its property and facilities were taken over to avoid fiscal problems for the JA (Ushiyama 2005; JA Project Team 2006). Furthermore, the JA allowed for provision of a quasi-membership for those not directly engaged in farming so as to secure their financial contribution to the JA, and thus featured a territorial cooperative rather than a vocational one.[67] To take advantage of collaboration of farm families for production and sale and daily consumptive improvement, numerous cooperatives were set up with an increase in membership in a short period of time (Shimizu 2005; JA Project Team 2006). Each cooperative served as a terminal organization of the food supply system to implement the projects of both the JA and the government, including the delivery of rice quotas and distribution of agricultural resources such as fertilizer (Ushiyama 2005; JA Hokkaido Chuokai 2016).

Farming villages went through another reform of the administrative system during the first period (1945-1959). Following the enforcement of Local Autonomy Act (1947) based on the postwar Constitution of Japan (1946), the nationwide municipal mergers and dissolutions, called the Great Merger of Showa (1953-1961), were pursued to fulfill the newly stipulated roles of municipalities in serving as a 'basic autonomous body' closest to residents (e.g., establishing and

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[66] In the process of the postwar agrarian reform, Ministry of Agriculture and Forestry (MAF) originally proposed the plan to adopt the farmers' compulsory membership to follow the previous practice for the Agricultural Organizations system and develop the four-level system where the cooperatives at the village level work with their confederations at the municipal, prefectural and national levels so as to fulfill the coordinated functions of production involving collective farmland management, farm production and cultural activities (Shoji 2003; JA Project Team 2006). However, this plan was rejected and modified through the negotiations with GHQ.

[67] Although the regular membership was limited to farmers to avoid dominant control by non-farmers, the quasi-membership was given to those not engaging in farm production to grant them all the powers other than a voting right (JA Project Team 2006).

managing schools, extinguishing fire) (Yokomichi 2006; Saitou 2014).[68] In particular, municipalities merged based on the population size of approximately 8,000 to streamline the foundation and management of junior high schools so as to minimize the financial drain on school management (Yokomichi 2006; Morikawa 2012). This Merger reduced the number of municipalities to about one third, while enlarging the size of each municipality wherein many towns and villages were merged into cities.[69]

Accordingly, municipalities changed their relationships with farming villages in the following terms: 1) the lowered representativeness of a farming village within a municipal administration; 2) the amplified political challenge to reconcile different interests among diversified industrial sectors; and 3) the enhanced sectionalism resulting from the jurisdictional subdivision of administrative work with the increased number of officials (S. Sato 1993).[70] Many agricultural cooperatives under the JA system conformed their jurisdictions with new administrative ones and implemented the relevant projects with a municipal agricultural section, deepening the sectionalism of the farming sector (S. Sato 1993). The reforms for agricultural cooperatives and municipal systems did not dissolve the de-facto structure of farming villages

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[68] The Great Merger of Showa was pursued with the endorsement of prefectural governors based on the decisions made at the municipal assemblies, differently from the legally-based forcible execution (S. Sato 1993; Yokomichi 2006). Yet, it was carried out under the strong leadership of the national government with the nationwide goal to reduce the number of municipalities to one third (Yokomichi 2006).

[69] The number of municipalities decreased from 9,868 in 1953 to 3,975 in 1956 and then to 3,472 in 1961(Yokomichi 2006). The share of the municipalities with the population below 8,000 decreased from more than 80% to less than 40% between 1953 and 1956 (S. Sato 1993).

[70] Following the GHQ direction to disband the neighborhood associations (*chonai-kai*) in urban areas and the farming village associations (*buraku-kai*) in rural areas as part of the local government reform for societal democratization, the Home Ministry issued the announcement to abolish these associations in 1947 (S. Sato 1992). Nevertheless, these associations remained in various forms, and through the Great Merger of Showa, became indispensable to fill the widened gap between the enlarged municipalities and residents to inform the residents and elicit their collaboration on administrative management.

but rather allowed them to complement the new systems. Yet, these reforms laid the groundwork for the emerging shift of agricultural centrality in the governing systems.

Farming families:

Upon the end of WWII, farming families passed through two major reforms in relation to their rights to farmland: 1) the land reform for ownership, and 2) the family institution reform for succession rights. First, the land reform changed the landlord-tenant relationship by transferring ownership from landlord families to tenant families. The ALA rendered equalized relationships between these families by controlling farmland transactions. It employed the household-based approach by stipulating "a family that shares housing and domestic accounts" as a unit of farm management (Ouchi 1995, 9). In particular, agricultural policy based on the ALA upholding 'owner-farmer principle' bolstered the ownership and management by 'owner-farmers' who were identical with the longstanding farm families as the trinity of ownership, labor and management (Harada 2017a; Saiga 1978; Ouchi 1995). Thus, the reform did not change the relationships between farm families and farmland but rather allowed for the continuation of family-run farm management where family heads (i.e., typically eldest males) owned farmland, led the family members in farm management and labor, and represented them at a farming village with their farmland registered *de jure* as their individual private property (S. Kumagai 2006).[71] This management style matched the farming methods and the way of living, through which farmers attained their life goals to own 'family property' (*kasan*), engage in 'family business' (*kagyo*) and

[71] According to the results of the "Fact-Finding Survey on Advancement of Female Farmers" (conducted by MAFF in 1999), over 90% of female farmers did not own farmland (S. Kumagai 2006).

sustain 'family name' (*kamei*) (Ouchi 1995). At the same time, it allowed them to pool and flexibly handle ownership, management and labor within a family.

Second, farming families experienced a series of reforms that dispelled and democratized the patriarchal family institution. The reforms included gender, labor, education, and the re-institutionalization of families through various legal amendments (e.g., Constitution of Japan in 1947, Family Register Act in 1947, Labor Union Act in 1945, Basic Act on Education in 1947).[72] In terms of the rights to farmland, amendments to Civic Code in 1947 changed the inheritance rights from the family headship succession (i.e., the primogeniture) to equal division (Nakagawa 2003; Tayama 2010). Over fears of fragmentation of farm property, politicians debated exceptions of farmland inheritance at the Diet in 1947 and 1949, though exceptions were not legitimized (Tayama 2010; Ando 1994). Yet, farm fragmentation accruing from subdivision did not become evident (Harada 2017a). In fact, based on the survey on farmland succession in selected villages across 11 prefectures in 1962, farmland proved to be continuously handed down as "the last bastion of life security" for farm families to allow for "*ie* to survive and exist" by minimizing the share to family members other than a heir even under the new Code (Tama 2014, 9; Aruga 1971, 50; Ando 1994).[73]

The reforms also developed the social security system whereby the target of support became a 'household' rather than a 'family,' driving the change in the notion of farm families.

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[72] Examples include the Constitution of Japan (1947), which stipulated the individual dignity and the sex equality within a family (Article 24), the Family Register Act (1947) which provided a principle of the family register to build on a modern nuclear family (i.e., each unit consisting of a husband and wife and any children with the same surname), the Labor Union Act (1945) which enabled the labor reforms to promote the social security system to protect laborers from unemployment and accidents, and the Basic Act on Education (1947) which facilitated the move to the philosophies of education based on the individual dignity (Saiga 1978).

[73] In many cases in the prewar era, farmland was divided among children for handover in advance of the decease of their parents, rather than being inherited singularly by a legitimate son, while the children other than a heir were given smaller shares (Tama 2014).

The Residential Basic Book Act (1951) provided the system by which a family was identified as a household based on its residential area with a resident card (Chaya 2002; Saiga 1978). The Public Assistance Act (1950) offered a framework where a household as a unit of supporters and dependents are given public assistance (Saiga 1978). Thus, the reforms replaced the autonomous unit of life security from the 'family' associated with the trinity to the 'household' specifically associated with a residence. Furthermore, the reforms promoted social, educational and labor policies based on the philosophical construct to respect individuals, together with the ideological diffusion of a modern nuclear family (e.g., my-home-ism) (Saiga 1978).

Along with these institutional reforms, the underemployment of adults other than eldest sons of farm families became recognized as a serious social problem in the early 1950s (called *ji-san-nan mondai* in Japanese) (A. Morita 2005; A. Ito 2012). After the immediate postwar peak of farm population, the underemployment of the young generations (aged between 16 and 25) had grown across the country until the mid-1950s.[74] As drivers of this underemployment, Morita (2005, 77–80) points to the following four factors: 1) the increased redundancy of workforce through conventional labor allocation within a farm family that faced the postwar baby boom; 2) the decline in the agrarian economy following the end of the immediate postwar inflation; 3) the lack of employment opportunities in urban areas under the financial contraction policy in the late 1940s; and 4) the increased pressure on the children other than a heir due to the bolstered ownership of farmland through the postwar reforms.

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[74] According to Morita (2005), in contrast to the other areas and sectors (e.g., the devastated urban areas, the heavy and chemical industry affected by fuel shortage), the farming villages absorbed the population that increased due to the repatriation and demobilization, resulting in the significant increase in agricultural workforce by 3.47 million between 1944 and 1947. The social increase in farm population started to be negative from 1946. The fact-finding surveys on underemployment in farming villages, which were conducted in various prefectures in the early 1950s, show that most farm population with underemployment status (e.g., those engaging in farming only during peak seasons, those engaging in farming less than 6 hours per day) were second- and/or third-eldest sons and women between 16 and 25.

Prior to the postwar reforms, the children other than a heir hedged the family's risk to complement the workforce depending on agricultural production cycles, life cycles, and needs for caregiving in the underdeveloped social security system, while being expected to serve the family for free after their apprenticeship until the age of 20 (*Orei-boko*) (A. Morita 2005). Despite the low-cost flexibility of their labor, however, the new family institution made their parents feel indebted to those children without inheritance and sufficient rewards, and prevented them from having their children actively engaged in the family farm (A. Morita 2005). Besides the decline in parents' expectations of children's contribution, the demographic and economic pressures amplified the recognition of them as a 'redundant workforce,' leading to them "staying at home, though willing to leave but cannot do so, and willing to stay but cannot do so" (J. Ishihara 1992, 149). With the loss of anchorage, these children tumbled into an ambiguous situation, resulting in self-destructive behaviors but also a movement for vocational training (A. Morita 2005).[75] Finally, the underemployment problem was resolved in the mid-1950s with the rapid economic growth (A. Morita 2005).

2.2.2 The second postwar period (1960-1985)

1) Political Institutions

The first postwar model branched into two streams, and one of them became the second model as the forefront of the policy to actively promote tenancy. The Agricultural Land Act (ALA)

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[75] According to Morita (2005), the youth associations in farming villages were active in entertainment and other cultural activities immediately after WWII to recover the daily life, but became inactive without a clear identity either to a territorial association or voluntary club along with a series of reforms. In particular, depraved and wicked behaviors among those called the second- and third-eldest sons became noticeable in farming villages (e.g., gambling, drug abuse, etc.). However, some of the youth associations started to contact each other to initiate vocational training projects, which later extended to the national programs such as the Program of Dispatching Supplementary Agricultural Workers.

remained the mainstay of agricultural land policy, but only passively promoted tenancy. To promote the productive use of farmland, the ALA went through repeated amendments since its first amendment in 1962 (Imamura 2003; Hori 2011). This series was the stream of 'leasehold rights' (*Taishaku-ken*) that controlled individual farmland transactions but increasingly allowed for tenancy arrangements (Hori 2011). The system of 'leasehold rights' continuously upheld the 'legal renewal' of a tenancy contract and other conditions advantageous for tenants (e.g., compensation for tenants' disengagement from farming due to the contract cancellation led by landlords) to protect the tenants' rights to cultivation (*Kosaku-ken*) (Arimoto and Nakajima 2010).

Another stream vigorously promoted tenancy with 'use rights' (*Riyo-ken*) instead of loosening the tenancy controls, giving birth to the second model. The system of 'use rights' has developed under a new law in 1980 building on the Agricultural Land Use Promotion (ALUP) program which started in 1975 (D. Takahashi 2010; Arimoto and Nakajima 2010). The 'use right' free from legal renewal ceases to be in effect upon the completion of a contract (Arimoto and Nakajima 2010). It allowed owners to claim their farmland back in their wills without governmental approval of the cancellation (albeit based on the mutual consent between owners and tenants to be reported to the agricultural committees). Thus, it enabled owners to lend their farmland to other farmers without fear of losing the de-facto land ownership.

Based on the Agricultural Land Use Promotion (ALUP) Act (1980) that legitimized the 'use right,' the second model boosted a new principle called the 'cultivator principle' (*Kosakusha-shugi*) to prioritize agricultural productivity. At first, the Agricultural Basic Act (ABA) of 1961 treated agricultural policy as industrial, setting the goal to improve

productivity and redress the income disparities between agriculture and other sectors. This preceded a series of ALA amendments since 1962 to adjust the 'leasehold right' system to the loosened tenancy controls, while leading to the emergence of the 'use right' system to promote tenancy. Although the original ALA lacked a vision of farm management other than the 'owner-farmer principle,' the dual system brought forth the 'cultivator principle' to grant more power to 'cultivators' (who farm land appropriately and efficiently, mostly by residing and farming in farming villages) to acquire rights to farmland (Imamura 2003; Higuchi 2009). The 'use right' system politically pronounced farmland as a commons to be managed by a farming village, by adopting the decentralized approach to collective tenancy arrangements to leverage the self-governing capacity of villages (Imamura 2003). The first model limited the farm scale (i.e., 0.3 ha-3 ha), and in practice decreased economy of scale along with the progress of informal, ad-hoc tenancy arrangements on the historically fragmented rice paddies (Imamura 2003; Sun and Tashiro 1990). To resolve this problem, the second model deployed a new approach whereby local administrative bodies facilitated tenancy.

The remainder of this section details the political institutional changes in governing farmland over the second postwar period (1960-1984) in order to explain the emergence and operation of the second model. First, it lays out how the first model was extended in the course of development of the 'leasehold right' system. Then, it illustrates how the second model was introduced as another stream for tenancy arrangements. It also describes how the second model was operationalized in the political frameworks.

Agricultural Basic Act (ABA) of 1961

In response to agricultural decline along with the progress in the rapid economic growth, the government established the Agricultural Basic Act (ABA) in 1961 to direct agricultural policy to an industrial one and called for the scale expansion of farm management (Kurumisawa 2016; Honma 2010).[76] With the goal to improve productivity and redress income disparity, the ABA entailed three pillars, including: 1) structural, 2) production, and 3) price and distribution policies (Honma 2010). The structural policy offered a vision of 'economically viable farm management' by defining an 'economically viable farming family' (*Jiritsu-keiei noka*) as a family-run farm capable of generating agricultural income equivalent to that in other industrial sectors (Honma 2010).[77] To make the agricultural structure dominant by economically viable farms,[78] this policy developed the Agricultural Structure Improvement (ASI) program to physically improve farmland for agricultural modernization.[79] The program was pursued to demonstrate 'economically viable farm management,' resulting in the development of a few large-scale farms

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[76] Following the Economic White Paper of 1956 that stated that "[i]t is no longer the postwar period," the White Paper of Agriculture and Forestry of 1957 cautioned about the "five red signals" of Japanese agriculture, which included: 1) low income of farm families; 2) low capacity of food supply; 3) low competitiveness in the international markets; 4) progress in part-time farming; and 5) weak structure of agricultural employment (Honma 2010). In response, the government launched an advisory body to the prime minister in 1959 to seek an economic rationale of agricultural policy. This provided the recommendations in 1960 called 'the Basic Measures to Fundamental Problems of Agriculture,' which laid out the economic rationale for agricultural policy, resulting in the establishment of the ABA in 1961 after a series of Diet deliberations (Kurumisawa 2016; Honma 2010).

[77] While the ALA of 1952 understated the economy of scale of a family-run farm (other than the loose range between 0.3ha -3ha), the ABA placed the fostering of "economically viable farm management" (*Jiritsu-keiei*) as the center of its structural policy (Fuchino 2003). It initially defined the appropriate scale of farm management as the area under cultivation over 1-2ha, but adjusted it to 4-5ha due to the increased average worker wages (Honma 2010). The series of Agricultural White Paper annually reported the number of economically viable farm households and its share in comparison with the numerical goals (Fuchino 2003).

[78] The ABA set the target to entail 2.5 million economically viable farm households with the farm size over 2 ha and 2.5 million of part-time farm households with the farm size of 0.4ha for the agricultural structure in which the economically viable farms would cover 5 million ha out of the total farmland of 6 million ha (Kurumisawa 2016).

[79] The ASI program facilitated the adoption of large-sized farming machines by funding the land improvement projects which included land consolidation (to 0.3 ha on average) and other infrastructural development (Kurumisawa 2016). With the considerable amount of national subsidies, the first series was conducted between 1962 and 1969 as pilot projects at a few sites of each municipality across the country (approximately 3,100 municipalities in total) to demonstrate a set of works including land improvement as well as the introduction of equipments and facilities for agricultural modernization (Honma 2010). This was followed by the second series between 1970 and 1978 and then more extensively under different project names.

but rather expanding a thin, broad subsidiary route to a vast number of farming communities (Iwamoto 1999).[80] It also initiated the farmland liquidation policy with a focus on the 'ownership' transfer to allow for larger-scale farming, leading to the first amendment to the ALA in 1962.

The two other pillars also promoted larger-scale farming. The production policy promoted the selective expansion of agricultural production through infrastructural and technological investment in selected products based on economic forecasts. Besides false predictions of demand-and-supply trends, however, improved agricultural productivity together with the expanded employment opportunities resulted in an increase in part-time farming.[81] The price and distribution policy was intended to support farm households as a supplement to the production policy. Yet, it became an income-redistribution program for the existing small farms by raising the rice price for government purchase even with the excessive supply and then distorting the agricultural market.[82] Consequently, farmland aggregation for large-scale farming

[80] Following the ABA that also promoted 'collaborative farming' (*kyogyo*) (Article 17), the ASI program facilitated the shared use of agricultural machines in farming village communities, but only as complementary to family-run economically-viable farms (Katsura 2006). Many communities adopted the collaborative farms, resulting in a few cases where such farming developed into corporate large-scale farms. Nevertheless, most of them were disbanded upon the end of a mechanical life (e.g., machine breakdown, needs for upgrading machines), either returning to individual farms or reorganizing themselves into smaller groups of interested farmers.

[81] The selective expansion policy focused on products with increasing demand to streamline the production in competition with foreign products (the first clause of Article 2 of ABA) (Hirasawa 2017). This made the land-extensive farming products other than rice as the staple diet dependent on import, while promoting the production of land-intensive farming products (e.g., vegetable, fruits) (Hirasawa 2017). With the infrastructural and technological investment to shift the product composition, the supply of the selected products increased for the first 10 years as planned to meet the forecasts that was predicted in the Long-Term Outlook for Demand and Production of Agricultural Products in 1962 (Honma 2010). However, the increase in demand for the selected products slowed down towards the end of the rapid economic growth, whereas the competition with foreign products increased (Honma 2010). In particular, the per-capita consumption of rice decreased well ahead of the forecast, compelling the production adjustment of rice since 1969 (Honma 2010; Yamamoto 1980). Also, the infrastructural and technological investment (e.g., land consolidation, agricultural mechanization) decreased the per-unit-area labour hours, enabling the saved labor to engage in other sectors and keep engaging in farming as a sideline, rather than to enhance farm management, given the expanded employment opportunities in rural regions under rapid economic growth (Honma 2010; Kurumisawa 2016).

[82] As intended to supplement the production policy, the measures for the price and distribution policy at the earlier stage were consistent with the selective expansion measures and contributed to the expansion and stable supply of the focused products such as livestock products, soybeans and coleseed (Honma 2010). Given the widened income disparities under rapid economic growth, however, the policy raised the government rice price despite the excess production to redress the income gap, rather than curbing the price to contract the rice production in accordance with the selective expansion policy (Honma 2010).

limitedly progressed in the land-extensive rice farming (Kurumisawa 2016; Honma 2010; Yokoyama 2008).[83]

Amendments to the Agricultural Land Act (ALA) (1962 and1970)

The ABA (particularly its structural policy) guided the first amendment to the ALA in 1962. The amendment extended to three fronts: 1) farmland scale, 2) corporate ownership of farmland, and 3) intermediary of farmland transactions. All of these focused on ownership transfer for large-scale farming to improve productivity under the 'owner-farmer principle' (Honma 2010; Sun and Tashiro 1990; Yamamoto 1980; Wajima 2017; Shimamoto 2006). First, it relaxed the upper limit of the area of farmland ownership.[84] Second, it institutionalized 'Agricultural Production Corporations' (*Nogyo seisan hojin*) as a legal person with legitimized farmland ownership.[85] The incorporation of farmers as a legal person became sanctioned under several conditions (e.g., corporation types, business types, members' engagement), which was limited to the grouping of natural persons under the 'owner-farmer principle' (Imamura 2003; Honma 2010; Kurauchi 1998). Third, the revision of Agricultural Co-operatives Act (ACOA) provided a legal basis for

[83] The exception was Hokkaido Prefecture. The area of operating cultivated land (*Keiei-kochi*) per farm household in Hokkaido increased to 4.9 times between 1960 and 2003 from 3.45ha to 17.18ha, whereas that in other prefectures increased to 1.6 times from 0.77ha to 1.24ha (Yokoyama 2008).

[84] Following the ABA's stipulation on the fostering of economically-viable farm management (Article 15), the amended ALA allowed the family-run farms capable of efficient farm management to own farmland with the area exceeding the upper limit of farmland ownership defined by the original ALA (the second clause of Article 3) (Sun and Tashiro 1990; Yamamoto 1980).

[85] The system of 'Agricultural Production Corporations' was introduced in response to the initiatives of several farmers in Tokushima Prefecture since the late 1950s where they organized agricultural corporations as a tax-reduction strategy, while following the ABA's promotion of collaborative farming (Imamura 2003; Sekiya 2002).

the Farmland Trust (*Nochi-shintaku*) program to allow the agricultural cooperatives to engage in loans and sale of trusts under the Japan Agricultural Cooperatives (JA) system.[86]

The ALA's first amendment resulted in the limited progress in farmland transactions largely due to the following factors: 1) the saved labor hours through agricultural mechanization that allowed small farmers to engage in both farming and other jobs for income security;[87] 2) the farmers' interests in holding farmland as a 'family property' with the rising land value;[88] and 3) the still rigid control of farmland transactions.[89] Even the introduction of the Farmland Trust program only formalized the existing arrangements without revision of the tenancy controls, resulting in limited progress in implementation (Imamura 2003; Sun and Tashiro 1990).[90]

The ALA amendment in 1970 was the first step in departing from the 'owner-farmer principle.' This followed the "Basic Outline of the Structural Policy" (*Kozo-seisaku no kihon hoshin*) of 1967 which added 'stable supply' to the ABA's goal of 'agricultural productivity' and stated two key actors to be further promoted in later policies: 1) 'economically viable farms as

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[86] Under this program, the agricultural cooperatives administered farmland transactions by receiving, managing and transferring either ownership or tenancy rights on behalf of owners. Following the ABA (Article 18), the ACOA amendment in 1962 allowed the cooperatives to implement the Farmland Trust program, whereas the ALA amendment authorized the exceptions for its control under the program (e.g., permissions of ownership transactions, regulations for tenanted farmland, permissions of contract cancellation) (Imamura 2003; Sun and Tashiro 1990).

[87] Agricultural mechanization allowed farmers to continue farming in mornings and nights and/or over weekends (Kurumisawa 2016). At the same time, the expanded job market under economic growth allowed them to gain income from other sectors, but failed to generate income as high as to sufficiently subsist, disallowing small farmers to disengage from farming (Kurumisawa 2016; Wajima 2017; Yamamoto 1980).

[88] The ALA's household-based approach to farmland ownership bolstered farmers' commitment to handing down farmland as a family property (Kurumisawa 2016; Shimamoto 2002). At the same time, the pressing demand for land (e.g., housing, transportation, production and distribution facilities) under the rapid economic growth heightened the land value in particular since the late 1960s, resulting in the rise of farmers' interests in holding farmland for future increase in farmland prices as well as their expectations for land conversion (Honma 2010; Wajima 2017; Yamamoto 1980).

[89] The 'Basic Outline of the Structural Policy,' as discussed below, acknowledged the ALA's control regulations as one of the reasons for limiting the farmland liquidation for larger-scale farming (Imamura 2003).

[90] For the first five years of program implementation (1963-1967), the areas rendered for loan, sale and sale-loan trusts amounted to 111.9 ha, 511.0 ha and 86.7 ha respectively, and did not substantially increase afterward (Shimamoto 2006).

core bearers' (*Chukaku-teki ninaite*) of agricultural production; and 2) 'collective production organizations' (*Shudan-teki seisan soshiki*) involving part-time farmers (Imamura 2003; T. Kobayashi 1992).[91] In addition to the zoning system for agricultural land-use, which was launched with the establishment of the Act on Establishment of Agricultural Promotion Regions (EAPR Act) in 1969,[92] the Basic Outline proposed the revision of the ALA with the recognition of its flawed strong pro-tenant line against the actual socio-economic status of farming.[93] To shift from the 'owner-farmer principle' to tenancy promotion, the revision expanded the ALA's legislative purpose to 'efficient' farmland-use.[94]

Accordingly, with more focus on 'leasehold-right' transfer, the amendment approached three fronts: 1) scale, 2) corporate ownership, and 3) intermediary. First, it substantially relaxed

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[91] The structural improvement of agriculture was called for by both agrarian and financial sectors in the late 1960s, following the trends: 1) the increasing pressure on agricultural trade liberalization (e.g., the shift of Japan's status to an IMF Article VIII nation in April 1964, the conclusion of the Kennedy Round in 1967); 2) the heightened needs for efficient land-use under the pressing demand for land and the sprawling; and 3) the decreasing self-sufficiency since the mid-1960s (Imamura 2003). In response, the Basic Outline was published as the Decision of Ministry of Agriculture and Forestry (MAF) in 1967. The term of 'core bearers' (*Chukaku-teki ninaite*) of agricultural production started to appear in the Agricultural White Paper in Fiscal 1973, and replaced the previous term 'economically viable farm management' (*Jiritsu-keiei*) since 1974, while the issue of 'collective production organizations' started to be addressed in the Agricultural White Paper in Fiscal 1966 (Imamura 2003).

[92] In rivalry with to the enactment of the City Planning Act of 1968, which embraced large area in cities by delineating space, the EAPR Act was established in haste in 1969 as the "territorial claim of agricultural policy" to secure farmland (Imamura 2003; Harada 2011).

[93] The Basic Outline presented the direction to loosen the tenancy control, by identifying three factors that hindered farmland liquidation: 1) the strong trend of owners' holding of farmland as an asset; 2) the minimum progress in farm retirement and scale-down; and 3) the rigidity of the ALA in controlling tenancy (Imamura 2003; Harada 2011). In addition to these factors, Imamura (2003, 21) notes the political decision of promoting tenancy built on the completion of the post-reform administrative works in compensating former landlords. He also emphasizes the ALA with a law full of loopholes given that de-facto, informal arrangements for tenancy and contracting farming, which expanded due to the widened technological gap between large and small farmers along with the technical advancement that allowed larger farmers to progressively improve productivity.

[94] With the amendment, the ALA came to include in the judicial purpose (Article 1) a line that states "adjusting relations over the use of such land" to ensure agricultural land is used in an "efficient manner" for farmland liquidation (Harada 2011, 16; Honma 2010).

the controls of ownership and tenancy.[95] Second, it expanded the eligibility for 'Agricultural Production Corporations' (*Nogyo-seisan hojin*) (i.e., legal persons with farmland ownership), but added another condition requiring farm managers to regularly engage in farming.[96] Even without an intention of policy-makers, this took the first step to moving from the 'owner-farmer principle' to the 'cultivator principle' for which property holders should guarantee 'efficient' farmland use but only with their direct engagement in farming.[97]

Third, two intermediary systems were introduced: 1) the Agricultural Land Holding Rationalization (ALHR) program (*Nochi-hoyu-gorika-sokushin jigyo*) and 2) the Farm Management Commission (FMC) program (*Nogyo-keiei juitaku jigyo*) (Harada 2011; Sekiya 2002). The ALHR program designated non-profit local authorities (mostly prefectural public

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[95] The controls were relaxed in the following respects: a) ownership rights (i.e., removal of the upper limit and the increased lower limit of farmland holding, and the loosened restrictions of tenanted-land acquisition); b) leasehold rights (i.e., relaxation of regulations of tenancy contract cancellation, such as no requirement for governors' approval on the cancellation of tenancy contracts for the period over a decade and the cancellation based on a mutual agreement in writing); and c) rent (i.e., replacement of the rent control with the reference system for standard rents, accompanied with the advisory system for lowering the rent). (Arimoto and Nakajima 2010; Harada 2011; Honma 2010).

[96] The original eligibly in the 1962 amendment involved seven categories of conditions (i.e., corporation types, business types, members' engagement, borrowed land, voting rights, employment, and profit allocation). The 1970 amendment abolished four of them (i.e., borrowed land, voting rights, employment, and profit allocation), but added another condition for executive officers (i.e., over a half of whom should be those who render their farmland for farm management and regularly engage in farming) (Harada 2011; Mamoru Sawada 2008; Sekiya 2002).

[97] A bureaucrat who was deeply involved in the policy-making process of the 1970 amendment made a retrospective view that policy-makers and the Diet of those days did not have a concept of the 'cultivator principle' and only intended to facilitate farmland liquidation building on the 'owner-farmer principle' in an efficient manner (Harada 2011). He inferred the development of the term 'cultivator principle' since around the mid-1970s when the financial community started to advocate the farmland ownership by stock corporations, while some scholars point to the 1970 amendment as the edge of the 'cultivator principle' (Harada 2010; 2011; Sawada 2008).

corporations) to engage in farmland transactions in consideration of local features.[98] To facilitate farmland liquidation, the ALHR corporations were allowed to buy, sell and sublet farmland without official approval, but were limited to intervening in 10-year tenancy contracts due to other pro-tenant stipulations in the ALA.[99] The FMC program built on the Farmland Trust system and allowed the agricultural cooperatives to engage in contract farming for their members (i.e., farm management on consignment), which had been prevalent in practice without a legal basis (Sekiya 2002).[100] These programs made limited progress in formal contracts, while informal arrangements progressed for both farmland tenancy and contract farming (Sekiya 2002; Imamura 2003).[101]

Agricultural Land Use Promotion (ALUP) Program (1975)

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[98] The ALHR program built on the plan of the Agricultural Land Management Agency (ALMA) program (*Nochi-kanri jigyo-dan*), for which the bills were submitted to the Diet sessions in 1965 and 1966 but discarded (Imamura 2003). Similarly to the ALHR program, the ALMA program was planned as a direct public intervention in farmland management, whereby a government-affiliated corporation was to engage in various administrative works related to farmland transactions (e.g., matchmaking, sale and purchase, borrowing and lending, trusts, funding) in order to foster economically viable farms (Sekiya 2002; Imamura 2003).Yet, the ALMA plan put more emphasis on the ownership transfer with the structure in which a nationwide corporation (rather than local ones) was to promote farmland liquidation (Sekiya 2002; Imamura 2003). The reasons for repealing the bills were said to include the backlash against the selectivity of the public intervention for larger farms, the lack of integrity with other measures (e.g., farm retirement, infrastructural development), and the potential budget inflation accompanied with rising land prices (Sekiya 2002; Imamura 2003; Sun and Tashiro 1990). The ALHR program took over the idea of the ALMA plan as its "local version" to have local corporations engage in facilitating farmland liquidation (Imamura 2003; Shimamoto 2006).

[99] With the ALA amendment in 1970, the ALHR program was established on an exception of Article 3 (Restrictions on the Transfer of Rights to Cropland or Meadow/Pasture Lan) to transfer ownership or establish and transfer relevant rights to farmland (e.g., a superficies, farming right, pledge, a right of lease) without official approval by the agricultural committees so as to more autonomously buy or borrow farmland from small or retiring farmers and sell or lend it to motivated farmers for stable farm management (Takayama et al. 2015). Yet, the ALHR corporations were not exempted from the stipulations protecting the tenants (e.g., the legal renewal, and the control of cancellation for the tenancy contracts for the period less than 10 years) (Sekiya 2002). Thus, for the intervention in tenancy, the ALHR program limited to the tenancy contracts exclusively for a decade so that the ALHR corporations can cancel or end a contract without official approval (Sekiya 2002).

[100] The 1970 ALA amendment limited the eligible agencies for contract farming to the agricultural cooperations under the JA system to avoid the legal complexity of the rights related to farm management and to prevent inappropriate farmland use without application of the ALA regulations (Sekiya 2002). However, the Agricultural Land Use Promotion (ALUP) Act of 1980 ruled out this limitation (Sekiya 2002).

[101] Imamura (2003) suggests that one of the reasons for the limited progress in formal contracts should be a lingering feeling of resistance to tenancy, which remained among farmers and farming villages that experienced the land reform.

As a prototype of the postwar second model, the Agricultural Land Use Promotion (ALUP) program was introduced in 1975.[102] In response to the prevalence of part-time farming against the decrease in agricultural workforce[103] as well as the political and economic turbulence with international relations,[104] agricultural policy in the 1970s changed its target from 'economically viable farm families' (*Jiritsu-keiei noka*) to 'core farm families' (*Chukaku noka*) with a focus on individual farmers rather than an entire farm family.[105] Following this change, the ALUP program was designed to facilitate farmland aggregation to 'core farm facilities.' Initially policy-makers attempted to have farming villages manage farmland transactions, but found villages unable to administer governmental programs due to the lack of legal competence (Sekiya 2002).[106] Consequently, the program designated municipalities as authorized bodies to

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[102] Soon after the ALA amendment in 1970, the policy consideration for another approach to farmland governance started from the fall of 1972, leading to the introduction to the ALUP Program (Imamura 2003).

[103] Under the Agricultural Basic Act (ABA) of 1961, which conceptualized 'economically viable farm families' (*Jiritsu-keiei noka*) as those capable of generating agricultural income equivalent to worker wages, agricultural policy continued its structural policy to improve farm management based on farm families (Fuchino 2003). However, the number of 'economically viable farm families' started to decrease after its peak in 1967 (from 12.9 % share of the total farming households in 1967 to 4.4% share in 1971) (Fuchino 2003). With the increase in part-time farming families that could secure household income equivalent to or even more than worker wages despite the decrease in agricultural workforce, the policy shifted its target from the household income to the agricultural workforce within a farm family (Fuchino 2003).

[104] Examples include the soybean crisis in 1973, the oil crisis in 1973, the Plan for Remodeling the Japanese Archipelago in 1972 (Imamura 2003). The soybean crisis followed the US's outright ban of soybean export by which the US government attempted to control the domestic inflation in summer 1973 and also suggested a possible control of corn export (Hirasawa 2017). This export control ended in three months, but raised awareness about the risks of import dependency, leading to the widespread use of the term of 'food security' since the mid-1970s (Ohga 2010). The Plan for Remodeling the Japanese Archipelago ('*Nippon Retto Kaizo-Ron*' or Building a New Japan) was the policy statement proposed by the then Prime Minister Kakuei Tanaka in 1972 to promote the land development of Japan through industrial decentralization.

[105] The Agricultural White Paper in 1973 introduced the term 'core farm families' (*Chukaku noka*) (Kurauchi 1998). The term is defined in the White Paper as a farm family involving male 'core persons mainly engaged in farming,' while it is statically defined as a family having 'core persons mainly engaged in farming' who are males aged below 60 and engaged in farming for more than 150 days per year (Kurauchi 1998; Honma 2006). This definition suggests key operators of agricultural facilities and machines in a farming community (Kurauchi 1998).

[106] Even prior to the ALUP program, both policy-makers and scholars frequently discussed the self-governing capacity of farming villages to manage farmland (e.g., collective rice production in the 1960s, and the rice-acreage quota management for production adjustment since the 1970s) (Wada 1988). To develop the ALUP program, policy-makers proposed a method of 'collective use of farmland' based on the idea of 'voluntary control of farmland' by which a local group of farmland property holders would serve as implementation agencies for the program (Sekiya 2002). However, the bill screening process rejected the proposed exception of the ALA application for the groups without legal personality on the ground that such groups were not qualified to ensure the continuity and publicness of program implementation (Sekiya 2002; Imamura 2003).

implement the program with the revision of Act on Establishment of Agricultural Promotion Regions (EAPR Act) (Sekiya 2002; Imamura 2003). Thus, the program was institutionalized as part of administrative land-use planning under the EAPR Act rather than a community-based project of farmland management.

The ALUP program first introduced the 'use right' system to have tenancy contracts collectively exempted from the application of the legal renewal of ALA (Sekiya 2002). To effect 'use rights' for tenancy arrangements, the program consisted of three key components: 1) a plan of collective tenancy contracts (*Noyo-chi riyo zoshin keikaku* or Agricultural Land Use Promotion Plan); 2) a tenancy contract to be terminated upon its expiration as an exemption; and 3) municipalities as implementation agencies to administer the program (Sekiya 2002). Given the role of municipalities as planning agencies for farmland transactions, this program was different from the intermediary programs (e.g., the ALHR and FMC programs, the Farmland Trust system). The former authorized municipalities to facilitate tenancy contracts between owners and users in a collective manner, while the latter designated the intermediary agencies to directly make contracts with the counterparts and engage in farmland transactions (e.g., buying and selling, and borrowing and lending) (Sekiya 2002). The ALHR program was making progress with the increased number of ALHR corporations and the considerable amount of budget allocation, but was separately implemented until both programs were integrated under the new law in 1980 (Shimamoto 2006; Sekiya 2002).

Agricultural Land Use Promotion (ALUP) Act (1980)

Building on the ALUP program, the Agricultural Land Use Promotion Act (ALUP Act) was established in 1980 to streamline the relevant policy tools and foster 'core farm families' (Sekiya 2002; T. Kobayashi 1992).[107] Despite progress,[108] the evaluations of the ALUP program identified three major limitations: 1) nominal binding of the existing informal contracts in the form of a plan without efficacy on collective tenancy arrangements; 2) lack of long-term planning of farmland use in farming villages (e.g., program adoption for the sake of grant money); and 3) systematic exclusion of the arrangements outside the program target area that was limited to the Agricultural Land Zones under the zoning system of the EAPR Act (Imamura 2003; Kurumisawa 2016). Consequently, an alternative means to 'collective' farmland management was explored at various levels (e.g., national government, farming communities) to overcome these limitations and to follow up the earlier discussions on the role of villages in farmland management (Sekiya 2002; Imamura 2003; Wada 1988). The long-standing political effort to leverage self-governing capacity of farming villages for tenancy arrangements finally evolved into the ALUP Act as its core component, namely the Agricultural Land Use Improvement (ALUI) Program.[109]

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[107] In political orientation to localism together with the policy goal to foster 'core farming families' since the mid-1970s, the term of 'core farm families' came to take on the meaning of 'a core of a community' since then (T. Kobayashi 1992).

[108] Since the launch of the ALUP program, the area under the tenancy arrangements through the 'use rights' establishment rapidly increased from 11 ha in 1975 to 11,131 ha in 1978 and then doubled each year between 1978 and 1980 (24,439ha in 1979 and 47,521ha in 1980) (Imamura 2003). The program adoption rate of the municipalities achieved 58.6% by 1980 — (i.e., 1795 out of 3,062 municipalities that developed zoning plans for agricultural land use) (Imamura 2003).

[109] To move from the ALUP program to ALUP Act, the policy deliberation on a potential role of farming villages began with the concept of 'Agricultural Land Use Agreement'(*Noyo-chi riyo kyotei*) (Sekiya 2002; Imamura 2003; Kurumisawa 2016). This concept built on the assumption that farmers agree on the norms of farmland management to effectively use farmland in a certain small farming community. This is associated with the concept of 'voluntary control of farmland' by farming villages, similar to the idea that led to the ALUP program. Differently, however, it focused on an 'agreement' within a faming village rather than an 'agency' of a village to implement the program, and attended to farmland management in a border sense (including collective cropping, contract farming), not merely to management of farmland transactions.

To promote farmland management based on farming villages (Sekiya 2002), the ALUP Act advanced the ALUP program with three features: 1) administrative decentralization; 2) policy integration; and 3) community-based farmland management. First, the ALUP Act placed municipal governments at the center of policy implementation for farmland liquidation and effective use. Although municipal governments were already implementation bodies for the ALUP program, the ALUP Act authorized them as main agencies to administer all the key programs in cooperation with other local agencies.[110] Second, with the municipal administrations, the ALUP Act integrated all the relevant policy tools and mechanisms in the scope of farmland beyond the Agricultural Land Zones under the EAPR Act.[111] As such, the related programs, including intermediary systems (e.g., the ALHR program, the FMC program, Farmland Trust system), became streamlined under the ALUP Act. Third, the ALUP Act established the Agricultural Land Use Improvement (ALUI) Program (*Noyo-chi riyo-kaizen jigyo*) that institutionalized local groups to pursue collective farmland management. The Act authorized an ALUI group, which consisted of more than two thirds of farmland owners in a certain small area such as a farming village, to facilitate local consent on collective management

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[110] The Act on Establishment of Agricultural Promotion Regions (EAPR Act) of 1969 was the first step to center municipalities in facilitating integrative local planning for agricultural promotion under the zoning system of agricultural land use (Imamura 2003; Sekiya 2002). However, the ALUP Act of 1980 took the definitive step to move from the centralized bureaucratic control of farmland management to the decentralized administration for collective planning by giving municipal governments a role to facilitate farmland liquidation and effective use (not only use-right establishment but also other farmland transactions, farmland use and farm management), which were central to the structural policy under the ABA (Imamura 2003).

[111] Under the ALUP Act, the Use Right Establishment Promotion (UREP) program followed the method of use-right establishment, which was introduced by the ALUP program (e.g., exemption of legal renewal, planning of collective tenancy arrangements), but also expanded the target area and the land types (including municipal areas even outside the urbanization-promotion zones, and all the types of land for agricultural purposes) and extended to most types of farmland transactions (e.g., ownership transfer, contract farming) (Imamura 2003; Sekiya 2002). In addition, the UREP program involved intermediary organizations (e.g., ALHR corporations, JAs) to be granted farmland property rights (e.g., use rights, contract farming rights) (Imamura 2003).

and coordinate transactions, whereby municipal governments could endorse group activities and execute farmland transactions (including use-right establishment) in municipal plans.[112]

As the flagship of the ALUP Act, this ALUI program represented the key features of the second postwar model. First, with the goal to enhance agricultural productivity and stabilization, the model took the integrative approach to farmland management, not merely focused on tenancy arrangements but more broadly on farmland liquidation and effective use (Imamura 2003). Second, under the 'cultivator principle' to foster 'core farm families,' it built on the 'use-right' system to collectively establish use rights at a certain area for effective use of farmland in accordance with local conditions (Imamura 2003). Third, based on the concept of farmland as a commons for a farming village, it took a community-based consensus approach to decision-making. Finally, it took a decentralized planning approach to farmland use and management (Imamura 2003). In particular, the model involved the twofold system for collective tenancy arrangements in which local farming groups discussed and agreed on collective tenancy arrangements to be officially planned and executed by municipalities as part of a municipal administrative plan.

The governance mechanisms became complex, involving multiple laws and policy tools in addition to this flagship model. Due to the continuous progress in implementation, the ALUP program remained with the broadened scope (e.g., the target area, land types), rather than being merged into the ALUI program (Kurumisawa 2016; Harada 2017a). Except for some exemptions

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[112] The program activities by ALUI groups were placed under the umbrella of the municipal program: The municipal governments established practical standards to implement the program and facilitated program implementation, while the ALUI groups built consensus on collective farmland use and developed rules to be examined and if appropriate endorsed by municipalities (Imamura 2003; Sekiya 2002). Farmland transactions were executed through municipal planning where the ALUI groups made proposals of transactions to municipalities and, in response, the municipal governments developed a plan in consideration of the proposals and executed transactions.

under the ALUP Act, the ALA maintained its state control mechanism on each parcel of farmland despite a few amendments in 1980 to further relax the rent control to facilitate the use-right-based tenancy (Harada 2017a). With the new legislation, the agricultural land policy became doubled with different focuses and approaches: the ALA focused on land use control in relation to other sectors, while the ALUP Act focused on land use adjustment and coordination within the farming sector (Harada 2017a; Imamura 2003).[113] In addition, the Agricultural Committee Act (ACA) was revised in 1980 to clarify the role of agricultural committees in farmland liquidation, which had become ambiguous (Harada 2017a). Despite the multiplicity of policy instruments, the development of these three laws (*Nochi-sanpo*) by 1980— including ALA, ACA and ALUP Act — seemed to complete a decentralized system for farmland liquidation, letting several policy-makers say "The era of policy making ends for now, and it is time to implement it" (Sekiya 1981, 5; Harada 2017a; Imamura 2003).

2) Social Institutions

Under the influence of the rapid economic growth (from the mid-1950s to the early 1970s), the country faced a significant decrease in farming population and farmland, as "cities grabbed farmland and labor from farming villages" (Ouchi 1987, 120) (see Table 2.2). Arahi (2005) hints to five drivers for rural-urban migration: two pull and three push factors. Two factors pulled farming population to cites: 1) the postwar national development plans that skewed toward

[113] Drawing on the government statement on the different sectoral focuses of these two laws, Imamura (2003) offers the view of a double feature of the agricultural land policy, where the ALA rendered the nationwide state control of each parcel of farmland (particularly for land conversion and asset holding) while the ALUP Act enabled the collective farmland transactions based on local autonomy. On the other, Harada (2017a) claims a nested (rather than parallel) feature of the policy, arguing that the ALA lays the general ground (special rules of farmland ownership for the Civic Code) based on which specific farmland transactions under the program framework of municipalities were exempted from some of the rules.

industrial and urban development;[114] and 2) the diffusion of urban lifestyle (e.g., popularization of home electronics, automobiles and recreation) that attracted rural residents. Three factors pushed them from rural areas: 1) the technological advancement that allowed for laborsaving in farming; 2) the fall of self-sufficient lives of farmers resulting from the growth of commodity economy (e.g., agricultural machines and chemicals) associated with the slump of subsidiary businesses (e.g., forestry, charcoal making); and 3) the decline in social and cultural events in farming villages that weakened the power to deter outmigration.

Over the second postwar period (1960-1984), demographic change was distinctive between the two halves: the earlier years (1960 - the early 1970s), and the later years (the early 1970s - 1985) (Ouchi 2005).[115] Under the rapid economic growth in the earlier years, the agricultural population sharply declined with population concentrated in cities and depopulated in remote areas.[116] Besides the decrease in the regular, full-time agricultural workforce, the seasonal and temporal outflow became significant (K. Abe and Kitahara 2005). The depopulation began in the western mountainous regions with the decline of forestry sideline businesses

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[114] The postwar political shift “from subsistence to reconstruction of industrial cities" was followed by a series of national land development plans for capital accumulation (Tahara 1964, 209).The Comprehensive National Development Plan of 1962 (The First Plan) laid the groundwork for the economic policy in the 1960s (Arahi 2005). With the goal to expand the economic capacity of the country, it employed the growth-pole development approach to economic development to disperse dense industrial functions and promote economic activities in cities through the development of transportation networks. This furthered rural-urban migration from remote ares to old and new cities, and exacerbated depopulation in rural areas. The subsequent national development plans (e.g., The Second Plan of 1969 and The Third Plan of 1977) continuously aimed to raise the whole economy of the country by developing the growing sectors to be redistributed, resulting in less focus on peripheral areas.

[115] With a focus on the policy trends, several studies divide the years after 1970 into the two periods: 1) ‘Comprehensive Agricultural Policy Period’ (1970-1976) during which the policy focused on the production adjustment of rice and the measures against the heightened external pressure for agricultural trade liberalization; and 2) ‘Regional Agricultural Policy Period’ (1977-1985) for which the policy took the localism approach to policy implementation to leverage the self-governing capacities of local agencies (Y. Sato 2011; Akitsu 1996; Odagiri 2005; H. Kumagai 2001).

[116] For the years between 1960 and 1975, the agricultural population annually decreased by 743,000 on average (with the total population loss of 11.14 million) (Ouchi 2005). During this period, the urban population radically grew (e.g., the increase rates in the three major metropolises recorded 15.6% for 1960-1965, 12.8% for 1965-1970, and 10% for 1970-1975), whereas the rural population significantly declined (e.g., the decrease rates in the legally defined depopulated municipalities recorded 12.9% for 1960-1965, 13.6% for 1965-1970, and 8.8% for 1970-1975) (Arahi 2005).

affected by the energy revolution in the early 1960s, but extended to the entire country in the late 1960s (Arahi 2005). In contrast, under the slow economic growth of later years, the rural-urban migration continued, but the decline in farm population slowed along with a stabilized population increase in cities, while the farm household size shrank in depopulating areas.[117] Despite further cooling of rural-urban migration with the decreased labor demand in cities by the early 1980s, the depopulating areas experienced a transition from a social to a natural decrease in population (Arahi 2005; Nagata 1989).

These demographic trends involved suburbanization in the metropolitan outskirts on one hand and aging in the depopulated areas on the other. Suburbanization became significant at the urban fringes since the 1970s after the saturation of cities, resulting in farmland diversion for urban and industrial land-uses as well as urban sprawl in agricultural landscapes (Arahi 2005). This often provided negative externalities for both farming and non-farming residents, and sometimes gave rise to conflicts between these parties.[118] In the depopulated communities, the upward shift of the gravity center of the age pyramid clouded their reproductive capacity.[119]

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[117] For the years between 1975 and 1985, the agricultural population annually decreased by 336,000 on average (with the total population loss of 3.36 million) (Ouchi 2005). Compared to the earlier years, the urban population more slowly grew (e.g., the increase rates in the three major metropolises indicated 4.9% for 1975-1980 and 4.3% for 1980-1985), while the rural population less significantly declined (e.g., the decrease rates in the depopulated municipalities showed 3.7% for 1975-1980 and 3.1% for 1980-1985) (Arahi 2005). The decrease rate of farm households in depopulated municipalities between 1970 and 1985 became less than in the 1960s (e.g., 1.9% for 1970-1975, 1.7% for 1975-1980 and 0.2% for 1980-1985 compared to around 4% in the 1960s). Despite the slowed pace, the population in these areas steadily decreased even in the 1970s and onward (e.g., with the decrease rates in the depopulated municipalities of 8.8% for 1970-1975, 3.7% for 1975-1980, and 3.1% for 1980-1985) (Arahi 2005).

[118] On the one hand, some farmers came to rely on agricultural chemicals, not farmyard compost from nearby forests that became unavailable due to land conversion, and bore additional cost to control agrichemical diffusion for neighbors, while others suffered from the interfusion of domestic drainage into agricultural water. Non-farmers, on the other, often depreciated the dwelling environment with the drift hazard of agrichemicals (Arahi 2005).

[119] Along with the rural-urban migration and the demographic structural change (i.e., the decline in birth rates and infant mortality), the age pyramid for the period between 1960 and 1985 changed in three aspects: 1) decline in young population under 15 years of age (decreased by 65.6%); 2) shrinkage of productive-age (15-64 year old) population (decreased from 7.28 million to 5.20 million); and 3) increase in elderly population over 65 years (increased from 0.88 million to 1.38 million) (Arahi 2005).

Yet, the farming cohort born during the decade between the late 1920s and the early 1930s (hereafter called the core cohort) continued to be the agrarian core labor until 2000 when they started to retire in their 70s.[120] This generation was a niche between the one that suffered from the war and those whose life courses were influenced by economic growth. The efflux of surplus labor in farming families between the mid-1950s and the mid-1960s was followed by the drain of heirs since the 1960s (Arahi 2005). The core cohort was in their late 20s or early 30s in the late 1950s, and many of them presumably had been married and unable to freely move due to familial engagements and social norms (Ouchi 2005). The aging of agricultural population progressed with this generation and was less significant than after 1985 but raised concerns of successors to farming (Ouchi 2005). Against the backdrop of these changes in agricultural population and land, the following discusses the changes in two key social institutions in governing farmland during the second postwar period.

Farming village communities:

Despite the demographic decline, farming villages decreased less than after 1990 (see Table 2.2), but were qualitatively transformed in terms of internal structures and external relations (Ouchi 2005). The internal composition, which had comprised small owner-farmers, stratified with the involvement of part-time farmers since the 1960s and non-farmers particularly since the 1970s.[121] First, the farming population was divided into two groups: 1) full-time farmers

[120] The statistics based on the national census show the share of this cohort in the productive-age population engaging in farming continued to be the largest between 1960 (12.2%) and 1995 (20.1%) (Ouchi 2005).

[121] The results from the national survey conducted between 1955 and 2000 show that the average share of farm households in a faming village decreased from 75.0% in 1955 to 60.9% in 1960, and that after the change in the definition of a faming village in 1970, it decreed from 45.7%to 23.4% for the period between 1970 and 1980, and then to 15.7% in 1990 and 10.8% in 2000 (Ouchi 2005).

engaging in commercial farming, and 2) part-time farmers engaging in subsistence farming (Ouchi 2005; Imamura 1979). In land-extensive rice farming, the former increased the farm scale to secure profitability by farming the land owned by part-time and non-farmers, leading to informal tenancy contracts that flexibly accommodated either partial, temporal or full-time farming among owner-farmers (Sasaki 1985; Kawakami 1979; Ohara 1980). To engage in large-scale farming, full-time farmers became either cooperatives or large family-run farms.[122] Some cooperative farms stabilized part-time farmers within their organizations, while others resulted in the spin-off of large farmers who sought better productivity instead of shared, but limited profits (Kikukawa 1979; Kawakami 1969).

The tenancy market largely favored lenders (i.e., part-time or non- farmers) over borrowers (i.e., full-time farmers) (Kikukawa 1979). Owners' interest in holding farmland was high when the farmland value reflecting large demand for land far exceeded the agricultural profitability.[123] In addition, many of those who seasonally or temporally engaged in farming were reluctant to let others use their land over a fear of destabilization of land conditions (Imamura 1979). To secure agricultural profitability, full-time farmers expanded their farms through contracts rather than purchases, and often competed to cut prices of contract farming or to settle for a higher rent than a legally standardized one (Sasaki 1985; T. Ito 1980; Kawakami 1969). Consequently, besides the procedural problems, owners' fears of losing competitive

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[122] Since the 1950s, many groups of local farmers (*nogyo-shudan*) mostly in the form of cooperatives had been organized to share the use of agricultural machines and facilities often by adopting the Agricultural Structure Improvement (ASI) program for initial investment (Ouchi 2005; Sasaki 1985; Kikukawa 1979). Besides, large family-run farms developed with the popularization of middle-sized agricultural machines (T. Ito 1980).

[123] In reaction to the rising land prices in other sectors, farmland prices went beyond the value of agricultural profits, amplifying a contradiction between the rising land prices and the controlled land rents. These contributed to the progress in de-facto tenancy through informal tenancy contracts (Imamura 2003).

advantages from informal contracts impeded formalization of contracts even after a series of legal amendments.[124] Thus, tenants had a disadvantage of financial cost and a lack of clear prospect for farm management, often hindering their investment for further agricultural development (Shinohara 1974). Nevertheless, non-market factors also interplayed in reconciling the two parties. Tenants often held non-price competition by enhancing social credibility and/or cooperation with other farmers based on kinship or communal trust, boosting their status from mere tenants to stewards to allow for long-term contracts (T. Ito 1980; Ohara 1980; 1981).

Second, farming villages further stratified with the increased share of non-farm households. This fragmented the integrative function of villages. When the majority were owner-farmers, villagers shared interests in residence and production (Domoto 1987). With many disengaged temporally or regularly from farming, production split off from the general function of residence.[125] Even part-time farmers involved in tenancy were not confined to land-based social relations in a village, but became freed from such relations by securing outside income sources (Ouchi 2005). Albeit the regional variation in the functional restructuring, the village-based collective activities associated with farmland loosened as the shared responsibility for farmland management became no longer the un-negotiable norm (Imamura 1979).[126] In many

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[124] In addition to the upper limit of farm management scale that was regulated by the ALA before its 1970 amendment (Ouchi 2005), several studies point to the procedural barriers against formal contracts, including cumbersome procedures, inflexibility of tenancy arrangements, as well as the owners' fears of losing competitive advantage for land rent and farmer's status (Sasaki 1985; Ohara 1980).

[125] Both the residential and production functions of villages had been coordinated at a village committee (*Buraku-kai*) since the prewar era, but since the mid 1950s the agricultural production function has split off from the committee and moved to other groups such as administrative districts, farm-household cooperatives, and Land Improvement Districts (Ouchi 2005). The results from the survey of agricultural villages based on census in 1970 suggest that the decline in agricultural functions such as collective farmland maintenance was affected by the increase of part-time farmer but more definitively by the increase of non-farming population (Ouchi 2005).

[126] The functional restructure of farming villages progressed with regional differences reflective of the degrees of urbanization, depopulation, disengagement from farming and development of other industries (Domoto 1987).

villages, however, although the agricultural production function became limited to a group of active farmers, residential and farmland management functions remained in an entire village community (Domoto 1987; Ouchi 2005).[127]

The external relations of farming villages changed when agricultural policy shifted its focus from a family to a village in the 1970s with an aim to improve productivity.[128] Yet, this policy shift also followed socio-economic and political changes. First, agricultural activities became systematically integrated into broader networks (e.g., administrative, JA, and enterprise networks) already in 1960 (M. Takahashi 1982; Ouchi 2005). For instance, agricultural activities ranging from production to sale became integrated into a network since the 1950s wherein organized farmers at a village often belonged to a specific enterprise of a certain agricultural product. As such, farm management became incomplete in a single farm family and can be hardly improved independently. Second, the ABA policy urged a farming village to collectively engage in agricultural modernization and scale expansion. As a featured program, the Agricultural Structure Improvement (ASI) program consisted of three integrated projects — to improve land, facilities and management — all of which entailed collective decision-making and action (Ouchi 2005). Farmland liquidation under the ABA also involved multiple farmers and compelled collective arrangements to facilitate scale expansion (M. Takahashi 1982). Finally, in

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[127] Among the three elements of a farming village, including farming, farmland management, and living or residing, based on the census data in 1980, Ohuchi (2005) suggests that in many villages the first element moved specifically to a farmers' group whereas the latter two remained in an entire village community.

[128] The year of 1970 is said to be the first turning point of the agricultural policy under the ABA policy, largely moving from the decade fundamentally building on the ABA, called 'Basic Act Agricultural Policy Period' (*Kihonho-nosei-ki*) (1961-1969), to shift the focus from individual farm families to the broader framework of them to improve agricultural productivity (Ouchi 2005). Several studies divide the years after 1970 under the ABA into the periods: 1) 'General Agricultural Policy Period' (*Sogo-nosei-ki*) (1970-1976) during which the policy focused on production adjustment of rice in response to the fat harvest for the few years since 1967 and the heightened external pressure on trade liberalization; and 2) 'Regional Agricultural Policies' (*Chiiki-nosei-ki*) (1977-1985) for which the policy took the localism approach to policy implementation to leverage the self-governing capacities of local agencies (Y. Sato 2011; Akitsu 1996; Odagiri 2005; H. Kumagai 2001).

response to the noticeable agricultural decline, local movements have developed since the 1960s in various parts of the country to revitalize farm businesses based on villages (M. Takahashi 1982). A prime example was the One Village One Product movement (*Isson Ippin Undō*) that evolved from the New Plum and Chestnut movement (*Ume-Kuri Undō*) in 1961 in Ohita Prefecture (Fukuda 1984).

In particular, the production adjustment program has defined farming villages as a unit of program implementation since the 1970s to reorient rice-producing farmers from production increase to production control. The program bolstered the subsidiary system in which a farming village served to attain policy goals, but resulted in contradictory outcomes for farmland aggregation.[129] Beginning in 1969 on a trial basis, but vigorously from 1970 the program imposed a quota on farm families with subsidies to convert crops from rice to others to be grown on paddies.[130] The crop conversion quota was often determined stepwise from prefectural to municipal, village and finally farm-household levels (K. Abe and Kitahara 2005; Nakawatari 2009; Okura and Mochida 2004; J. Ito 1994). Some villages maneuvered collective means to achieve the goal and at the same time rendered effective farmland use (e.g., using program subsides for land improvement) (K. Abe and Kitahara 2005). Others encountered some owners claiming back their farmland from tenants to receive subsides but often idling the land

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[129] Several studies attribute the inhibitory program impacts on farmland liquidation to the uniform allocation of quota volume across different areas (J. Ito 1994). Ministry of Agricultural, Forestry and Fisheries (MAFF) admitted this defective in its policy document "The basic direction of new policies for food, agriculture and rural areas" (1992) and stated the need for improvement of the program so that farmers can pursue production adjustment based on their judgements.

[130] For the first measure called 'Rice-crop conversion measures' (*Inasaku-tenkan-taisaku*) (fiscal 1971-1975), the quota was set based on the rice yields required for production adjustment (Nakawatari 2009). Since the subsequent measures called 'Rice paddy general use measures' (*Suiden-sogo-riyo-taisaku*) (fiscal 1976-1977), the quota has changed to that based on the farmland area to be used for crop conversion given the idea that production adjustment should not be a mere means to reduce rice production but effectively use farmland for food security.

(Shinohara 1974).[131] Since 1978, the program undertook a new scheme to compel a local community not only to reinforce production adjustment but also to collectively control farmland use.[132] In response, some villages pursued collective farm management for crop conversion through tenancy for which program subsidies supplemented the land rent (Takeshi Miyazaki 1980). Others faced the throwback against farmland aggregation where owners pulled back their land from tenants to secure a higher rate of subsidies than the rent and unproductively conserved the land (Ohara 1981). In addition, since the 1970s the program furthered the move from full-time to part-time farming to compensate for the agricultural income that declined through production adjustment in the face of rising living costs (Sasaki 1985; K. Abe and Kitahara 2005).

Farming families (*ie*):

Between 1960 and 1985, farming families experienced vital changes in quantity and structure. Besides the quantitative decrease by nearly 30% nationwide (see Table 2.2), farm households underwent the shrinkage of household size and the aging and constitutive shift of family members engaging in farming (Ouchi 2005).[133] First, household size reduced in general with the remarkable downscale for the dozen years from 1960, which was followed by the slowed

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[131] A village in Southeastern Shikoku mountains faced the rise in a movement of landowners to restore their farmland that had been under informal tenancy arrangements, given much higher financial incentives from the program than the land rent (Shinohara 1974). The financial incentives of the program amounted to JPY 24,000-29,000 per 0.1ha and JPY 29,000-34,000 respective for idling rice paddies and for crop conversion, compared to JPY 3,000-4,000 per 0.1 ha of annal land rent. Under the program, owners applied to the program for idling of rice paddies and received the financial incentives.

[132] The new measures called 'Rice-paddy use restructuring measures' (*Suiden-riyo-saihen-taisaku*) (1978-1986) incorporated the mechanism for farmland liquidation in the program so as to attain both goals of production adjustment (i.e., to resolve the excessive rice production and the declining self-sufficiency) and those of structural improvement to accord with crop demands through farmland liquidation and improvement (Ohara 1981). The new measures also involved the scheme for local planning of collective crop conversion, for which the government offered additional economic incentives (Takeshi Miyazaki 1980).

[133] The number of farm households decreased by 27.8% between 1960 (6.06 million) and 1985 (4.38 million) (see Table 2.2) (Ouchi 2005).

shrinkage.[134] This downscale involved the regional difference featured with the salient retrenchment in the depopulating regions and the slight reduction in the suburban regions. With the change in the economic basis of farm families, the postwar economic growth counteracted the endogenous regional distinctions and mitigated the stark downsizing of suburban farm families through part-time farming while furthering the population drain from remote areas.[135]

Second, the composition of farm families transformed in stages during this quarter-century with the change in age and gender roles in farming. In the 1960s, with the gradual aging as well as the drain of young adults, the employment of the middle-aged males in other sectors gave rise to the feminization of farming. The phenomena called "*San-chan nogyo,*" meaning farming by "mommy, grandpa and grandma" became popular, whereas the ratio of female farmers increased and was the highest at 55.5% in 1970 (Ouchi 2005).[136] However, this feminization has inverted since around 1975 resulting from the disengagement of younger females. This inversion facilitated the expansion of contract farming and tenancy arrangements (Ouchi 2005; Kawakami 1979).

Regardless of these changes, the functions of farm families associated with the 'trinity' hardly transformed. As a farm family, the 'living unit' where constituents shared subsistence and

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[134] This downscale of a farm households (per-household members from 5.71 in 1960 to 4.67 in 1972) was even more radical, compared to Western Europe (e.g., France and UK) where it took about a century to downscale a farm family size by one person (S. Abe 2005). In Japan, this sharp decrease in the 1960s followed the 1950s during which large farm families (more than 6 members per household on average) were dominant, and preceded the years since the 1970s for which smaller families (more than 4 but not more than 5 members per household on average) steadily but slightly shrank (Ouchi 2005; S. Abe 2005).

[135] Since the prewar era, the farm household size had been distinctive between the eastern part of the country with larger families (i.e., about 7 persons per household on average) and the western part with smaller families (i.e., about 5.5 persons per household on average) at least by 1955 (Ouchi 2005). However, the regional comparison between 1955 and 2000 suggests that the new regional distinctions overrode the previous regional characteristics.

[136] The ratio of female farmers was the highest for the cohort of 30-34 year-old females in 1970 (63.4% of females compared to 36.6% of males). This suggests that the females born in the 1960s who were engaged in childcare and housekeeping filled the gap in farming accrued from the farm disengagement of the male cohort born subsequently after those born in the late 1920s and early 1930s (Ouchi 2005).

residence was identified with the 'farm management unit,' whereby living and production were united (Ouchi 2005). For farm management, the 'patriarchy' defined the roles and responsibilities of a farm operator in controlling farmland and labor, while the 'primogeniture' prescribed the inheritance and continuity of the farm body (Ouchi 2005; Toshitani 1987). This functional mechanism of the unit for both living and farming remained mostly unchanged even with the relative decline of agricultural income (K. Abe and Kitahara 2005). To secure this functional mechanism, the off-farm work engagement extended to the entire family to seek off-farm income, resulting in the popularization of part-time farming and tenancy arrangements (K. Abe and Kitahara 2005; S. Abe 2005).[137] As coping strategies, farm families metamorphosed with generational subdivisions and seasonal off-farm work engagements.

A farm family, typically as a multi-generational household, became subdivided chiefly between generations in terms of division of labor, lifestyles and accounting.[138] This subdivision was associated with the changes in household economy. First, their reliance on self-sufficiency was reduced. Under the state initiative to develop agricultural production bases (i.e., the selective expansion policy prescribed in the ABA), the self-sufficiency, which used to take advantage of homegrown and homemade foods (e.g., rice, vegetables, fermented soybean paste), largely diminished (S. Abe 2005). Second, the consumption economy became increasingly cash-based and commercialized. Due to the new lifestyle relying on consumer products along with the progress of part-time farming, the share of cash expenses radically increased for a decade from

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[137] Following the drain of second- and third-eldest sons to cities, the off-farm work engagement among the family members spread from eldest sons as heirs, to females and then family heads during the period between 1960 and 1985 (S. Abe 2005). This process involved the diversification of employment forms, and resulted in more than a half of farm families classified as the second-rank classification, in which the main income source came not from farming but from other jobs.

[138] The residence form also became often subdivided in a three-generation farm family by separating their bedrooms between generations in the forms of a main house and annexes on a same premise (Ouchi 2005).

1955 (by more than 20%) though stabilized after the mid-1970s.[139] Third, the farm household economy became broadly socialized. This progressed with the externalization of some domestic activities for living (e.g., purchases of ready-made products, use of childcare and nursing-care services) (S. Abe 2005). These changes allowed for relative independence of the household economy from a family and a village, encouraging individuals to pursue freedom of choice for their living. With the diversification of income sources, the farm household economy became segmented into larger (generation-based) and smaller (individual-based) pockets within a family (S. Abe 2005). Yet, the externalized domestic activities were associated with a fixed and forced financial burden in payment for public services, taxes and social security, necessitating each member's contribution to the entire family account (S. Abe 2005). Thus, the household economy sustained as a living unit but allowed for individual discretion of financing (S. Abe 2005).

Seasonal off-farm work engagement, called '*Dekasegi,*' also characterized this metamorphic transformation of farm families. The phenomenon was limited to certain regions and time periods, but reflected the nationwide socio-economic trends for the second postwar period. The workforce for seasonal work was procured from the pure agricultural areas located far from major cities, where farmers had no other choice that would have allowed for part-time farming (Kitahara and Abe 2005).[140] This phenomenon occurred in the 1960s and 1970s, forming its peaks in 1963 (0.29 million workforce) and 1973 (0.30 million workforce) (Kitahara and Abe

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[139] The statistics from the survey conducted by MAFF show the remarkable increase in the share of cash expenses in the farm household economy for a decade between 1955 (56.3%) and 1965(78.3%), followed by the stabilization after 1975 at the level around 85% (S. Abe 2005). For the period between 1960 and 1985, the in-kind contribution to the household economy decreased from 33.2% to 14.7%, while the share of the cash expenses increased from 66.8% to 85.3%.

[140] Three major regions that procured seasonal off-farm workers included Tohoku, Kyushu (particularly South Kyushu) and Hokuriku regions (Kitahara and Abe 2005). In the rest of the country, some regions (e.g., suburban, Hokkaido, Kyushu Chugoku, Shiokoku regions) were largely featured with the exodus of entire farm families, while others (e.g., Kanto, Tokai, Kinki, Sanyo regions) were featured with home-based part-time farming (Arahi 2005).

2005). The demand mechanism for the workers chiefly built on the construction industry where the projects under multi-layered subcontracting systems demanded cheap, flexible and casual labor (Kitahara and Abe 2005). The supply mechanism stands in the dry-field farming region of South Kyushu for the first peak and then on the rice-producing regions for the second peak. The former was affected by the decline in dry-field farming under the ABA policy since 1960s, while the latter resulted from the agricultural income decrease, the household expenditure increase and the labor surplus in rice farms (Kitahara and Abe 2005). The number of these workers took a downward turn in accordance with the low economic growth in the early 1970s (Kitahara and Abe 2005). The phenomenon led to physical and mental stresses of farm families, and thus elicited their interest in hosting enterprises and public works for local employment, which facilitated off-farm work for all family members. The cash earnings from off-farm work allowed each family to possess farming machines, and then fomented small, family-run farming in combination of part-time farming, rather than developing large or collective farming (Kitahara and Abe 2005).

2.2.3 The third postwar period (1986-2005)

1) Political Institutions

The third model is linked to the trade liberalization of the mid-1980s. Following the Plaza Accord in 1985 and then the eighth round of the General Agreement on Tariffs and Trade (GATT) between 1986 and 1994, known as the Uruguay Round (UR), Japan's government was forced to reexamine agricultural policy (Horiguchi 1995; Ueda 2018; K. Morita 2004; Kishi

2009).[141] In anticipation of negotiations including the rice market, the private advisory panel to the then Prime Minister Nakasone in 1986 prepared the "Maekawa Report" (Report of the Advisory Group on Economic Restructuring), which highlighted a need for change in the price-support policy and called for structural reform to open Japan's market (H. Kobayashi and Iiyama 2001).[142] In 1988, the Japan-US Agricultural Negotiations also agreed on the gradual expansion of the import ceiling and the removal of the quantity limit for beef and oranges.

These trends allowed for the departure from the longstanding regime ruled by Liberal Democratic Party (LDP), leading to the demise of the political relationship called "Iron Triangle" between a ruling party, bureaucracy and agricultural cooperatives.[143] Seeing the agrarian villages as a powerful voting bloc (called *hyoden* literally meaning "a ballot rice field"), the LDP promoted agricultural policy in the interest of agricultural cooperatives to which most farm households belonged under the system of Japan Agricultural Cooperatives (JA) (Honma 2010). The cooperatives often collectively pressured the political regime to pursue conservative policy (Honma 2010). Given the mechanism where most subsidies were given to farmers through the cooperatives, they were able to have large number of farmers as members and thus assure considerable assets, serving to provide a collective ballot (Honma 2010). The Ministry of

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[141] The Praza Accord was an agreement between the governments of France, Western Germany, the US, the UK, and Japan to depreciate the US dollar relative to other currencies. The US intended to alleviate the trade deficit with Japan that enjoyed the trade surplus from export of industrial goods. Prior to this, Japan had been required since its participation in GATT in 1955 to meet the international standards through economic liberalization, and began to liberalize exchange control with the Trade and Exchange Liberalization Plan General Rules in 1960. However, Japan had received little attention from the international community given the little share of the trade volume in the early 1960s.

[142] In addition, the growing deficit in the foodstuff control revealed the limitation of the rice price support. The expenses for the foodstuff control increased from JPY 118.2 billion in 1965 to JPY 490.6 billion in 1973, JPY 802.2 billion in 1975 and then JPY 1,000 billion in 1980 (Kako 2006).

[143] The LDP had continuously operated as a ruling party until 2009 since the mid-twentieth century except for a ten-month period in 1993-1994, when a small group split from the LDP to seize power as part of a coalition that did little more than pass an electoral reform bill before falling apart (Krauss and Pekkanen 2010).

Agriculture, Forestry and Fisheries (MAFF) also joined the clientelism to secure budget procurements. This relationship skewed support for the conservative policies including rice policy (Shimomura 2004; Tsuruta 2007; K. Yamashita 2011). However, the LDP lost a majority at the Upper House election in 1989 for the first time since its formation in 1955, on the contested grounds including the trade liberalization. This was a historic event, as expressed "the mountain has moved" by Ms. Takako Doi, a leader of the Social Democratic Party of Japan (SDPJ).[144] It resulted in the formation of a ruling coalition involving three other parties, leading to the fragmentation of the Triangle (Chen 2010; Tsuruta 2007).[145]

Following these changes, the third model took a further multi-layered form to ensure farmland's contribution to the whole society. As a means to outpace global competition, the new policies attended to stronger farm management foundations. Replacing the agricultural policy based on the ABA (1961), the Basic Direction of New Policies for Food, Agriculture and Rural Areas (hereafter called New Policy) was introduced in 1992. It set out the binary goal in its 'two-wheel policy': 1) industrial policy to foster competitive agricultural management, and 2) rural development policy to insure agricultural multifunctionality (Ueda 2018, 29). This was followed by the reform of the ALUP Act (1980) to establish the Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act) in 1993, which offered the core mechanism of the third model. By design, the former promoted farmland liquidation to any available farmers regardless of their entitlement to farmland ownership, and the latter geared farmland aggregation

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[144] Ms. Doi made this remark, honoring the victory of her party that won a larger number of seats (46 seats) compared to that of the LDP's (36 seats).

[145] Besides the LDP, three other parties included the Social Democratic Party of Japan (SDPJ), the New Komei Party (NKP) and Democratic Socialist Party (DPS). The SDPJ advocated the establishment of a socialist Japan. The NKP advocated humanitarianism, while the DPS advocated social democracy and welfare-state development and opposed totalitarianism.

to farm managers with stronger management foundations. The third model set the target of farmland aggregation by 'certified farmers' who plan to expand scale and improve management. In addition, the third model leveraged the prefectural agencies to coordinate the village-municipal agencies with national policy goals.

This model has metamorphosed throughout the administrative reform since the 1990s, involving clashes between the farming and other sectors. In the 1990s, the public increasingly criticized the bureaucratic structure of the state when the bubble economy burst with the dissolution of the long-lived singular LDP's ruling.[146] On the one hand, the Act on the Promotion of Decentralization was established in 1995 to initiate the ministerial-level discussions for decentralization.[147] On the other, the Administrative Reform Committee, the third party organization formed by the government in 1994 to address administrative reform, leading to deregulation.[148]

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[146] Namikawa (2016, 5–7) explains that the policy discussion of administrative reform originated from the Second Extraordinary Administrative Research Council, which started in 1981. Yet, he notes that the Third Special Administrative Reform Promotion Council, which started in 1990 as a private advisory council to the prime minister to redefine the administrative reform upon the socio-economic and political turmoils in the late 1980s, set the course to further the discussions on the administrative reform for both decentralization and deregulation. Shimizu (2002, 51) calls the 1990s 'the decade of reform' by renaming 'the lost decade' that meant the financial problems after the bubble economy burst in the late 1980s. The reform of political and administrative structures progressed throughout the decade particularly after the launch of the eight-party-ruling coalition in 1993, and resulted in the institutional restructuring, including the establishment of the Comprehensive Decentralization Law (1999) and Administrative Information Disclosure Law (1999), the restructuring of ministries and agencies (2001), and the introduction of policy evaluation system (2001).

[147] The Comprehensive Decentralization Law, established in 1999, involved a large reform of Local Autonomy Act (Shimizu 2002; Murayama 2007). Despite several previous policies that took a decentralized approach (e.g., Act on Establishment of Agricultural Promotion Regions (1969), Third Comprehensive National Development Plan (1977)), most programs and projects relied on the subsidy distribution mechanism called 'Agency Delegated Function System,' where local governments as subordinate agencies of the MAFF distributed subsidies for policy implementation (Shimizu 2002). The MAFF stood in a position to oppose decentralization through the ministerial negotiations, seeing that food security should be under national responsibility. Yet, it was forced by the public discourse to direct an attention to "democratization of local autonomy" and "streamlining of administrations for efficiency" (Shimizu 2002, 55).

[148] Upon the launch of Murayama's new Cabinet, this committee was initiated against the former prime minister's initiative of raising tax. The discussion at the committee came to skew towards deregulation under the strong influence of the financial community (Namikawa 2016).

Consequently, a series of negotiations with the participation of different ministries and agencies as well as scholars and experts facilitated both decentralization and deregulation of agricultural policy and its administration. The agricultural administrative framework was extensively decentralized at the end of the 20th century, shifting some authorities of farmland controls from the state to the local governments.[149] At the same time, the discussion on farmland acquisition by business corporations evolved. It resulted in the conditional involvement of business corporations in the farming sector, while maintaining the 'cultivator-oriented principle' (*kosakusha-shugi*) to continuously integrate agricultural production and farmers' livelihoods in farmland use. The remainder of this section details the political processes of emergence and operation of the third model.

Basic Direction of New Policies for Food, Agriculture and Rural Areas (New Policy) (1992)

As a keynote to the third model, New Policy was spelled out by the MAFF in 1992 to combine both industrial and rural development aspects of agriculture into the 'two-wheel' policy (Ueda 2018, 29). This development followed the trends including: 1) the heightened international pressure on the agricultural market; 2) the lowered self-sufficiency rate; and 3) declining local communities particularly in areas less favored for profitable farming (Horiguchi 1995). These changes were beyond the level that was presumed under the ABA (1961) that merely focused on farmers and farming, and thus urged the ministry to stretch its wings to food, rural areas and the

[149] As part of Comprehensive Decentralization Law (1999), 76 laws related to the MAFF's administration were amended along with the abolition of the Agency Delegated Function System (Shimizu 2002). Among others, the Agricultural Land Act was amended in 1999 and 2001 to shift the authority of authorizing middle-sized farmland conversion from the national to the prefectural levels, and then the authority of authorizing small farmland conversion from the statutory entrusted functions to the autonomy self-government functions (Decentralization Reform Expert Committee 2014). Also, the Act on Establishment of Agricultural Promotion Regions (EARP Act) was amended in 2000 to shift its prefectural level administration from national government's delegation to the autonomy self-government functions (Shimizu 2002; Decentralization Reform Expert Committee 2014).

environment (Horiguchi 1995). With this broader scope, the New Policy involved two major schemes: 1) farmland liquidation; and 2) development of hilly and mountainous areas (Murayama 2000).[150] Nevertheless, under the influence of the Uruguay Round (UR) negotiations, the chief goal was to develop 'efficient and stable farm management entities,' as this was a central theme to implement the latter scheme (Murayama 2000).[151] With the understanding that the lack of farmers capable of competitive farming was a primary cause of agricultural problems, the New Policy favored a selective approach by which agricultural production would converge onto 'efficient and stable farm management' (Ueda 2018).[152]

The New Policy introduced the notion of 'efficient and stable farm management entities,' which became the bywords of the subsequent policies (Kishi 2009). With this concept, the government discerned 'management entities' (*keiei-tai*) from 'farm families' (*noka*) to illustrate the farmers who would be responsible for future agriculture, by defining them in regard to annual working hours, lifetime income, independence, management capabilities, and application of

[150] The former scheme was enshrined into the Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act)(1993), while the latter was legislated as theAct on the Promotion of the Improvement of Basic Conditions of Agriculture, Forestry and Other Business in Hilly and Mountainous Areas (1993) (Murayama 2000; K. Morita 2004). Morita (2004) explains the underlying idea that in response to the policy of opening the agricultural market internationally, the government promoted the former scheme to enhance the structural policies for global competitiveness, but applied the latter scheme to the disadvantageous areas where improvement of competitiveness was inevitably constrained.

[151] Prior to the launch of the UR in September 1986, a private advisory body to the then prime minister Nakasone published a report called "Maekawa Report" in April 1986, which favored trade liberalization of agricultural products as part of the economic structural adjustment for international cooperation (Ueda 2018). In response, in November 1986 the Agricultural Policy Council presented the policy document called "Basic Orientation of Agricultural Policy towards the 21st Century" in which the direction to keep up with the trade liberalization through the improvement of agricultural productivity. Accordingly, the producers' price of rice (i.e., the price rate at which the government purchases rice from producers) was lowered in 1987, as followed by the selective approach to agricultural policy in the New Policy of 1992.

[152] The advisory committee to the New Policy (established in 1992) framed the problems as follows: 1) Japan would no longer rely on agricultural produce from abroad given the plausible stringency in the global food supply demand balance; 2) the continuous decline in agricultural workforce was leading to the decline in food availability along with agricultural abandonment resulting from the outmigration of young and middle-aged males from agricultural villages; 3) the continued agricultural protection would not result in favorable scenarios; and 4) the securement of those motivated and capable to engage in farm management would resolve the problems, which would be enabled by the attractiveness and rewarding of farming as a choice of jobs (K. Morita 2004; Murayama 2000). Despite the nuanced intention favored for 'selective' or 'concentric' approach, these terms were not used in the New Policy and they appeared first in the First Basic Plan for Food, Agriculture and Rural Areas, which was developed under the New Policy, as it states "various programs and measures are centered on farm management to be fostered" (Kishi 2009, 115).

market competition principles (Honma 2006; Murayama 2000; Kishi 2009).[153] In addition, the policy discussions for the New Policy developed the idea of incorporation of management entities as legal persons and raised the issue of farmland acquisition by business corporations (Murayama 2000; E. Seino 2010). The New Policy numerically set the target of land-extensive farming for the next 10 years, for which 80% of production would be borne by approximately 150,000 'individual management entities' and approximately 20,000 'organizational management entities' (Honma 2006; Ueda 2018; Kurauchi 1998).[154] It estimated that the production cost would be reduced to 50-60% by expanding the scale of individual entities to 10-20ha and that of organizational entities to one or a few several farming villages. As such, it typified desirable management entities as those with 10-20ha scale on consolidated farmland applicable to middle-sized agricultural machines, but without details of their relations to other sectors and local communities to promote farmland liquidation (e.g., relationships between efficient farm management and small and/or part-time farming, roles and responsibilities of village communities) (Murayama 2000; Horiguchi 1995).

Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act) (1993)

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[153] Although the term 'management entities' appeared in the report from the Agricultural Policy Council in 1980 (Basic Direction of Agricultural Policy in the 1980s), the New Policy further specified this term with concrete conditions of such entities (e.g., working hours, lifetime income) (Kishi 2009).

[154] The term of 'individual management entities' was meant for those run by an individual person or a household, while that of 'organizational management entities' was for those run conjointly by multiple persons or households. In either of them, main engaged persons were expected to earn the lifetime income equivalent with that of average local corporate employees, amounting to about JPY 8 million (i.e., approximately USD70,000) annually (Honma 2006; Kurauchi 1998).

Following the New Policy, the ALUP Act (1980) was renamed to the Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act) in 1993. This legal renewal involved two major changes: 1) the extension of the goal; and 2) the multi-stratification of the implementation agencies (Ueda 2018; Sekiya 2002). First, the renewal added capacity development to the goal of farmland liquidation (Sekiya 1997). Though the ALUP Act promoted tenancy for farmland liquidation without a specific direction to farmland aggregation, the PIAMF Act spelled out the goal of farmland aggregation as a means to capacity development (Sekiya 1997; Horiguchi 1995). Second, the renewal added the prefectural governments to implementation agencies to pursue farmland aggregation. The governance approach remained decentralized to build on the local arrangements so as to reflect local circumstances (Sekiya 2002). Yet, differently from the ALUP Act that authorized municipalities solely, the PIAMF Act set the two-step system where municipalities followed prefectural 'Basic Principles' to develop municipal 'Basic Concepts' for program implementation so as to coordinate with other areas for farmland management and agricultural development (Sekiya 2002). With these changes, the PIAMF Act introduced three major programs to enhance farm management foundation: 1) the System of Certified Farmers; 2) the Agricultural Land Holding Rationalization (ALHR) program (*Nochi-hoyu-gorika jigyo*); and 3) the Program for Promotion of Improvement of Agricultural Management Foundation (PIAMF program) (Sekiya 2002).[155]

First, the System of Certified Farmers set 'certified farmers' (*nintei nogyo-sha*) at the center of the systems framed by PIAMF Act to demonstrate an 'end' of farmland aggregation

[155] Besides the schemes to enhance farm management foundation, the PIAMF Act also addressed farmland abandonment, building on the stipulations that were provided by the 1989 amendment of the ALUP Act (Sekiya 2002). To address farmland abandonment, the agricultural committees became authorized to provide guidance and advices for the owners of abandoned farmland, but there were a few case of implementation.

(Sekiya 1997). The 'certified farmers' were those certified by municipalities as appropriate given their plan to improve farm management in accordance with the notion of 'efficient and stable farm management' (Sekiya 2002). Differently from previous models of farmers (e.g., 'economically viable farming families' and 'core farm families'), they were qualified in regard to improvement of farm management. The eligibilities were not limited to scale expansion, but were determined by local agencies rather than by the central government (Sekiya 2002; Honma 2006; Ueda 2018).[156] Taking over the 'use-right' scheme to collectively establish use rights at a certain area, this system also contained subsidiary measures (e.g., special exception of tax levy, finance loan) to foster certified farmers and promote farmland aggregation to them (Sekiya 2002; Honma 2006; Ueda 2018).[157]

Second, the PIAMF Act integrated the Agricultural Land Holding Rationalization (ALHR) program, which was originally introduced through the 1970 ALA amendment, into one of its major programs (Sekiya 2002). As a direct public intervention in farmland transactions to politically facilitate tenancy, the original program had made considerable progress since its

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[156] Under the ABA (1961), the 'economically viable farming family' (*Jiritsu-keiei-noka*) was defined with the unity of three attributes of farmers including family-run farm management, full employment, and income, differently from the certified farmers who were qualified based on their plan rather than their attributes (Sekiya 2002). The certification system was originally introduced with the 1989 amendment to the ALUP Act to qualify farmers' plan to expand farm scale, but it was different from the new system under the PIAMF Act, which expanded the scope to improvement of farm management not necessarily through scale expansion specifically geared at land-extensive farming, but also through agricultural diversification and intensification (Sekiya 1997; Sekiya 2002; Honma 2006).

[157] To facilitate farmland aggregation to certified farmers, the government rendered the coordination agencies of tenancy arrangements (e.g., agricultural committees, ALHR corporations) available for certified farmers, and provided economic incentives such as tax benefits (e.g., special depreciation of property tax) and low-interest loans (e.g., low-interest loan of long-term funding, called 'Super L Fund,' for agricultural investment such as farmland acquisition and facility development) (Sekiya 2002; Ueda 2018).

launch in 1970 (Sekiya 2002).[158] Yet, it applied merely to exceptions of the ALA controls of farmland transactions (Sekiya 2002).[159] To make it more broadly applicable, the PIAMF Act stipulated the ALHR program as one of the schemes to enhance farm management foundation (Sekiya 2002). The Act prescribed the ALHR corporations as those at the prefectural and municipal levels to handle farmland transactions to accord with the prefectural 'Basic Principles' and the municipal 'Basic Concepts' (Sekiya 2002).[160] It also integrated the four programs into the ALHR program: 1) the farmland transaction program; 2) the farmland trust program; 3) the investment and fostering program for 'agricultural production corporations;' and 4) the capacity development program (Sekiya 2002).[161] With these programs, the ALHR program was designed to support financing and training of 'management entities,' while expanding the categories of

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[158] By directly purchasing and selling or leasing and lending farmland, the ALHR corporations were assumed their political roles in facilitating tenancy arrangements, which cannot be expected in private transactions (e.g., removing the psychological resistance to direct communications between owners and tenants, farmland holding for the duration in absence of tenants or buyers, ensuring farmland aggregation and consolidation for the use by management entities) (Sekiya 2002). Given these roles, the ALHR corporations were established as a public corporation at the prefectural level across the country, while both the municipal governments and the agricultural cooperatives actively engaged in the ALHR program at the municipal level. As such, the political importance of the program grew in terms of the quantity of farmland transactions as well as the budget allocation.

[159] In addition, the requisites for ALHR corporations to implement the ALHR program were prescribed mostly in the government ordinances, not in a law (Sekiya 2002).

[160] The Act stipulates that prefectural governments shall develop their 'Basic Principles' where they ordain a public corporation to implement the ALHR program in their Agricultural Promotion Regions that they designated under the EAPR Act (Sekiya 2002). It also stipulates that municipal governments shall develop their Basic Concepts where they ordain a municipal government, an agricultural cooperative (only those engaged in credit businesses), or a public corporation to implement the ALHR program in their assigned Agricultural Promotion Regions (Sekiya 2002).

[161] While taking over the farmland transaction program (through which the ALHR corporations purchase or lease, and then sell or lend farmland), the Act additionally established three new programs as part of the ALHR program, including: 1) the farmland trust program (the ALHR corporations were entrusted farmland for sale and lent money to entrusters as part of sales price); 2) the investment and fostering program for 'Agricultural Production Corporations' (the ALHR corporations provided farmland, which was purchased through the farmland transaction program, as an in-kind contribution to Agricultural Production Corporations, and settled its share to corporate members in lots); and 3) the capacity development program (the ALHR corporations provided training and other capacity development support so that those interested in engaging in farm management could learn in practice about farming techniques and management methods on the land which was purchased or leased through the farmland transaction program) (Sekiya 2002). The first new program was intended to facilitate farmland liquidation through farmland purchase and sale, while the second one focused on certified farmers to be supported (Sekiya 2002). The third one involved model projects for farm management where the agricultural cooperatives as an ALHR corporation were also exceptionally allowed to engage in farm management (Sekiya 2002).

farmland and the types of farmland transactions.[162] As such, the program was re-organized to extend the intermediary role to hold and manage farmland in advance of sale and lending to ensure farmland aggregation (Sekiya 2002).

Third, building on the municipal programs under the ALUP Act, the Act introduced the PIAMF program which included 1) the Use Right Establishment Promotion (UREP) program and 2) the Agricultural Land Use Improvement (ALUI) program (Sekiya 2002). To promote farmland aggregation through collective use rights, the UREP program was extended to most types of agricultural land as well as the pre-arrangement processes prior to contracts in program implementation (Sekiya 2002).[163] To implement a locally-based initiative of farmland use as a municipal program, the ALUI program added the system of 'special agricultural corporations' (*tokutei-nogyo-hojin*) to demonstrate the use-right setting for the farmland use by certified farmers (Sekiya 2002; Kurumisawa 2016). The 'special agricultural corporations,' a type of the 'Agricultural Production Corporations' defined by the ALA, were qualified to use-right setting or contract farming on the farmland owned (individually) by the members of a local group (i.e., ALUI group) (Sekiya 2002).[164] The PIAMF Act allows the ALUI groups, if their own management activities would no longer work well, to designate 'special agricultural

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[162] Under the PIAMF Act, the farmland transaction program as part of the ALHR program come to include most types of agricultural land (including mixed land of forest and pasturage and sites for agricultural facilities) (Sekiya 2002).

[163] The PIAMF Act offered two major prescriptions in regard to the pre-arrangements leading to the development of a farmland use and aggregation plan: 1) the measures to facilitate use-right setting for the farmland use by certified farmers; and 2) the measures to have municipalities take into account the requests from Agricultural Land Use Improvement (ALUI) groups, agricultural cooperatives, or Land Improvement Districts, if any, to develop a farmland use and aggregation plan (Sekiya 2002). As such, the Act incorporated these pre-arrangement processes, which used to be outside the agricultural land system, into the system to promote farmland use and aggregation. In addition, the target area for farmland transactions was almost equivalent with the scope of agricultural land defined by the Act on Establishment of Agricultural Promotion Regions (EAPR Act), which most widely encompassed the land for agricultural purposes (Sekiya 2002).

[164] Following the New Policy (1992), together with the establishment of the PIAMF Act (1993), the ALA was amended in 1993 to relax the prerequisites for 'Agricultural Production Corporations' (*nogyo-seisan hojin*) (Sekiya 2002).

corporations' as certified farmers to be responsible for farm management, while rending the designated corporations eligible for subsidiary support (i.e., tax and financing benefits for 'certified farmers') and exception for tax payment (specifically applicable to 'special agricultural corporations') (Sekiya 2002). By making support available for such corporations, the PIAMF Act offered opportunities to develop community-based farming organizations in addition to its mainstay of individual farm management entities for farmland aggregation (Sekiya 2002; Ando 2008).

Food, Agriculture and Rural Areas Basic Act (New Basic Act) (1999):

The Food, Agriculture and Rural Areas Basic Act (New Basic Act), which was enacted in 1999 after seven years of the New Policy, served as a bridge between the third and latest models. Continuously holding the 'cultivator-oriented principle' (*kosakusha-shugi*) inherited from the second model, it bolstered the third model in terms of the concept of farmland. Moreover, it gave a foothold for the next model in respect of the notion of farmland users (Kishi 2009; Kurumisawa 2016). First, the Act reinforced the perspective of farmland as commons with social, environmental and economic functions. Prior to the enactment, the recommendation from the advisory body to the prime minister in 1998 emphasized that "farmland is not merely private property, but highly public goods to be used by society as a whole" (Kishi 2009). This perspective was manifested in the goals of the Act. Following the 'two-wheel' agenda of the New Policy, the Act denoted multiple values of agriculture, and laid out the four goals to: 1) fulfill multifunctional role; 2) secure stable food supply; 3) pursue sustainable agricultural development; and 4) develop rural areas (Kishi 2009; Kurumisawa 2016; Ueda 2018).

Differently from the previous ABA that merely focused on the economic sustainability, it acknowledged the importance of integrating production, life and nature to exert agricultural multifunctionality for the benefit of the broader society, as it added ecological and societal sustainability (Kurumisawa 2016).

Second, the Act stretched the notion of farmland users, albeit adhering to the 'cultivator-oriented principle' that farm managers should engage in farming and reside in the vicinity. It defined a village-based farming organization (*shuraku-eino soshiki*) as a management entity, and politically promoted it for the first time for efficient and stable farm management (Takeyasu 2011).[165] At the same time, it was a steppingstone to the inclusion of business corporations in the farming sector (Harada 2010, 82). The New Policy raised the possibility of accrediting business corporations as one of various management entities to be fostered (Ohshima 2003). In fear of speculative asset holding, however, the New Policy disapproved farmland acquisition by business corporations, but decided to carefully deliberate possibilities of business corporations as a form of 'agricultural production corporations' eligible to acquire farmland (Ohshima 2003; Kishi 2009; Honma 2006).[166] Subsequently a series of discussions was held on farmland

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[165] Though the New Basic Act placed the family-run farms as a major entity for 'efficient and stable farm management' to be fostered, it exhibited two other directions: 1) to secure varied types of farm managers including new farmers, females, and the elderly; and 2) to rejuvenate various 'Agricultural Production Corporations' based on farming villages and facilitate their incorporation as legal persons (Takeyasu 2011).The village-based farming organizations had been promoted since the late 1970s to sustain farmland without much cost in the critical areas lacking farm managers (e.g., the local agricultural policy special program in 1977), but became politically defined as one of diverse farm management entities to be promoted in the Act (article 28) (Ando 2008). Nevertheless, specific measures to promote village-based farming organizations remained absent (Ando 2008). Although some programs facilitated village-based collective actions and led to the organization of village-based farming (e.g., the direct payment system for inter-mountainous areas since 2000, the production adjustment program for rice farming between 2000-2003), it was after the rice policy reform in 2004 that village-based farming was designed to reform the agricultural structure (Ando 2008).

[166] While the issue of farmland acquisition by business corporations had been internally discussed at the MAFF, the New Policy made a declarative statement "Although accrediting business corporations for farmland acquisition is inappropriate due to the fear of speculation and asset holding, there is a need to further deliberate whether to allow for farmland acquisition by business corporation as a form of an Agricultural Production Corporation, carefully taking into account of possible impacts on agriculture and farming villages." (Honma 2006, 94).

aggregation in response to the UR conclusions in 1993, whereas the issue of farmland acquisition by business corporations was debated to address the critiques from the promoters of a deregulated market (Sekiya 2002; Horiguchi 1995; Higashiyama 1995; Godo 1996; Honma 2006).[167] In the end, the New Basic Act adhered to the 'cultivator-oriented principle' with the understanding that 'agricultural production corporations' consisting of farm families could ensure agricultural sustainability (Kurumisawa 2016). Failing to reach an agreement, however, the policy consideration for the Act noted the potential of relaxing the restrictions to 'Agricultural Production Corporations' to allow business corporations to engage in land-extensive farming (Sekiya 2002; Kishi 2009; Honma 2006).[168]

Amendment to the Agricultural Land Act (2000):

The amendment to the Agricultural Land Act (ALA) in 2000 conditionally accredited business corporations as a form of 'Agricultural Production Corporations' to engage in farm management. This amendment followed the overhaul of agricultural policy in response to the administrative

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[167] Following the New Policy (1992), and specifically the report from the Agricultural Policy Council in August 1994, the MAFF presented the policy document 'Overview of the Responses to the UR' in February 1995 and declared the goal to liquidate farmland of 1.5 million ha owned by the farm households engaging in part-time farming or those in the absence of successors by 2000 and stated the need to accelerate farmland liquidation in a pace of two to three times of farmland liquidation in the past decade (Higashiyama 1995; Godo 1996). At the same time, since December 1995 when the Administrative Reform Committee (launched in December 1994) submitted a report on deregulation, the stakeholders inside and outside the farming sector had discussed the issue of farmland acquisition by business corporations (Honma 2006). Thus, prior to the enactment of the New Basic Act, the active discussions were held not only at advisory bodies or policy councils but also in various publications (Sekiya 2002).

[168] The final recommendation by the advisory body to the prime minister in September 1998 indicated the unattainable agreement on the involvement of business corporations in the land-extensive farming due to the fears of speculative acquisition of farmland and local confusion for water and land management (Honma 2006). It also implied the direction to relaxing the system of agricultural production corporations in favor of expeditious and efficient business operation and financial arrangements based on the separation between management and ownership to provide employment opportunities and revitalize farming villages, noting that business corporations as a form of Agricultural Production Corporations, if they develop workable means to address these concerns, can be considered to become a management type of land-extensive farming (Honma 2006; Kishi 2009).

reform for deregulation (Ohshima 2003).[169] The amendment mainly aimed to change the system of Agricultural Production Corporations, while further relaxing tenancy controls (e.g., removal of fixed monetary rent scheme) (Ohshima 2003; Honma 2010; Sekiya 2002). In accordance with the promotion of incorporation of farm management, the system extended the definition of Agricultural Production Corporations to encompass business enterprises run outside the conventional farming sector, and acknowledged business corporations as a form of agricultural production corporations (Sekiya 2002).[170] Thus, business corporations became eligible for farmland acquisition and farm management as long as they took a form of Agricultural Production Corporations based on the 'cultivator-oriented principle' as local collective of farmers (Sekiya 2002; Honma 2006; Kurumisawa 2016).[171] Moreover, the Diet proceedings on this amendment added the agenda for future deliberations to secure various types of management entities and promote incorporation of farm management in consideration of the progress of implementation for the next five years in light of an increase in domestic agricultural production (Sekiya 2002).

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[169] Originating from the policy-making processes for the New Policy (1992), the discussion about farmland acquisition by business corporations was followed by the review of the agricultural policy from the farming sector. This review process was reinforced with the government-wide administrative reform for deregulation that started in 1995 in response to the requests from the financial community (Ohshima 2003).

[170] The system of Agricultural Production Corporations was introduced with the ALA amendment in 1962 to allow for farmland acquisition by corporations (i.e., legal persons) which was not defined in the original ALA (Honma 2006). The system narrowly applied to a nominal group of natural persons given the owner-farmer principles, but became modified with the ALA amendments in 1970, 1980 and 1993 along with the change from the owner-farmer principle to the tenancy promotion to relax the prerequisites for Agricultural Production Corporations.

[171] The amendment to the ALA in 2000 additionally accredited business corporations as Agricultural Production Corporations if they meet the following conditions: 1) more than a half of the executive officers regularly engage in farm management and engage in farming practices for more than 60 days in a year; and 2) their 'articles of incorporation' include the need for an approval by the board of directors for share transfer (Kenji Ishihara 2009). In accordance with the New Basic Act that alluded to the potentials of business corporations only in a form of Agricultural Production Corporations as a locally-based collective of farmers, the new system with the 2000 amendment imposed several requirements on Agricultural Production Corporations based on the 'cultivator-oriented principle' (e.g., farming as a main business enterprise) despite the relaxation (Honma 2006).

Amendments to the PIAMF Act (2003, 2005)

The PIAMF Act (1993) was amended in 2003 and then in 2005 to expedite farmland aggregation and reinforce the measures against farmland abandonment (Nagasawa 2012). These amendments followed progress in the policy discussions on the administrative reform for deregulation, the rice policy reform, and the farmland abandonment. First, right after the enforcement of the amended ALA in 2001, the Council for Regulatory Reform (i.e., an advisory working group to the Prime Minister) proposed to further deregulate the existing systems (e.g., the control of capital injection to Agricultural Production Corporations), which was followed by a plan in 2002 to reexamine the ALA to allow for strategic farm management by business corporations (Ohshima 2003). Second, the MAFF's Outline Plan of 'Rice Policy Reform' (2002) positioned a village-based farming organization (*shuraku-eino soshiki*) as an entity to make rice farming adaptable to the market and consumer demands, and directed political attention to the future incorporation as a legal person and centralized accounting for efficient and stable farm management (Nagasawa 2012; Ono 2010).[172] Third, the area of abandoned farmland rapidly increased in the 1990s after the slowdown in the early 1990s, though the first specific measures against farmland abandonment appeared in the amendment to the ALUP Act in 1989.[173]

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[172] The MAFF decided the Outline Plan of 'Rice Policy Reform'(*Kome seisaku kaikaku taiko*) in December 2002 as a result of the overall review of the production adjustment policy (Nagasawa 2012; Kobari 2018). This review was undertaken by the working group that was launched in January 2002 in response response to the rice price depreciation as well as the slumping progress in the production adjustment policy in the early 2000. At the same time, the MAFF decided the plan for the amendment to the Food Control Law which was enforced in 1995 to liberalize the production and sale of agricultural products (mainly rice) by abolishing the Staple Food Control Law (1942) by which the government intervened in the production, distribution and consumption of agricultural products for the stability of supply and demand as well as prices.

[173] In response to the rapid growth of abandoned farmland (from 135,000ha in 1985 to 217,000ha in 1985), the amendment to the ALUP Act in 1989 introduced measures against farmland abandonment, including the administrative advices and recommendations to the owners and the farmland transactions through ALHR organizations (Ogata 2013). These measures were taken over and strengthened by the PIAMF Act in 1993, although no penalty was imposed on the owners of abandoned farmland. Although the rate of increase in abandoned farmland was slowed down in the early 1990 (an increase by 27,000ha from 1990 to 1995), it became much faster again (an increase by 43,000ha from 2000 to 2005) as the media reported that the abandoned farmland amounted to the area of Saitama Prefecture based on the census data of 2005 (386,000 ha accounting for 9.7% of the total farmland area) (Harada 2018a).

Introduced through the amendments was the System of Special Agricultural Zones. This started in 2003 as a measure to tackle farmland abandonment by allowing business corporations to enter into farm management through tenancy in areas where farmland abandonment was significant (Harada 2017b; Harada 2018a). The Special Zones (*tokku*) system in general was introduced in 2002 as part of the structural reform led by the Prime Minister Koizumi (2001-2006) to demonstrate a model of structural reform for regional economy vitalization, leading to the System of Special Agricultural Zones beyond the control of the ALA (Toshiharu Watanabe 2007; Harada 2017b). This was followed by the 2003 amendment to the PIAMF Act, which expanded the allowable share of the capital injection from business corporations to Agricultural Production Corporations as certified farmers (Toshiharu Watanabe 2007).[174] The Special Agricultural Zone was designated as a zone where local farmers could not resolve the extensive farmland abandonment but the municipal governments or ALHR organizations could sublet farmland business corporations to resolve it (Harada 2017b). The system became applicable nationwide as part of the Special Corporation Loan Program, which was introduced by the 2005 amendment to the PIAMF Act (Harada 2017b; Harada 2018a; Toshiharu Watanabe 2007; Hori 2012; Ogata 2013).[175] In addition, the 2003 amendment bolstered specific measures against farmland abandonment by imposing additional requirements on owners (e.g., planning and reporting obligation for the owners of abandoned farmland) (Ogata 2013; Nagasawa 2012).

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[174] The allowable share of the capital injection increased from not more than one quarter to not more than a half.

[175] The 2005 amendment put in place the Special Corporation Loan Program as a measure against farmland abandonment by limiting the program applicable to the districts with considerable area of abandoned farmland, where the special corporations were allowed to manage farm on farmland sublet by municipal governments or ALHR corporations (Harada 2018a; Ogata 2013). Harada (2018a) argues that this program was a breakthrough to the liberalization of corporate entry into agriculture despite its slogan as a measure against farmland abandonment, given that all the conditions limiting its applicability to the districts with abandoned farmland finally came to be removed through the 2009 amendment of the ALA.

The 2005 amendment integrated all the relevant measures with further enhancement (e.g., forcible administrative arrangements for tenancy), allowing for active public intervention in private ownership (Ogata 2013).

Another major program was the System of Special Agricultural Organizations (*Tokutei nogyo dantai*), which was introduced through the 2003 PIAMF Act amendment in response to the Outline Plan of Rice Policy Reform (2002) to promote village-based farming organizations (Ono 2010). This system offered an organizational form of 'special agricultural organizations' as a stepping stone for village-based farming organizations to develop into 'special agricultural corporations' as certified farmers, by requiring them to set forth a goal of incorporation in their planning (Ono 2010). Village-based farming organizations were further promoted by the program of Rice Policy Reform which started in 2004 to orient rice farming more responsive to market demand. The program officially positioned village-based farming organizations in parallel with certified farmers to be supported if they met certain conditions (Ono 2010). The conditions included income level and farm scale (larger than 20ha) in addition to the centralized accounting and the future incorporation in their planning (Ono 2010). Moreover, the Basic Plan for Food, Agriculture and Rural Areas (New Basic Plan), which was decided in 2005 to materialize the New Basic Act (1999), specifically set forth village-based farming organizations as a target of policy implementation (Honma 2010).[176] The Plan introduced the non-product-specific policy in accordance with WTO agreements to change the previous price policy to the

[176] Given some ambiguity of the Basic Plan for Food, Agriculture and Rural Areas (New Basic Plan), which was first decided by the cabinet in March 2000, the MAFF started in 2003 to reexamine the Plan (Honma 2010). While the original plan seemed to focus on individual farm management entities, the revised plan of 2005 placed emphasis on both individual entities and village-based collective ones. This change was made given the fact that business farm households (*shugyo-noka*) were absent in a half of rice farming villages nationwide. Policy-makers took this fact seriously, while the Japan Agricultural Cooperatives (JA) argued for village-based farming in the interest of small farmers (Honma 2010). A business farm household (*shugyo-noka*) is defined by the MAFF as a farm household in which agricultural income accounts for more than 50% of household income with farmers below the age 65 engaging in farming for more than 60 days annually.

income policy with a focus on the capacity of farm managers rather than specific products applicable to all farmers (Honma 2010; T. Yoshida 2016). To implement this policy, the non-product-specific management stabilization program started in 2007, for which village-based farming organizations as well as certified farmers were eligible as a recipient of income subsidies (Honma 2010). Thus, as long as they exhibited the transition status of development, village-based farming organizations became politically and financially supported, regardless of their present status without legal personality or qualification of certified farmers (Ono 2010).

2) Social Institutions

During the period between the mid 1980s and the early 2000s, the farming population shrank and aged in terms of individuals, households and communities. The sharp decrease started in the mid 1980s after the slow decrease under the low economic growth, resulting in a reduced and minor share of the agricultural workforce in the nation's economy (see Table 2.2).[177] This acute decline involved a remarkable reduction in farm households. It also accompanied the noticeable loss of farming villages since the 1990s, while the share of the non-farm households in villages increased on average.[178] Furthermore, the pace of aging has remarkably grown since the 1980s, wherein the agrarian aging extended nationwide due to the aging of the core cohort, differently from the localized aging that was previously observed in the absence of successors for the earlier postwar periods (Ouchi 2005).[179]The loss of population, households and communities engaging

[177] The share of agricultural workforce reduced to 4.5% in 2000, compared to 8.3% in 1985 (Tabata 2005).

[178] The share of non-farm households increased from 77% in 1980 to 89% in 2000 (Tabata 2005).

[179] The population aging rate increased by 11.5 points for 15 years between 1985 and 2000, while it increased by 9.1 points for 25 years between 1960 and 1985 (i.e., from 8.2% in 1960 to 17.3% in 1985) (Ouchi 2005).

in farmland management resulted in the rise of farmland abandonment. Yet, new farmers entered into the farming sector as this population increased 6.7 times for a decade between 1990 and 2000, though this is still minor (Egawa 2005). At the same time, the agrarian population involved young farmers employing new management methods as well as female farmers processing and selling products in addition to farming (Akitsu 2005).

These demographic drifts were driven not merely by the economic motivation, but increasingly by agricultural multifunctionality. The domestic agricultural production was on a downward trend with the price depreciation of agricultural products under growing international competition (Tabata 2005). Consequently, the agricultural workforce, particularly young workforce, significantly decreased from the mid-1980s.[180] Yet, to survive in the competitive market, the remaining young farmers increasingly expanded their networks beyond their residing villages where fewer full-time farmers remained, and started to communicate and collaborate with each other to strive for farm profits (Akitsu 2005). Also, the movement of female farmers dominated by the cohort of females in their 50s (who became less occupied with child-rearing) started in the mid-1980s in various parts of the country to engage in processing and sale of agricultural products (Akitsu 2005). This trend accorded with the agricultural market that no longer allowed farm production to automatically lead to sale and thus encouraged farmers to depart from conventional ways of farming (Akitsu 2005).

Moreover the perspectives on farming life and occupation changed with the degradation of urban environment and cases of food contamination, resulting in the societal revaluation of agriculture and rural areas. Since the rapid economic growth, the prevalence of food pollution

[180] The population of young agricultural workforce decrease to one quarter for the 15 years between 1985 and 2000 (Akitsu 2005).

(e.g., harmful food, contamination with residual agrichemicals) raised consumer awareness of qualities of agricultural products, while the food provision system developed in the form of mass production and distribution (Shinabe 2005). Also, having experienced the loss of urban green resulting from urban sprawl and development as well as the degradation of amenities even after resolving the environmental pollution, urban residents became concerned about the progress of rural ecological devastation (Shinabe 2005). Against the economic-oriented idea, the phenomena of urban-rural interactions emerged in the 1980s to renew the linkages between urban and rural areas in consideration of various aspects of farming (e.g., food security and diversity, wild fauna and flora, aesthetic landscapes, cultural heritage, traditional arts) (Shinabe 2005). Furthermore, the gloomy employment scene after the burst of the bubble economy elicited the interests of job seekers to choose farming as an occupation, whereas the political support for new farmers progressed at the national and local levels in the 1990s (Egawa 2005).

Farming village communities:

With the quantitative decrease of farming villages, they experienced further diversification together with personalization in both structural and functional terms (Egawa 2005). Structurally two extreme types emerged along with the loss of farming villages particularly in urban as well as hilly and mountainous areas in the 1990s.[181] On the one hand, gigantic farming villages appeared mainly in urban areas with the inflow of non-farm families who acquired houses in urban fringes where the cost of land was lower in the post-bubble land market in the late 1980s

[181] The data from Census of Agricultural Villages of 2000 shows that the decrease in agricultural villages over a decade between 1990-2000 (4,959 villages with the rate of 3.5%) was much larger than that for a decade between 1980-1990 (2,255 villages with the rate of 1.6%) (Tabata 2005). In terms of regional differences, the decrease rates between 1990-2000 in urban (6.7%), mountainous (4.7%) and hilly (3.1%) agricultural regions were much higher than in flat agricultural region (0.8%).

(Tabata 2005). These villages were dominated by the swelling non-farm households. This gave rise to an increase of residential groups located within a farming village but organized separately from the conventional farming villages to pursue social and administrative activities.[182] On the other, smaller villages increased in hilly and mountainous areas due to the loss and outflow of farm and non-farm households, as the population decline shifted from the social to natural decrease in the 1990s (Tabata 2005). The trend endangered the existence of the small and aged local communities (i.e., marginal villages called '*genkai shuraku*') in the hilly and mountainous areas.[183] Besides these two extremes, most farming villages experienced the expansion of the shares of non-farm households holding farmland and part-time farm households (Tabata 2005). The number of non-farm households holding farmland continuously increased between 1985 and 2000, resulting in the considerable share in a village.[184] Also, the shares of the second-rank classification and the elderly full-time farm households further increased, while those of full-time and first-rank classification farm-household radically decreased (Tabata 2005).

Despite these structural changes, the self-governance functions of farming villages did not totally disappear. While some functions became externalized, most farming-related functions remained in a group of farm households but often separately from the non-farm, residential functions (Tabata 2005). In many gigantic villages with the predominant non-farm population, a

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[182] The number of agricultural villages within which districts consisting of exclusively non-farm households were located increased from 10,545 in 1980 to 15,432 in 2000, while the number of non-farm households residing such districts increased 1.75 times over two decades between 1980 and 2000 (from 3.68 million to 6.44 million households) (Tabata 2005).

[183] Akira Ohno (1991) proposed the notion of '*genkai shuraku*' (marginal villages) in danger of disappearing with more than half of the population over the age of 65 (Tabata 2005). Three quarters of the smallest villages (i.e., those holding less than 9 households in total) were located in the hilly and mountainous regions as of 2000 (Tabata 2005).

[184] The number of non-farm households holding farmland (*tochimochi hi-noka*), defined as non-farm households owning more than 0.05ha area of farmland in total including both cultivated and abandoned farmland, started to be captured from the 1985 Census of Agriculture. The number of such households increased from 371,000 in1985 to 690,000 in 1990, 799,000 in1995 and 904,000 in 2000, resulting in the 22.5% share of the total of farm households and non-farm households holding farmland as of 2000 (Tabata 2005).

fraction of farm households continuously maintained agrarian collective actions including farmland management (Tabata 2005). In other villages with a lower share of farm households, farm households organized themselves to handle the farming-related issues often as a terminal organization of the Japan Agricultural Cooperatives (JA) system, whereas the entire village dealt with common, residential issues (Tabata 2005).

The increased share of part-time and non-farm households with farmland sometimes weakened the collective power to engage in agricultural issues given their limited commitment (Tabata 2005). Yet, the collective management of agricultural infrastructure mostly remained as before, while farm households often served central roles in facilitating local activities, even non-agricultural ones (Tabata 2005). The government continued to leverage the self-governing capacity of farming villages in policy implementation. Besides the continued production adjustment through village-based quota allocations, the government further promoted new community-based programs to address agricultural decline and farmland abandonment (Tabata 2005). Village-based farming (*shuraku eino*) became politically promoted in the 1990s building on the practices in the 1980s in some areas where part-time farming largely progressed (Ono 2010; Tabata 2005). The Measure of Direct Payment in Hilly and Mountainous Areas, which was introduced in 2000, conditioned a village as a recipient of direct payment to make an agreement on collective actions for farmland management (Tabata 2005).

The occupational diversification among farm families and their members brought in new networks where individuals related to each other beyond farming villages. The phenomena resulted from the pursuit of personal choice and decision rather than collective ones. The new networks were of three types: 1) networks of young farmers; 2) networks of female farmers; and

3) urban-rural interlinkages. First, young farmers started to organize themselves since the mid-1980s on a scale broader than a village (e.g., municipal and prefectural scales) to pursue mutual interests in farm management and businesses, taking advantage of learning opportunities (e.g., events organized by agricultural cooperatives or local governments) (Akitsu 2005). Second, groups of a dozen female farmers in their 50s started to develop their businesses of processing and sale of agricultural products, building on female groups of agricultural cooperatives or life improvement groups (Akitsu 2005). Third, urban-rural interlinkages involved the migration of new farmers and the inflow of visitors for learning and experiences in farming villages. The former came to comprise diverse types of migrating farmers in the 1990s in terms of intentions (e.g., farming, lifestyle), ages (e.g., the youth, the elderly) and employment (e.g., self-employment or corporate employee), following those in the 1980s mostly who aspired after ecological lifestyle in farming villages (Egawa 2005). The latter became noticeable in the 1980s and prevailed in the 1990s nationwide, particularly in the hilly and mountainous areas, wherein a variety of actors at multiple levels collaborated to promote urban-rural interactions on various aspects of farming, products and farming villages (Shinabe 2005).

Farming families:

Farming families also went through diversification and personalization from the 1980s (Ouchi 2005). The Census of Agriculture and Forestry in 2000 shows that the share of the previously dominant multigenerational families was reduced to less than 40%, resulting from the low birthrate and longevity together with the outmigration of heirs (Tabata 2005). This was associated with the increase in single-person, one-generation and nuclear-family households

(Kawate and Nishiyama 2005). Yet, the rate of multigenerational families were higher in full-time farm households, suggesting that the prototypical farm families of multigenerational stem families remained in the rural areas where the core cohort was aging but still active in farming in the 1990s (Tabata 2005). Nevertheless, despite the lifetime engagement of the elderly in farming and social activities, this demographic trend implies that many families without a potential capacity for reproduction would become elderly one-generation families in a few decades (Kurita 2005).

The trinity of farm families largely metamorphosed, releasing the element of 'family business' (*kagyo*) of farming. Yet, the families preferentially maintained their 'life-security function' where the constituents personally and discretionally chose their occupations rather than being involved in their family business (Egawa 2005). The lifestyles of family members became diversified in accordance with gender and ages of individuals, as each member opted for their jobs independently from the conventional norms of family succession (Egawa 2005). Thus, farming families became diversified and personalized in their working and living. However, they did not crumble as a considerable number of multigenerational families still remained in rural areas. Rather, they were sustained by allowing for the affective bond of one-generations and the individual freedom of choice (Kawate and Nishiyama 2005).

One example of the strategies to adapt to members' needs and interests as well as the socio-economic changes was the Family Management Agreement (*Kazoku keiei kyotei*) as a result of which family members discussed and decided on farm management and life (e.g., division of labor, compensation, holidays) (Kawate and Nishiyama 2005). The Agreement became politically promoted since the early 1990s to support female farmers mostly without an

entitlement to farmland and then young farmers lacking experiences and training for farm management (Kawate and Nishiyama 2005). This built on the Family Agreement that was politically bolstered in the 1960s to encourage heirs for farming, but originated from the spontaneous initiatives of young farmers (Kawate and Nishiyama 2005). Referring to the lives of the peers of the same generation who increasingly became corporate employees in the postwar years, young farmers, who remained as heirs in faming families but aspired to working and living styles on a couple basis, took the lead to develop a family agreement so as to accommodate their couple-based lifestyle in the multigenerational families (Kawate and Nishiyama 2005). The nationwide movement of the Family Agreement declined in the 1970s, while some initiatives evolved where female farmers sought for the improvement of their working and living conditions (e.g., compensation for housework and child-rearing, maternal leaves) (Kawate and Nishiyama 2005). Reflecting the socio-economic status of the days, the earlier model (i.e., Family Agreement) was limited to parent-progeny relationships to accommodate a one-generation or nuclear family within an entire family and focused on the issues related to farm management and inheritance. But the later (i.e., Family Management Agreement) involved marital relationships to accommodate individuals in a family and extended to broader issues related to work and life (Kawate and Nishiyama 2005).

In spite of the growing interest in individual freedom and capacity, family members continuously supported each other. The result from the nationwide survey of nursing-care insurance in 2002 shows that the subscription rate was lower in the hilly and mountainous areas where the share of multigenerational families remained higher (Kurita 2005). The relevant case study suggests that this was because of the availability of family caregivers (Kurita 2005). At the

same time, a study of the income of the elderly subscribers of nursing-care insurance (fiscal 2000-2002) indicated that those with higher income were much fewer in the rural area than in the urban one, and that the income level was lower in mountainous regions than flat and hilly regions within the rural area. This implies that many elderly farmers in hilly and mountainous regions were low-income without subscription of nursing-care insurance while relying on family caregiving (Kurita 2005). In this regard, the existing social security system may have potential mismatches between the needs and capacities of aging farming families. The social security system shifted from universal care to caregiving based on the freedom of choice and the benefit principle since the late 1980s in accordance with the political interest of the market-based modern civil society (Kurita 2005). This shift was based on the aging of urban society where nuclear families encountered the low birthrate and longevity (Kurita 2005). But the aging of rural society progressed earlier and differently with the outmigration of heirs and the reflux of retirees in association with the income level.

2.3 Conclusion

The postwar tenancy model transformed from the centralized state control of one-parcel-based farmland transactions (the first model) to the multi-level coordination to guide collective tenancy arrangements for better economy of scale (the third model), which was built on the decentralized planning scheme of ‘use-rights’ setting (the second model). This transformation followed the goal changes of agricultural policy from the democratic reform of the nation-state (the first model) to the improvement of the farming industry (the second model) and additionally the attainment of agricultural multifunctionality (the third model). The underlying assumptions of

these goals hinged on the notions of farmland first as a (private) property of a farm family, then a commons of a farming village, and finally a commons of a broader society. These conceptual changes moved through the continuum of private and public interests as well as roles and responsibilities of the actors in private and public sectors. The guiding principle of the models altered from the 'owner-farmer principle' with a focus on the ownership right to a private property to protect private interests of owner-farmers, to the 'cultivator principle' with an emphasis on the use right to a commons to assure public interests of a society, allowing for increasing public intervention in tenancy arrangements. In the third model, the roles and responsibilities of corporations were under negotiation between various actors in the private and public sectors to discern to what extent they could stretch the 'cultivator principle.'

The transformation of the tenancy model interacted with the changes in social institutions involving the two historically developed institutions: farming villages (*mura*) and families (*ie*). Preceded by demographic movements and aging, these institutions changed. Farming villages experienced stratifications largely between fewer farm families and more non-farm ones, whereas new farmers and new networks of farmers brought in over the recent decades. Farming families sustained the multigenerational structure, but became subdivided across generations and individuals with diversified working and living styles. However, farming villages maintained collective activities to manage agricultural infrastructure including farmland and to implement administrative work and projects, if needed, by reorganizing themselves to separate between residential and farming functions in a village. Farming families metamorphosed the trinity by releasing the 'family business' component, but sustained the life-security function to extend the

household economy while increasingly allowing for the pursuit of freedom of choice and autonomous decision-making.

If we only look at the political institutions, merely external forces and formal governmental actors seem to have driven the changes in tenancy model. However, the focus on both political and social institutions reveals the powerful driving force of farmers, who individually and/or collectively acted on their perspectives through the structures of families and villages. Importantly, experiencing and feeling the mismatches between their own needs/interests and available choices/options, they not only reacted to changes, but actively adapted mostly through the structural changes of *ie* and *mura* consciously or unconsciously, so as to sustain the key functions, most importantly life-security.

So far, active farmers seemed to subjectivize themselves as constituents of farming families and villages, and thus acted to productively manage farmland. Such subjectivities vigorously contributed to the maintenance or change in the social institutions by motivating farmers, often with the involvement of ambivalent feelings to remain or leave their farming families and villages. However, the political definition of farmers has been largely changing, and the FB program as the latest model was designed to actively bring in new farmers in the farming sector. The next chapter examines why and how the latest mode has been introduced and designed.

Chapter 3: Emergence and Working of the Farmland Bank Program

This chapter addresses how the Farmland Bank (FB) program has emerged and how it works in governing farmland. First, it illustrates the processes by which the FB program has evolved as a cornerstone of the latest tenancy model. This model builds on the third postwar model, but underwent heated political negotiations involving administrative regime changes. The chapter also expounds on the mechanism by which FBs have executed the FB program with the legal and programatic bases. Second, the chapter explicates how the FBs have collaborated with other agencies across different jurisdictional levels. Based on the results from the semi-structured interviews with officers from key relevant agencies in Ishikawa Prefecture, I describe horizontal and vertical relationships of the stakeholders from local to national levels. Furthermore, with a focus on two municipalities, I provide the contexts of the two case studies.

3.1 Emergence of the FB Program

The FB program was introduced in 2014 as 'an ace of the agrarian structural reform' to accelerate farmland aggregation (Ando 2015, 92). Since the late 2000s, the political initiative has led to the second postwar agrarian reform, called '*Heisei* Land Reform,' from which the fourth model of farmland governance evolved.[185] Against the backdrop of further demographic and economic decline in the agrarian sector, the Agricultural Land Act (ALA), which built on the first postwar agrarian reform, was radically amended in 2009. Furthermore, the years after 2007 experienced political fluctuation associated with regime changes. Despite political instability, the agricultural policy-making process has been increasingly under the strong influence of the Office

[185] *Heisei* is the Japanese traditional era name for the years between 1989 and 2019.

of Prime Minister (OPM) which has ties with the business community. This OPM-led policy making processes, involving the negotiations between the agrarian and other sectors, resulted in the FB program.

The FB program was a keystone of the latest tenancy model that renewed all four aspects of the third model (see Table 3.1). First, the latest model followed the two-wheel policy combining industrial and rural development policies based on the New Policy (1992), but placed further emphasis on economic competitiveness. Second, it relaxed the 'cultivator-oriented principle' (*kosakusha-shugi*), which persisted in the third model adhering to the integrity of production and residence, and became inclusive of new farmers. Third, it changed the notion of farmland from 'local resources' to 'an object of public management.' Based on the 'cultivator-oriented principle,' the third model dealt with farmland as a commons to benefit the broader society by taking advantage of farmland as both 'production base' and 'local resources.' The fourth model handled farmland as a commons, but to extract farmland as 'production base,' not as local resources, through stronger public management. Fourth, it changed the governance approach from the multi-level 'inducement' to the multi-level 'guidance and supervision.' With the notion of 'local resources,' the third model authorized prefectural and municipal governments to coordinate with farming villages for collective tenancy arrangements. As the object of public management, however, the fourth model gave more power to prefectural authorities to be guided and supervised by the national government.

Table 3.1 Distinctions between the Third and Forth Models

	Third Model (1985-2004)	**4th Period (2005-2016)**
1) The goals of agricultural policy	Improve the agricultural productivity and fulfill agricultural multifunctionalitiy (i.e., two-wheel policy, including industrial and rural development policies)	Improve the agricultural productivity and fulfill agricultural multifunctionalitiy: further skewed to industrial plolicy
2) The principle of farmland management	'Cultivator-oriented principle' (*kosakusa-shugi*) : fostering 'certified farmers' and village-based farming organizations as efficient and stable farm management entities	Diluted 'cultivator-oriented principle' (*kosakusa-shugi*): allowing for entries of 'new farmers' (e.g., general corporations)
3) The concept of farmland	A commons of a broader society — as both the 'production base' and the 'local resources'	A commons of a broader society — as 'an object of public management' to exploit the 'production base'
4) The approach to farmland governance	Multi-level 'inducement' for 'collective' tenancy arrangements: the prefectural and municipal governments as planning and implementation agencies to coordinate with farming villages	Multi-level 'guidance and supervision' for 'competitive' tenancy arrangements: the national and prefectural governments as the authorities to promote and evaluate tenancy for free and fare competition

To elaborate the emergence of the FB program, the remainder of this section describes both socio-economic and political processes. It first illustrates the changes in agricultural land and population which indirectly drove the second agrarian reform. Then, it describes the political processes directly leading to the emergence of the FB program. In particular, it focuses on the development of key policy tools of farmland governance, including the ALA amendment in 2009, the introduction of the Community Agricultural Mater Plan (CAMP) program in 2012, and the establishment of the Farmland Bank (FB) Act in 2013. Finally, it details the mechanism of the FB program that is based on the FB Act but also related to other policy tools including the ALA and the CAMP program.

3.1.1 Agricultural land and population

Farmland use has noticeably declined over the past few decades, resulting in stagnant self-sufficiency. Despite trade measures on certain agricultural goods (e.g., the tariff of rice), the total self-sufficiency ratio in caloric terms fell by half from 79% in 1960 to 40% in 2000, and is yet to recover (OECD 2013; MAFF 2018i).[186] The 2000 New Basic Plan first set the numerical target as a national goal to raise self-sufficiency from 40% to 45% by 2010 (Michiko Morita 2006; Honma 2010). Given the failure to attain the goal, the New Basic Plan, which is adjusted every five years, has kept extending the target year of achievement (MAFF 2018i; Honma 2010).[187]

Moreover, cultivated farmland decreased by one quarter from its peak in 1961 to 2007 as a result of the reduction in farmland development and the loss of cultivated land.[188] While little farmland was developed over the past two decades, a considerable amount of cultivated land decreased mostly due to farmland conversion and abandonment.[189] In particular, farmland abandonment outperformed farmland conversion around 1995 (MAFF 2004). Abandoned farmland sharply increased in the 1990s, and ballooned to 386,000 ha in 2005 that exceeded the

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[186] Food self-sufficiency (i.e., Production x 100 / (Production + Imports - Exports ± Changes in domestic stock levels)) is concerned with the supply side of food security with a focus on the domestic capacity to produce food in sufficient quantities (Clapp 2015). Thus, food self-sufficiency is not exactly an expression of food security, which does not consider the origin of food or a country's capacity to produce it.

[187] With no improvement of self-sufficiency, the 2005 New Basic Plan set the target ratio to 45% by 2015 with a five-year extension, while reducing the desirable per-capita total caloric intake in consideration of the change in dietary habitat (Honma 2010). Under the administrative change to the Democratic Party of Japan (DPJ), the 2010 New Basic Plan raised the target from 45% to 50% to be achieved by 2020 (Ueda 2018). Given that self-sufficiency remained 39% in fiscal 2013 and 2014, the 2015 New Basic Plan aimed at 45% by 2025 (MAFF 2018i). Since the self-sufficiency measure disregards the potential capacity of farmland that is used for non-food agricultural production (e.g., flowers), the 2015 New Basic Plan introduced the new concept of 'food self-sufficiency capacity' as an expression of the calorific value available with the maximum use of food production capacity of the country (MAFF 2016a).

[188] The total area of cultivated land (*kochi-menseki*) fell from the peak of 6.09 million ha in 1961 to 4.65 million ha in 2007 and then continued to decrease to 4.44 million ha in 2017 (MAFF 2018a).

[189] On the one hand, farmland development, which had been active until the mid-1970s, greatly declined from the peak of 56,000 ha in 1971 to 2,000ha in 2007 and remained small as of 2017 (i.e., 6,060 ha) despite the recent land development in the post-disaster sites. On the other, the loss of cultivated land decreased from its peak of 113,000 ha in 1971 to 24,000 ha in 2009 and remained considerable as of 2017 (i.e., 32,500 ha) (MAFF 2018a).

area of either Saitama or Shiga prefectures (i.e., about 377,000 ha for each) (Higuchi 2009).[190] Albeit with a slower pace, the volume of abandoned farmland continued to increase, resulting in 423,000 ha of the abandoned farmland (i.e., the abandoned ratio was 10.9%) in 2015 (see Table 3.2).[191]

[190] Abandoned farmland (*kosaku-hoki-chi*) is defined in the Census of Agriculture and Forestry to refer to the cultivated land where its owner(s) did not grow crops for more than a year and plan not to crop in the next few years (Higuchi 2009, 1).

[191] The farmland abandonment ratio (*kosaku-hokichi-rtistu*) is the proportion of the area of abandoned farmland to the total area including the abandoned farmland and the operating cultivated land. The operating cultivated land (*keiei-kochi menseki*) means the cultivated land managed by agricultural and forestry management entities (Higuchi 2009, 1).

Table 3.2 Changes in Agricultural Land and Population

		1995	2000	2005	2010	2015
Farmland abandonment[1)]	Abandoned farmland [1,000ha] (Growth rate %)	244	343 (+40.6)	386 (+12.5)	396 (+2.6)	423 (+6.8)
	Farmland abandonment ratio [%]	5.6	8.1	9.7	10.6	10.9
Farmland used by farm management entities [2)]	Operating cultivated land [1,000ha] (Growth rate %)	4,154	3,938 (-5.2)	3,693 (-6.3)	3,632 (-1.7)	3,451 (-5.0)
	Area of farmland over 5 ha of management scale	1,325	1,400 (+5.6)	1,601 (+14.3)	1,867 (+16.6)	1,998 (+7.0)
	Area of farmland under tenancy contracts	569	703 (+23.5)	824 (+17.3)	1,063 (+29.0)	1,164 (+9.5)
Ages of the cohort born in the late 1920s and the early 1930s [3)]		60-69	65-74	70-79	75-84	85-94
Farm work force: Commercial farm households [3)]	Population engaged in farming [1,000 persons] (Growth rate %)	4,140	3,891 (-6.0)	3,353 (-13.8)	2,606 (-22.3)	2,097 (-19.5)
	Population born in the late 1920s and the early 1930s (Share %)	1,455 (35.1)	1,399 (36.0)	1,106 (33.0)	696 (26.7)	189 (9.0)
	Population born in the late 1930s and the early 1940s (Share %)	695 (16.8)	769 (19.8)	883 (26.3)	796 (30.5)	326 (15.5)
	Core persons mainly engaged in farming (Growth rate %)	2,560	2,400 (-6.3)	2,241 (-6.6)	2,051 (-8.4)	1,754 (-14.5)
Management entities [2)]	Total [1,000 entities] (Growth rate %)	-	-	2,009	1,679 (-16.4)	1,377 (-18.0)
	Organizational entities	-	-	28	31 (+10.4)	33 (+6.4)
	Incorporated entities	-	-	14	17 (+23.1)	23 (+33.4)
Village-based farming [4)]	Number of organizations (Growth rate %)	-	-	10,063	13,577 (+34.9)	14,852 (+9.4)
	Rate of farmland aggregation [%]	-	-	7.5	10.8	11.0
Farm household owning farmland [2)]	Total [1,000 households] (Growth rate %)	4,350	4,218 (-3.0)	4,050 (-4.0)	3,902 (-3.6)	3,569 (-8.5)
	Commercial farm households	2,651	2,337 (-11.9)	1,963 (-16.0)	1,631 (-16.9)	1,330 (-18.5)
	Commercial farm households with heirs living together	-	1,340	868 (-35.2)	675 (-22.2)	397 (-41.2)
	Subsistence farm households	792	783 (-1.1)	885 (+12.9)	897 (+1.4)	825 (-7.9)
	Non-farm households owning farmlan	906	1,097 (+21.1)	1,201 (+9.5)	1,374 (+14.4)	1,414 (+2.9)

Notes: 1) Source is MAFF, Agriculture and Forestry Census; 2) MAFF, Agriculture and Forestry Census — For the 'operating cultivated land' and the 'area of farmland under tenancy contracts' in 1995 and 2000, the data combines the values of commercial farm households and farm management entities other than farm households (Hashizume 2016); 3) MAFF, Agriculture and Forestry Census — The data of commercial farm households is used. The cohort born in the late 1920s and the early 1930s corresponds with the population born for the period between February 1st 1926 and January 31st 1935, while that born in the late 1930s and the early 1940s corresponds with the population born for the period between February 1st 1935 and January 31st 1945. (N. Taniguchi 2013); 4) MAFF, Fact-Finding Survey on Village-Based Farming — The rate of farmland aggregation by village-based farming organizations is referred to Hashizume (2018).

The causes of farmland abandonment vary over time and place, but it has been largely affected by the demographic trends in recent decades (K. Ishida 2011; Tanimoto 2015).[192] The survey on the causes of farmland abandonment conducted nationwide in February 2004 listed the shortage of farm labor force as the largest factor (45%), followed by the low productivity (12.8%), the absence of available tenants (11.4%), and the unfavorable land conditions (9.8%).[193] In particular, the core cohort (born in the late 1920s and the early 1930s), who had long constituted the major agrarian labor force, was becoming over the age of 70 in 2005. Due to the increased longevity and the advancement of small-sized farming machines, this cohort remained active in farming in their late 60s or over, resulting in the retaining of small-scale farmers until the beginning of the 21st century (N. Taniguchi 2013; Hashizume 2005).[194] Nevertheless, after becoming over 75 in 2010, the share of this cohort started to decrease (see Table 3.2). This has not only accelerated the decline of farm labor force but also changed in the household composition of farm families largely from multi-generation to single-generation (N. Taniguchi 2013; Mamoru Sawada 2013).[195]

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[192] Farmland abandonment was also observed in the early years of the postwar era. It first emerged in the reclaimed land with the unfavorable conditions and the mulberry plantation under the declining silk industry (Harada 2018a). This was followed by the constant farmland abandonment in the 1970s and 1980s (see Table 3.2), which was facilitated by the rice production adjustment policy since 1969 as well as by the farmland holding by the owners who expected farmland conversion without cropping given the growing demand for land in those days (Harada 2018a; Ogata 2018).

[193] The results from this survey were taken into consideration in March 2007 at the council of advisors to the MAFF, which began in January 2007 to prepare for the agricultural land policy reform (Higuchi 2009, 2).

[194] The population of the farming core cohort increased from 1990 (1.38 million) to 1995 (1.46 million). It slightly decreased (1.40 million) and its share (36.0%) peaked in 2000 (N. Taniguchi 2013).

[195] The largest share of farm labor force shifted from the cohort born between 1926-1935 (i.e., the core cohort) (33.0%) in 2005 to that between 1935-1945 (30.5%) in 2010, while the population of the latter (0.8 million) in 2010 was about 60% of the former (1.1 million) in 2005 (N. Taniguchi 2013). Given the census data showing that many farms run by multi-generation commercial farm households consisted of the core cohort and their children in 2005, Sawada (2013) attributes the sharp decrease of two-generation family-run farms from 2005 (0.69 million) to 2010 (0.48 million) to the farm retirement of the core cohort.

To prepare for the mass retirement of the core cohort, the system of 'certified farmers' (*nintei nogyo-sha*) began in 1993 to facilitate farmland aggregation for better farm efficiency and stability. However, the population of certified farmers, particularly in the form of family-run farms, started to decrease in 2011.[196] Also, the non-product-specific management stabilization measure (*hin-moku odan-teki keiei antei taisaku*) started in 2007 to support large farms, including village-based farming organizations as an eligible recipient of income subsidies. This measure resulted in a steep rise in village-based farming organizations between 2006 and 2008.[197] This increase involved so-called '*Edaban*' (branching) management in many cases where organizations were nominally formed as a collective recipient of subsidies consisting of small family-run farms independently engaging in farm management (PRIMAFF 2013). Furthermore, farmland aggregation to village-based organizations stagnated between 2005 and 2015, while that to large management entities (larger than 5ha) has slowed down since 2010 (see Table 3.2) (Mizuki 2017; Ando 2018).[198] These trends suggest that despite the steady progress in farmland aggregation, the decline of farm labor force has outpaced the farmland aggregation, leading to incremental farmland abandonment (Ogata 2018; Hashizume 2005; Hashizume 2016).

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[196] The study on the status of certified farmers (MAFF 2012b) shows that the total population of certified farmers first decreased in 2011 by 2,894 and then in 2012 by 8,953, whereas the population of family-run certified farmers greatly decreased though that of incorporated certified farmers still increased. It also shows that the number of prefectures with the decrease in certified farmers was limited to a few in 2008 and 2009, but the number increased to 37 in 2011 and 43 in 2012. The latest data shows the fracturing trends (including the increase in 2015 and 2016) (MAFF 2018b).

[197] The survey on the status of village-based farming organizations shows that the number of village-based farming organizations increased by nearly 3,000 between 2006 and 2008: an increase by 15.4% from 2006 to 2007 and 8.0% from 2007 to 2008, compared to that by 4.2% from 2005 to 2006 and 2.9% from 2008 to 2009 (MAFF 2017a).

[198] The data from the survey on the status of village-based farming organizations shows that the area of cultivated farmland operated by village-based farming organizations increased by 45.5% from 2005 (253,672 ha) to 2010 (369,149 ha) but by 1.7% from 2010 to 2015 (375,505ha), suggesting a slowed pace of farmland aggregation to village-based farming organizations. Also, see Table 3.2.

These demographic trends have amplified a threat to further abandonment. If no reform is undertaken, farmland without registration filed by heirs would be increasingly abandoned. Without regulations of farmland inheritance in the ALA, a considerable amount of farmland has not been registered by heirs (Ogata 2018)(Ogata 2018). The national survey, conducted through agricultural committees in August 2016, found a total of 934,000 ha of farmland presumably unregistered by heirs, about 20% of the entire farmland (i.e., 4.47 million ha).[199] Most of it was still in use by de-facto heirs in a family even without registration.[200] As transactions cannot be made officially without registration, however, the more time passes, the more complicated and costly the formalities become (Ogata 2018).

In addition, besides the structural problems, other economic and environmental factors have facilitated agricultural abandonment. The survey in 2014 identified the low marketability of agricultural products (e.g., weak prices) besides the farm labor shortage.[201] Moreover, the invasion of wild animals has been a compounding factor: the damages by animal invasions often discourage farmers to continue farming whereas abandonment attracts wild animals (Marui, Shikano, and Shinogi 2013; Takeyama et al. 2006).[202]

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[199] The area of farmland presumably unregistered by heirs (934,000 ha) included 477,000 ha of farmland without registration filed by heirs, and 458,000 ha of farmland which seemed to be unregistered by heirs given the absence of registered persons (Harada 2018b).

[200] Out of the area of farmland presumably unregistered by heirs (934,000 ha), 53,683ha (5.7%) was not in use in 2016 (Ogata 2018).

[201] The national survey of municipalities on farmland abandonment, which was conducted by MAFF in February 2014, found that 39% of responses was related to farm labor force (i.e., aging and lack of workforce, an increase in non-farm households holding farmland), which were followed by 20% of responses corresponding to the marketability of agricultural products (i.e., weak prices of agricultural products, absence of profitable crops) (MAFF 2016e).

[202] The national survey of municipalities on farmland abandonment in 2014 also found that 5% of responses was related to the damages caused by wild animals (MAFF 2016e).

3.1.2 Political processes

The trends of agricultural land and population led the government to reform agricultural policy. With the understanding that the farming sector could no longer productively use farmland, the national government has taken steps in agrarian structural reform since 2007, allowing other sectors to join in policy-making. In reaction, however, the government experienced regime changes, shifting the ruling party from the Liberal Democratic Party (LDP) to the Democratic Party of Japan (DPJ) in 2009 and again back to the LDP in 2012. Regaining political power but also learning from the past failure, the LDP government introduced the FB program in 2014. The policy-making process of the FB program was largely led by the Office of Prime Minister (OPM) with the strong influence of the business community, while involving negotiations between different actors whose power have greatly changed over the past few decades. The following illustrates the regime changes in connection with the agrarian reform, and then describes the policy-making processes that led to the FB program.

Regime changes

Under the LDP regime, the Abe administration (2006-2007) introduced several new measures to reform agricultural policy. The year of 2007 was called "the turning point of the postwar agricultural policy" (*sengo nosei no daitenkan*) (MAFF 2007b, 1; Kishi 2009, 105). In this year, concrete measures were put in place corresponding to all the three pillars of the New Basic Act (1999), including stable food supply, sustainable agricultural development, and rural

development (Kishi 2009).[203] Among others, the non-product-specific management stabilization measure (hereafter called the Management Stabilization Measure) was a keystone of the reform with the change in support from market prices to income to follow the WTO guidelines (Godo and Takahashi 2012; Tomita 2013). In an attempt to bolster the structural reform, this measure took a 'selective' approach to income support through direct payments (Kishi 2009; Tsutaya 2006; Tomita 2013). It limited eligible recipients to two types of farm management entities: 1) 'certified farmers' with a size of 4 ha or more (10 ha or more in Hokkaido exceptionally); and 2) village-based farming organizations with the operating size of 20 ha or more (Tsutaya 2006; Tomita 2013; Godo and Takahashi 2012).[204]

This selective approach was one of the major drivers of regime change. Pointing to the management stabilization measure as a 'cutoff of small farmers,' the DPJ proposed the income support system for individuals (*nogyosha kobetsu shotoku hosho seido*) in its manifesto at the Upper House election in July 2007 with an emphasis on its support for all the commercial farmers regardless of the size (Y. Yamashita 2008; House of Representatives 2007; Wajima 2017). Following a sweeping victory that evidenced its winning of an agrarian constituency, the DPJ pledged to pursue the income support system for individuals in the Lower House general election (Y. Yamashita 2008; Hori 2013). This strategy expanded the DPJ's power base from an

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[203] Tsutaya (2006, 34) argues that the management stabilization measure alone could be called "an inventory of the postwar agricultural policy" rather than "a turning point" in the sense that the government tackled the longstanding problem of small-scale farming with the introduction of direct payments. Yet, he admits calling it "a turning point" in that the government introduced a full set of measures including the direct payments and the agri-environmental scheme (Tsutaya 2006, 33).

[204] Prior to the launch of the management stabilization measure in 2007, its policy outline was introduced in October 2005 to follow the 2005 New Basic Plan that indicated the policy shift from price support to income support (Tomita 2013). The policy outline introduced this measure by abolishing the product-specific measure for several products including rice, wheat, and soybeans. The new measure consisted of two types of income support: 1) the support, called the padding measure (*geta*), to offset the difference in cost between domestic and import products in consideration of unfavorable conditions for production (for wheat and soybeans); and 2) the support, called the smoothing measure (*narashi*), to relax the fluctuation effect of agricultural products (for rice, wheat and soybeans).

urban constituency to include an agrarian one, resulting in its dominance in the election (Hattori 2013; Moriguchi 2013; Hoshiro 2011; K. Kawamura 2011; Sasada 2011). Consequently the LDP, which had held power almost continuously from its formation in 1955, finally surrendered its political power to the opposition DPJ in 2009.

Despite the initial momentum in favor of the agrarian constituency, the DPJ's turn in the agricultural policy was limited. Rather, its move to advocate a free trade policy allowed for the LDP's return to power in December 2012. Initially the DPJ's 2010 New Basic Plan spelled out "a diversity of motivated farmers" including small and part-time farmers as the target of political support in rivalry with the LDP's skewness toward large farmers (Tomita 2013; Shogenji 2012a; Shogenji 2013).[205] As promised in the campaign pledge, the income support system for individuals started in fiscal 2010, but its mechanism was intrinsically contradictory. On the one hand, the amount of income subsidies, largely determined per unit area, incentivized larger farmers, but insufficiently motivated small farmers to improve farm management (Tomita 2013; Shogenji 2013).[206] On the other, it encouraged small farmers to continue small farming rather than to lend their land for farmland aggregation given the relative advantage of the subsidies to

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[205] Shogenji (2013) attributes the limited turn of the DPJ's policy to a failure to amend New Basic Act (1999) that aimed to foster 'efficient and stable farm management entities' (Article 21).

[206] One of the two major programs in the income support system for individuals provided subsidies to make up the difference between the production costs and the sales prices for the commercial farm households and village-based farming organizations that pursued production adjustment of rice (Tomita 2013). The subsidies consisted of two parts: 1) the fixed amount (i.e., JPY15,000 per 0.1ha, equivalent to approximately USD133), and 2) the flux amount (the average sales price over the past three years deducted by the sales price of the latest year). For instance, a rice farm household with farmland of 1ha with an annual profit of JPY 400,000 (approximately USD 3,500) on average could receive an annual fixed subsidy of JPY 75,000 (approximately USD 665), because the subsidy was given for the farmland of 0.5 ha after the production adjustment (40%) and self-consumption (10%). With this amount, they may need to seek other income sources and would not be motivated to fully engage in farm management. On the other, a rice farm household with farmland of 10ha could receive an annual fixed subsidy of JPY 885,000 (approximately USD 7,840) for the 0.59ha (after the production adjustment and self-consumption) on top of an annual profit of JPY 3,690,000 (approximately USD 32,660) on average. They could also grow crops other than rice for additional subsidies on the remaining farmland of 4ha, and thus may be motivated to fully engage and possibly improve farm management.

land rents (Tomita 2013).[207] Thus, by design it was contradictory as it promoted and at the same time put a brake on scale expansion.[208]

As the first DPJ administration, the Hatoyama administration (2009-2010) caused a political rift between Japan and the US. To recover the international relations and pursue the economic revitalization, the subsequent Kan administration (2010-2011) abruptly announced its intention to consider Japan's participation in negotiations for Trans-Pacific Partnership (TPP) (Hattori 2013; Miura 2015).[209] As Kan advocated "the opening of the country in *Heisei*," it was meant as a large step to an economic partnership of the countries in the Asia-Pacific region essentially seeking to remove all tariffs among its members (Hattori 2013; Shimizu 2015, 211). While the initiative for TPP participation dichotomized public opinion, the next Noda administration (2011-2012) sought to join TPP negotiations in November 2011 (Shimizu 2015; R. Uchida 2015; Terada 2012).[210]

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[207] Landowners would reduce flexibility in land-use if they lend their land to others given a use right to the land (e.g., failure to immediately respond to sales opportunities), while the land rent was not attractively high (e.g., JPY 12,000 (approximately USD 106) per 0.1ha annually on average as of 2009) — encouraging owners to continue farming despite the unprofitability of small farming (Tomita 2013).

[208] Hattori (2013) positively evaluated the effect of the first three-year implementation of the income support system in the following respects: 1) the political support from many farmers, 2) the improvement of agricultural income, 3) the reduction of the area of rice cropping, 4) the high participation of large farmers in the system, and 5) the increase in rice-crop conversion. Yet, he criticized the system in the respect that the fixed amount of the subsidies was still provided even if a sales price exceeded the production cost given that subsidies consisted of two separate parts including the fixed and flux amounts.

[209] Miura (2015) points to three issues as the motivations for the government to join TPP negotiations: 1) to strengthen the economic cooperation between Japan and the US as its primary partner in balance with other ongoing cooperations with European Union (EU), China and South Korea; 2) not to be disadvantageous of the TPP negotiations that had already taken place among eight countries under the leadership of the US; and 3) to enhance the Japan-US alliance given the unstable regional situations particularly in East Asia. In addition to the intention to redeem the Japan-US alliance that was undermined in the previous Hatoyama administration, Hattori (2013) suggests that the Kan administration would have taken advantage of the lobbies from the side of Ministry of Economy, Trade and Industry (METI) to promote economic strategies as well as from the side of Ministry of Foreign Affairs (MOFA) to exercise leadership as the chair of the conference of Asia-Pacific Economic Cooperation (APEC) that was held in Yokohama, Japan in November 2010.

[210] The declaration of Noda's decision in November 2011 was followed by the preparatory negotiations between Japan and US (Hattori 2013; Terada 2012). While Noda faced the disaccord among the cabinet ministers and the persisting criticisms within the DPJ, he managed to overcome the opposition by appointing supporters to key leadership posts in the cabinet and party and carefully editing the text of his statement of declaration (R. Uchida 2015; Terada 2012).

With the increasing anti-protectionism pitch, the DPJ government also developed the Basic Policy and Action Plan in 2011 (hereafter called the 2011 Action Plan) to specifically focus on large-scale farming for international competitiveness (Fujino 2014; Ueda 2018; Tomita 2013; Shogenji 2012a; Shogenji 2012b).[211] The inconsistency of the policies resulted in the rout of the DPJ at the Lower House general election in December 2012, ceding power to the LDP.[212]

OPM-led agricultural policy-making

With the regained power, the LDP government restarted agricultural reform as part of the state project of economic revitalization from which the FB program developed. Soon after the electoral victory, the second Abe administration (2012-2014) floated a policy called 'Abenomics,' a package of economic development measures consisting of 'three arrows' (i.e., monetary easing, fiscal stimulus, and structural reforms) (Miura 2015). As expressed in the Prime Minister's commitment "My 'third arrow' will fell Japan's economic demons" (Financial Times, June 29th 2014), the administration pushed through the structural reform. This involved deregulation and liberalization of the agricultural sector to be open to foreign capital (K. Yamashita 2014b). Albeit the LDP's electoral pledge to conditionally 'disagree,' its government formally announced in March 2013 Japan's bid to join the TPP negotiations based on the

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[211] In anticipation of TPP participation, the Kan administration launched the Headquarters for the Revitalization of Food, Agriculture, Forestry, and Fisheries (HRFAFF) within his cabinet in November 2010 to take measures for sustainable and competitive agriculture (Fujino 2014; HRFAFF 2011). In October 2011, the HRFAFF decided the Basic Policy and Action Plan for the Revitalization of Our Country's Food and Agriculture, Forestry and Fishery Industries (i.e., the 2011 Action Plan), which spelled out the target of the agricultural structure for the next five years to be dominated by the farm management entities with farmland of 20-30 ha in flat regions and those with farmland of 10-20ha in hilly and mountainous regions (Fujino 2014; Ueda 2018; Tomita 2013). The decision of the 2011 Action Plan was followed by the programs to promote farmland aggregation to large farmers (e.g., Community Agricultural Master Plan). Thus the 2011 Action Plan is seen as the initial resurgence of the selective approach to farm scale expansion (Fujino 2014; Ueda 2018; Tomita 2013).

[212] Receiving criticism about its violation of various promises including the consumption tax increase in addition to the agricultural policy, the DPJ ended in dismal failure in the Lower House general election in December 2012 and transferred power to the LDP ruling by falling itself into one of the opposition parties (Hattori 2013; Sebata 2013; Musashi 2014).

clarification at the Japan-US summit that a prior commitment to eliminate all tariffs should not be a requirement for participation.[213] Under the scenarios of the participation in TPP negotiations, the cabinet approved the 'Japan Revitalization Strategy - Japan is Back' in June 2013 as a concrete plan of structural reform, where farmland aggregation through the FB program was proposed as a key measure (Fujino 2014; Hattori 2015; Kobari 2014; Minami 2013).

The FB program was first outlined by the Ministry of Agriculture, Forestry and Fisheries (MAFF) but institutionalized under the leadership of the Office of Prime Minister (OPM). Two months after the inception of the new government in February 2013, MAFF's Minister proposed the concept of the FB program to facilitate the '*Heisei* Land Reform' (Kobari 2014; Harada 2015).[214] This concept was soon taken up as a means of the growth strategy for Abenomics and was featured in the Prime Minister's speech in May 2013 on the policies under the Growth Strategy (Kobari 2014). With an aim to turn agriculture into a growth industry, the Japan Revitalization Strategy (June 2013) spelled out the goal as a Key Performance Indicator (KPI) that "[i]n the next ten years, 80% of all farmland should be used by skilled and diverse responsible entities," for which intermediary institutions will serve to consolidate and re-distribute farmland for the use by 'responsible entities' such as corporate farmers and large-scale

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[213] The LDP pledged in the general election in 2012 to attain competitive agriculture but to disagree on Japan's participation in TPP negotiations as long as elimination of all tariffs could be preconditioned for TPP negotiations, going against the DPJ that promoted the participation (T. Akiyama 2013; Hattori 2013). Yet, the second Abe administration declared its participation in TPP negotiations in March 2013, holding the assurance at the Japan-US summit in February 2013 that participation in the negotiations should not presuppose elimination of all tariffs without sanctuary (Kanda and Terabayashi 2013). Japan's formal entry into the negotiations in July 2013 was followed by the negotiations led by the US and Japan (Shimizu 2015).

[214] The Minister first presented the concept of the FB program at the second meeting of the Council for Industrial Competitiveness (CIC) on the 18th February 2013 as part of the plan to develop competitive agriculture, forestry and fisheries (Kobari 2014; Harada 2015). It was introduced as one of the three means to promote farmland aggregation and resolve farmland abandonment, including: 1) administrative guidance to landowners to resolve farmland abandonment; 2) intermediacy at the municipal level to facilitate matchmaking between owners and tenants; and 3) intermediary holding of farmland at the prefectural level when tenancy contracts cannot be made immediately (i.e., the concept of the FB program).

family farmers (Government of Japan 2013, 17).[215] This goal presumed that FBs as intermediary institutions would accelerate the pace of farmland aggregation between 2000 and 2010 (i.e., 20% increase from 27.8% in 2000 to 48.1% in 2010) even faster for the next decade.[216] With this ambitious goal, the FBs were established nationwide at the prefectural level in 2014 based on the Farmland Bank Act (FB Act) that was promulgated in December 2013 (Kobari 2014).[217]

This expeditious process was led by the OPM in conjunction with the business community rather than the conventional political relationship of "iron triangle." The Abe cabinet began to bolster the OPM leadership and robustly pursue the economic policy through administrative structuring (see Figure 3.1). To command macroeconomic policies, the administration reactivated the Council on Economic and Fiscal Policy (CEFP) advisory to Prime

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[215] In the context of the KPI, the MAFF refers 'responsible farmers' (*ninaite*) as: 1) 'certified farmers,' 2) those who meet the standards specified in the municipal 'Basic Concepts' (*Kihon-koso*) (e.g., those who meet the level equivalent to the standards of efficient and stable farm management in light of annual agricultural income, farming patterns, and management scale), and 3) village-based farming organizations (including unincorporated ones) (Kobari 2015). The area of farmland that is cultivated by 'responsible entities' through farmland transactions (i.e., transfer of ownership or use rights) or contract farming without farmland transactions is defined as the area of farmland aggregation (*Riyo-shuseki menseki*) (Kobari 2015). In general, the term of 'responsible farmers' has been used in discussions on agricultural policies to mean various types of entities responsible for local farm and/or farmland management depending on the contexts and the standpoints of speakers or writers (H. Kobayashi 2014). In the legal terms, it is defined in the New Basic Act (Article 4) (1999) and the 2005 Basic Plan, as farmers or farm management entities who engage in efficient and stable farm management or plan to improve farm management for efficiency and stability, often including certified farmers, village-based farming organizations, and corporate farmers (Yamauchi and Iwao 2011).

[216] The MAFF explained the ground for this goal at the open review meeting that was held by the Administrative Reform Promotion Council in November 2016 in Osaka with the involvement of external experts. It was explained that the FBs would facilitate farmland aggregation 1.5 times as fast as its speed for the decade between 2000 and 2010 given the new mechanism, though the decade was followed by the stagnation since 2010 (from 48.1% in 2010 to 48.8% in 2013) (Secretariat of Administrative Reform Promotion Council 2016). Besides the goal of farmland aggregation, the Japan Revitalization Strategy (2013) sets the goal that in combination with industry efforts, "skilled and diverse responsible entities" reduce "the cost of rice production" by 40% compared to the current national average cost (Government of Japan 2013, 17). In light of the consistency of these two goals, Hashiguchi (2013) points to a hidden policy goal to develop farm management entities with the standard level of the rice cropping area of 20ha which was specified in the previous policy documents, although this was not spelled out in the Strategy. The New Policy (1992) spelled out the goal to foster individual farm management entities with the scale of 10-20ha, while the 2011 Action Plan under the DPJ regime stated the goal at "agricultural structures in which management entities with the farmland of 20–30 ha in case of flat land areas and 10– 20 ha in case of hilly and mountainous areas are the majority" (Fujino 2014; HRFAFF 2011, 6).

[217] To materialize the FB program, the Japan Revitalization Strategy (2013) outlines the process to detail the scheme by autumn 2013 and swiftly institutionalize the measures including the legal system (Government of Japan 2013).

Minister at the Cabinet Office.[218] To command microeconomic policies, it newly established the Headquarters for Japan's Economic Revitalization (HJER) consisting of all the ministerial colleagues, under which the Council for Industrial Competitiveness (CIC) at the OPM served to elaborate growth strategies.[219] It also restarted the Regulatory Reform Council (RRC) advisory to the cabinet in January 2013 to reinstate administrative reform for deregulation.[220] As Abe stated "regulatory reform is the centerpiece of the growth strategy" at its first meeting, his government designed the RRC, in collaboration with the CIC, to promote economic revitalization rather than to curb administrative costs (Asano 2013; A. Noda 2013, 7). As such, the HJER was to act on the growth strategies developed through the 'two councils,' namely the CIC and the RRC, in cooperation with the CEFP responsible for the mid-and-long term economic policies including the TPP topics (Asano 2013).[221] All three councils (i.e., CEFP, CIC and RRC) involved a considerable number of politicians and non-parliamentary economists and entrepreneurs who were promoting a market-base economy (Shimizu 2015; Asano 2013).

Under this overall structure, agricultural policy-making was led by the OPM rather than the MAFF. To address the third arrow of Abenomics, the Abe administration launched two new

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[218] The CEFP was originally established in 2001 as part of the 2001 Central Government Reform resulting from the administrative reform in the 1990s, and boosted the leadership of the Koizumi cabinet (2001-2006) (Asano 2013). Yet, it adjourned upon the launch of the DPJ regime (also see Chapter 2) (Asano 2013).

[219] The Abe administration launched the HJER in December 2012, under which the CIC began in January 2013 (Miura 2015; Shimizu 2015; Asano 2013).

[220] The RRC had served since the 1990s to promote administrative reform for deregulation until the start of the DPJ ruling (Nakakita 2015; Asano 2013).

[221] The second Abe administration followed the conventional LDP policy-making system where the bills from the cabinet were submitted to the Diet as long as they were pre-approved by the Divisions of the Policy Research Council (*Seisaku-chosa kai bukai*), the Policy Research Council Board (*Sei-cho shingikai*) and the General Council (*Somu-kai*), and thus involved the restrictions on party debate (*Togi-kosoku*). Nevertheless, differently from the previous regimes, the parties did not necessarily exercise a dominant influence on the government policy-making processes, as the administration drew on all the key politicians from different political factions into the cabinet (e.g., three former party leaders, two candidates for the party presidency) while appointing a free-trade proponent from the trade sector as MAFF Minister, presumably in consideration of potential participation in TPP negotiations (Miura 2015).

headquarters relevant to agricultural policy: the Headquarters for Promoting Competitive Agriculture, Forestry and Fisheries (HPCAFF), and the Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries (HCRVAFF).[222] The former was established at the MAFF to develop mid-term visions of agriculture, forestry and fisheries, while the latter was headed by Prime Minister at the cabinet to extensively discuss the means to revitalize these industries. Despite the stronger relevance of these two headquarters to the farming sector, the two councils (i.e., CIC and RRC) exerted considerable influence on agricultural policy-making under the cabinet's initiatives (Yokoyama 2015). With a goal to promote growth strategies through regulatory reform, the two councils mostly accorded the agricultural reform with the demand from the economic quarters (Yokoyama 2015; Shimizu 2015). Through active interventions by the two councils, the scheme of the FB program, initially drafted by HPCAFF, was extensively modified as detailed below (Harada 2015; Yokoyama 2015; Kobari 2014).[223]

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[222] The administration established the HPCAFF in January 2013 at the MAFF to be led by the Minister of MAFF, and the HCRVAFF at the cabinet in May 2013 (Yokoyama 2015; Shimizu 2015).

[223] The HCRVAFF developed the ground design of the agricultural policy in December 2013, for which each of the two councils (i.e., CIC and RRC) organized an internal working group to specifically deliberate the issues on agriculture, and actively joined the discussions with the HPCAFF at MAFF (Yokoyama 2015). The opinions from the two councils were greatly incorporated in the final product. For instance, the HPCAFF proposed the preliminary scheme of the FB program by indicating how it reflected the opinions from the two councils at the HCRVAFF meeting in October 2013, and this preliminary version turned into the bill with little modification (Yokoyama 2015). The agricultural ground design largely built on Japan Revitalization Strategy, including the numerical targets (Yokoyama 2015; Shimizu 2015). The 2015 New Basic Plan, which presents the basic directions of agricultural policy based on the New Basic Act, reinforced the pre-determined directions that were decided in the Strategy under the OPM's leadership (Yokoyama 2015; Shimizu 2015).

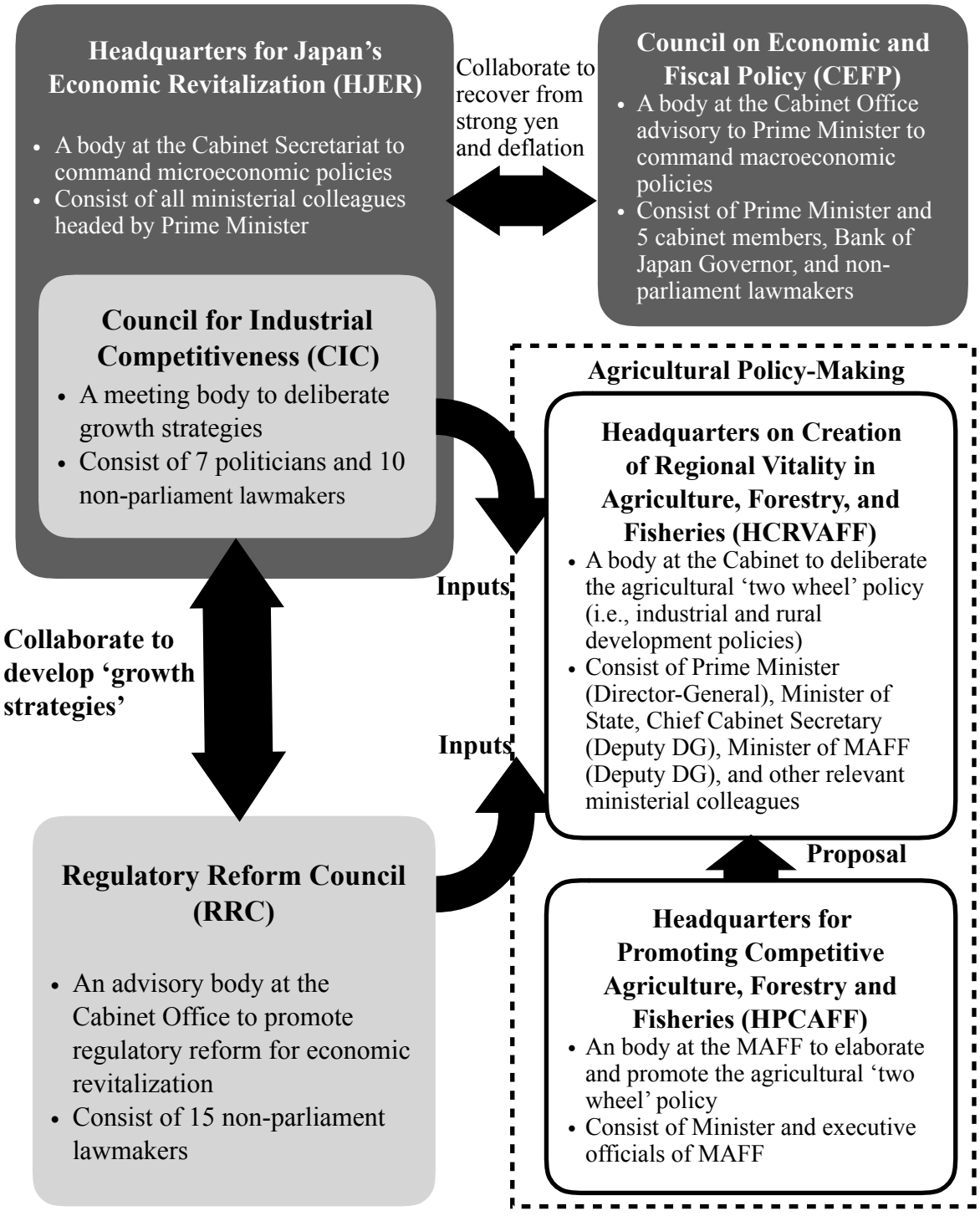

Figure 3.1 Policy-Making Structure under the New LDP Regime

Enablers of turn in agricultural policy-making

Furthermore, the fatal collapse of the so-called iron triangle allowed for OPM-led agricultural policy-making. Political clientelism for protectionism has fallen since the 1990s and then lapsed in the 2010s. The relationship between the LDP, the MAFF and the Japan Agricultural Cooperatives (JA) transformed with: 1) the "farm policy tribe" (*norin-zoku*) of Diet members and 2) the JA system.

The farm policy tribe:

The "farm policy tribe," the block of farm politicians, became even less influential over agricultural policy-making. The term 'policy tribes' (*zoku-giin*) is generally referred to a group of middle-ranking politicians who exert their expertise and political power in a certain sector among the jurisdictions of ministries and agencies, and thus has been the object to which bureaucrats and business people lay the groundwork for policy-making (R. Uchida 2015). In the farming sector, the policy tribe, one of the largest blocks within the LDP alongside of the commerce and construction tribes, formed into the iron triangle in association with the JA and the MAFF (R. Uchida 2015). Being sensitive to the interests of these groups through the clientelistic relationship in return for electoral votes, the tribe often pressured the government to pursue conservative agricultural policies in the form of subsidies, trade protection and other measures beneficial for farmers (R. Uchida 2015; Sasada 2008).[224]

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224 For instance, in the 1970s, the ministers from the farm policy tribe succeeded in raising rice prices in response to the request from the JA, while they initiated the production adjustment policy to address the issues of excessive rice and fiscal burden in accordance with the request from the MAFF while gaining the cooperation from the JA (R. Uchida 2015). The key figures from the tribe had maintained the tariffs and the rice prices to accord with the demands from the JA and the MAFF despite the trade liberalization since the end of 1970s. They had promoted the protective policies under the influence of the GATT Uruguay Round negotiations since the late 1980s, while sustaining the clientelistic relationships with the MAFF and the JA.

The decline in tribal power dates to the electoral reform of 1994, which systematically gave more power to the cabinet than the tribes (Ando 2017b). The reform changed the Lower House electoral system, which is more powerful than the Upper House.[225] Under the older system, candidates could win seats with a relatively small proportion of the total vote on the malapportioned electoral basis where more seats were allocated to rural regions than urban ones, but often faced intra-party competition in one district particularly in large parties like the LDP (Sasada 2008; Mulgan 2005; Krauss and Pekkanen 2004). This system encouraged candidates to exercise personalized campaigns to appeal to a narrow range of special interests and apply pork-barrel methods (e.g., higher subsidies to their districts), whereas the rural bias incentivized them to benefit the agricultural sector. As such, the older system enabled the tribe to take advantage of the clientelistic relationship and accumulate more influence over the sectoral policy than even LDP prime ministers. Under the new system where each party naturally placed one candidate in a district, candidates no longer had intra-party competition but needed a higher percentage of votes to win seats, whereas the electoral bias was moderated (Sasada 2008). This change forced candidates to seek support from the broader constituencies and appeal to a wider cross-section of the voting public on the quality of their policies (Sasada 2008; Reed, Scheiner, and Thies

[225] The reform changed the electoral system of the Lower House from a multimember district system with a single nontransferable vote (MMD/SNTV) to a mixed-member majoritarian system (MMM) with a single-member district (SMD) and proportional representation (PR) components. In the older MMD/SNTV system, each voter could cast one single vote for one specific candidate on the ballot in their district, and each electoral district elected multiple candidates (between two and six, depending on the size of population) (Sasada 2008; Krauss and Pekkanen 2004; Hirano 2002). The new MMM system, which was adopted in 1994, was a hybrid system of 300 single-member districts (SMDs) and 200 (reduced to 180 in 2000) proportional representation (PR) seats (Krauss and Pekkanen 2004; Sasada 2008; Hirano 2006). Under the new system, only one Diet member was elected from each SMD in the SMD component (300 SMDs, into which the former 129 MMDs were divided and rearranged), while in the PR component Diet members were elected off the party lists in proportion to the number of PR votes the parties receive (180 PR seats, which are divided between 11 geographic blocs) (Hirano 2002, 2006; Horiuchi and Saito 2003). In the new system, voters were given two votes, one to cast for an SMD candidate and one to cast for a party in the PR system, whereas SMD candidates could also have a place on the PR lists (Hirano 2002, 2006).

2012).[226] The changed electoral environment diluted the importance of the farming constituency for candidates while making the tribe less influential within the LDP (R. Uchida 2015).

Based on the new electoral system, the OPM strengthened power relative to the tribes to pursue the structural reform of the LDP that began with its fall to an opposition party in 1993.[227] In particular, Prime Minister Koizumi (2001-2006) extended the administrative reform, which was vigorously pursued under the Hashimoto administration (1996-1998), to the active involvement of the business community (Krauss and Pekkanen 2004; Tanaka 2007; R. Uchida 2015; Wajima 2017).[228] With the campaign slogan to "change the LDP, change Japan," he cut back on particularistic spending (e.g., agricultural subsidies, budget transfers to local governments) and undercut the LDP's clientelistic systems to pursue the "reform without sanctuary" (Reed, Scheiner, and Thies 2012, 354).[229] This reform took advantage of the Council on Economic and Fiscal Policy (CEFP) advisory to Prime Minister as "the engine of Koizumi's reforms" and several other means to insure the authority of the LDP presidency (e.g., selection of Cabinet ministers, clarification of the Prime Minister's right to initiate policy) (Tanaka 2007, 6;

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[226] Sasada (2008) cautions that those candidates who run only in a PR system can represent particularlistic interests to win seats because each PR district is several times bigger than single-member districts and particular groups can have sufficient number of votes. Yet, he notes that candidates usually run in a single-member district and a PR district simultaneously to increase the possibility of winning a seat. He also suggests that politicians have faced an increased difficulty to bring pork-barrel to their district due to the government's efforts to cut down spending to recover from the increasing budget deficits.

[227] Following the fall to an opposition party in the Lower House election in July 1993, the LDP initiated its internal structural reform (Wajima 2017). With the launch of the Headquarters of Party Reform in August 1993, it decided the policies to reform the organization and operation of the party by December 1994 whereby the central policy-making power was to be strengthened through the improvement of advisory councils.

[228] Upon his accession to the LDP presidency, Hashimoto launched the Headquarters for Promoting Administrative Reform in November 1995 (Wajima 2017). Subsequently, he established several commissions in the area of deregulation and administrative reform where former ministerial colleagues and non-parliament experts from the business community discussed the agricultural policy as part of the administrative reform.

[229] For instance, the Koizumi administration reduced the subsides for local governments by about JPY 4 trillion through the restructuring of small municipalities and the revamp of the allocative government grants (Rosenbluth, Saito, and Yamada 2011).

Nishikawa 2007; R. Uchida 2015).[230] In reaction to the DPJ's criticism of the LDP's agricultural policy and the electoral defeat at the Upper House in 2003, however, the Koizumi administration allowed the tribe to moderate the policy to support farmers, but not too selectively.[231] Nevertheless, the landslide victory of the Koizumi LDP in the Lower House election in 2005 led to its return to the drastic reform.[232]

The farm policy tribe at the LDP also experienced internal changes in the 2000s, while being forced to appeal the policies to consumers rather than narrowly to farmers or agricultural cooperatives. The changes included generational turnover with the retirement of its top members, the stepping down of MAFF ministers liable for misuse of political funds, and the appointment of MAFF ministers in favor of trade liberalization (Miura 2010; Sasada 2008). The regime change from the LDP to the DPJ reinforced the OPM-led policy-making in that the DPJ regime clarified the roles of politics and bureaucracy under the slogans 'political leadership' and 'centralization of the Cabinet' (Miura 2015, 72). Furthermore, the LDP tribes went through the regime changes where the intra-party confrontations led to unsuccessful negotiations (e.g., the

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[230] Under the Koizumi administration, the CEFP exercised strong influence, for instance, over the budget preparation that used to be led by Ministry of Finance, while leading to the postal reform in 2005 that had previously faltered in the face of opposition from bureaucrats and policy tribes (Tanaka 2007; Musashi 2010). In particular, extending the proposal from Japan Business Federation (*Keidanren*) that was made in 1997, the CEFP started in 2002 to deliberate the system of Special Agricultural Zones to enable business corporations to join in farm management in special zones (see Chapter 2) (Wajima 2017). While the MAFF became inclined to take advantage of entries of business corporations for agricultural structural improvement around these days, the LDP tribe opposed the idea of this new system to echo the protest from the farm sources who criticized the hasty reform. As originally proposed by Japan Business Federation, however, the system was institutionalized in December 2002 for its implementation from 2003.

[231] In the process of developing the 2005 New Basic Plan, different stakeholders debated the scope of 'responsible farmers' (*Ninaite*) who were supposed to be motivated and capable for stable farm management and aggregate farmland through several policy tools (Wajima 2017). In line with the agrarian groups such as Central Union of Agricultural Cooperatives (*Zenchu*), the DPJ criticized as 'the cutoff of small farmers' the narrow scope of 'responsible farmers' that was proposed by the MAFF and the farm policy tribe. In response, the tribe at the LDP who were concerned of the defeat in the Upper House election in 2003 demanded to relax the requirements for 'responsible farmers.' Their request was incorporated in the 2005 New Basic Plan (2005) as well as the Outline Plan on Stabilization of Farm Management and Income (2005) where special advantage was given to the farmers in the regions with unfavorable conditions and those making efforts in management improvement.

[232] Subsequently, the MAFF launched the Headquarters for Promoting Agricultural Policy Reform (*Nosei-kaikaku suishin honbu*) in 2005 to implement the Outline Plan on Stabilization of Farm Management and Income, while the policy arena outside the MAFF continued to advocate the reform of agricultural land system for entries of business corporations (Wajima 2017).

defeat of the LDP, and the self-destruction of the DPJ). Learning from the lessons, the tribe adapted to the OPM-led policy-making by embracing anti-protectionism (R. Uchida 2015). In addition, even after the LDP's return to power, they continuously faced decreased farm votes. Agrarian communities had already dealigned from the LDP since the Koizumi reform whereas the agricultural population continuously declined (R. Uchida 2015).[233]

The Japan Agricultural Cooperatives (JA):

The system of Japan Agricultural Cooperatives (JA: *Nokyo*), another 'linchpin' of the triangle, has also diminished in power (Bullock 1997; Horiuchi and Saito 2010). The JA is a collective of agricultural cooperatives, and has long exploited its dense network to promote conservative policy for small and part-time farmers. Nearly all farmers are JA members, although the Agricultural Cooperative Act (ACA) guarantees farmers' freedom of establishment of and participation in any types of agricultural cooperatives (Godo and Takahashi 2012).[234] This is because affiliation with the JA has been almost "a *sine qua non*" for farmers to engage in farming, whereas the economic incentives of membership are considerable and extend to daily

[233] The size and influence of the LDP's farm policy tribe shrank in tandem with the falling number of farm votes, as many powerful members of the tribe lost their seats particularly in the 2009 election and never returned to the Diet (Honma and Mulgan 2018). Instead, the LDP's support base became more evenly spread across the farming and non-farming populations as shown in the more balanced electoral performance of the LDP in recent elections across all types of constituencies.

[234] The number of JA member households remained larger than the number of farm households due to a near 100 % membership rate among farm households and a large number of retired farmers who depended on JA's financial services and real estate business (Horiuchi and Saito 2010; T. Uchida 2003). For instance, in 2015 the total of farm households was 2.16 million households (MAFF 2018c) whereas the total of JA' regular member households reached 3.77 million households (MAFF 2016b). Despite the decrease of regular members since the 1970s, the total membership has been still increasing as of 2018 (MAFF 2017i; JAcom 2018a). This is because of the increase in associate membership, which resulted from the JA's recent efforts in expanding the financial and insurance businesses available for non-farm population (Nikkei Shinbun, May 9, 2015).

lives (Bullock 1997).[235] With heavy governmental protection that granted an exception to the antitrust law, the JA enjoyed monopolistic control over agricultural inputs and products and the rural financial market.[236] In return, it served as a vehicle to mobilize farm votes and provide campaign funds to politicians of the tribe (Sasada 2008). With its branches throughout the country, the JA has served as a hub of get-out-the-vote activities, taking advantage of self-governing nature of farming villages.[237] Its national peak organization, Central Union of Agricultural Cooperatives (*Zenchu*), not only played "a pivotal role in collective bargaining" between the government and farmers but also served as "a pressure group" to advance farmers' interests (Horiuchi and Saito 2010, 430; Sasada 2008, 130). Furthermore, the JA worked as "a *de facto* sub-governmental body" to help the MAFF develop and implement policy (e.g., distributing subsidies for farmers) (Godo and Takahashi 2012, 4). With the support from LDP politicians, it secured the status of the MAFF that has been continuously criticized for its exorbitant sizes of personnel and budget (Godo and Takahashi 2012).

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[235] JA's businesses are not only farming activities (e.g., shared-use of agricultural facilities, joint-shipping of agricultural commodities, technical assistance, and easy input purchases) but extend to various services for daily lives (e.g., banking and insurance, supermarkets, ceremony halls, gasoline stations, and travel ticketing) (Horiuchi and Saito 2010; K. Yamashita 2009; Sasada 2008).

[236] For instance, the JA was given a monopolistic position in the sale of fertilizers, pesticides and farm machinery as well as the collection of rice harvests (Godo and Takahashi 2012; Horiuchi and Saito 2010). Although some large-scale farmers have developed their own supply and distribution channels, small-scale farmers, who dominate the JA membership, have been dependent on JA's services that are easily accessible to them (Godo and Takahashi 2012). Furthermore, the mutual dependency between farmers and the JA has been reinforced through the JA's financial and insurance services and swelled these functions: most farmers have borrowed money from the JA at below-market interest rates for their purchase of fertilizers and machinery, while part-time farmers banked incomes or revenues from their non-farming activities to the JA that has taken advantage of such financial resources for their non-farm business activities (Horiuchi and Saito 2010; K. Yamashita 2011).

[237] Besides the political interests and dense network of the JA, the literature points to the institutional features of farming communities (e.g., effective coordination, monitoring, compliance, and loyalties) as the factors enabling farmers to be excellent campaigners to mobilize the electoral votes for the LDP (Horiuchi and Saito 2010; Sasada 2008; Godo and Takahashi 2012). For instance, Horiuchi and Saito (2010) note that farmers, who relied substantively on political discretion, utilized family and communal ties to mobilize support for the LDP even by extending such ties to the relatives and family members dwelling in cities. They also explicate that senior members of local organizations often monitored the polling stations to secure fairness in voting conduct but could even imperfectly identify whom voters casted their ballot for in half-open voting booths, while the rural voting environment covering a few hundred households at each voting station allowed candidates to easily estimate who voted for whom with surprising accuracy. They argue that these monitoring and enforcement mechanisms enabled the governing party to reward farmers who campaigned for the party and punish those who defected.

However, the JA has been receding from its privileged position since the 1990s mainly on three grounds: 1) electoral reform; 2) financial status; and 3) representation of farmers' interests. First, the 1994 electoral reform undermined JA's power to mobilize farm votes. It deprived the interests in the clientelistic relationship of both farmers and politicians, since their additional efforts would not much alter electoral outcomes.[238]

Second, the JA has faced an increasingly severe financial situation since the 1990s, which has further undermined its political power and organizational capacity. In the context of the post-bubble economy and the shrinkage of farm population, its business enterprises experienced an increasingly harsh financial climate, whereas its monopolistic position no longer stands under market liberalization and administrative reforms (Mori, Senda, and Iba 2003; Honda 2007).[239] Then, the JA undertook organizational restructuring, including mergers and dissolutions of local cooperatives that somewhat improved management efficiency but often reduced farmers' access and collaboration to them (Mori, Senda, and Iba 2003; Onozawa 2005; O. Takada 2006; N. Ishida 2008).[240]

Third, the DPJ's victory in 2009 evidenced that the JA did not necessarily serve the interest of farmers. The DPJ successfully gained more seats than the JA-backed LDP by directly

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[238] On the one hand, farmers became less motivated to campaign for the party in the new system that appeared to be less sensitive to farmers' efforts in political mobilization than the old system, resulting in the drop of turnout in the elections in some farming communities (Horiuchi and Saito 2010). On the other, the LDP became mostly indifferent about the political skills of the JA that used to divide votes among different lawmakers in the former system (Godo and Takahashi 2012). As such, the 1994 election reform discouraged both the farmers and the politicians to remain in the clientelistic relationship tied with the JA. In addition, it allocated fewer seats to rural areas, furthering the decline of JA's political power.

[239] The Ministry of Finance pursued financial market liberalization in the mid-1990s, which deprived the JA of various privileges in its banking and insurance businesses (Godo and Takahashi 2012). The JA often increased its profit margins by investing farmers' deposits in nonagricultural sectors while its local organizations were dependent on government relief measures from chronic deficits: In 1996 the lax investment of the JA money triggered the *jusen* (housing loan companies) problems or the Japanese predecessor of the subprime crisis (Horiuchi and Saito 2010).

[240] Takada (2006) shows that not only the members' utilization rates of the services but also some indicators of management efficiencies declined in accordance with the increase of the management scale of JA's local cooperatives for the period between 1990 and 2006 during which the number of the cooperative dropped from 3,500 to 845.

appealing to farmers with the proposal of the income support system for individuals (Horiuchi and Saito 2010; Honma and Mulgan 2018). To implement agricultural policy, the DPJ government also bypassed the JA and its network, and thus further debilitated the JA's administrative reach to farmers.[241] Returning to power, the LDP government declared that it would reform the JA for the benefit of farmers (Honma and Mulgan 2018).[242]

3.1.3. Policy instruments

Along with the political swing heightened since 2007, three major policy developments led to the FB program: 1) the 2009 amendment to the Agricultural Land Act (ALA); 2) the 2012 launch of the Community Agricultural Master Plan (CAMP) program; and 3) the 2013 legislation of the Farmland Bank (FB) Act. First, under the regime of the Liberal Democratic Party (LDP), the ALA amendment further relaxed tenancy regulations to allow for the entry of business corporations into farm management and diluted the 'cultivator-oriented principle.' Previously, legally qualified tenant corporations were limited to 'Agricultural Production Corporations' (*Nogyo seisan hojin*), but the 2009 amendment allowed all types of corporations to enter into the farming sector. Second, the government under the regime of the Democratic Party of Japan (DPJ) introduced the CAMP program in 2012 to facilitate planning of farmland use with

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[241] The DPJ's initiatives to dampen the JA's political power (e.g., submitting a bill in 2009 to amend the Agricultural Cooperative Act (ACA) for compliance with political neutrality, beginning the income support system for individuals in 2010 for direct payments to farmers) resulted in no candidacy from All-Japan Agricultural Policy League (*Zenkoku noseiren*), the national federation of the JA's political groups, in the 2010 Upper House election where 6 policy-makers of the farm policy tribe stepped down (R. Uchida 2015).

[242] While the second Abe administration took advantage of the evidence shown by the DPJ regime that the interests of the JA and the farmers were not monolithic (Honma and Mulgan 2018), the initiative of the LDP government to reform the JA dates back to the commission that was held by the MAFF between April and December of 2000 to discuss the businesses and organizations of the JA system (Morozumi 2017).

a focus on the roles of local actors. Finally, with the LDP's return to power, the FB Act was established in 2013 to expedite farmland aggregation to large farmers.

Agricultural Land Act (ALA) Amendment in 2009

The amendment to the ALA in 2009 was a radical change in the agricultural land system, as called "*Heisei* Land Reform" or "the liberalization of tenancy" (Harada 2017b, 104; Hiramatsu and Enomoto 2014, 257).[243] This amendment largely tempered the 'cultivator-oriented principle' of the ALA to be inclusive of all types of corporations. Stemming from the policy-making of the New Policy (1992), the political agenda on the opening of the farming sector to business corporations was discussed as part of the administrative reform for deregulation.[244] In particular, Japan Business Federation (*Keidanren*) proposed a stepwise relaxation of farmland controls in 1997 in the process of developing the New Basic Act (1999). The proposal included three steps to expand business corporations' rights to farmland; first to capital investment, then to tenancy of farmland, and finally to ownership of farmland.[245]

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[243] The words "*Heisei* Land Reform" were first used in the document entitled "Agricultural Reform for Consumers" (*Shohi-sha no tameno nogyo-kaikaku o*) that was submitted by four experts at the CEFP meeting held in May 2008 (Kishi 2009). The reform was introduced as one of the policy packages, which included key concepts that led to the 2009 ALA amendment (e.g., the separation between ownership and usership). Several scholars evaluated the 2009 ALA amendment as a drastic reform given its extraordinary change in the direction, and also pointed out that policy-makers and officials started to use the terms 'the new law' or 'the new system' rather than 'the amendment.'

[244] The policy discussion leading to the New Policy (1992) was seen as a turning point in that MAFF declared itself to start considering the farmland acquisition by business corporations as well as that the business community started to discuss the new entries of business corporations not only as a means to foster 'responsible farmers' but to reform the administration for deregulation (see also Chapter 2) (Ohshima 2003; Kenji Ishihara 2009).

[245] Japan Business Federation (*Keidanren*), an opinion leader of the business community, has advocated the market liberalization of agricultural produce since around 1978 under the trade friction between Japan and the US as well as the Uruguay Round negotiations (Sakurai 2010). It has increasingly intervened in the agricultural policy under the administrative reform for deregulation. In the policy-making process of New Basic Act (1999), it aired its opinion that the government must reconsider the 'cultivator-oriented principle' of the ALA in October 1995 (Harada 2017b; Kenji Ishihara 2009). Then in September 1997 it published "Proposal on Review of the Agricultural Land Act" where it proposed the three-step deregulation of agricultural land system (Kenji Ishihara 2009; Sakurai 2010; Harada 2017b).

Following these steps, the negotiations among the LDP, the MAFF and the Council on Economic and Fiscal Policy (CEFP) attained the liberalization of tenancy but not ownership. Under the first Abe administration (2006-2007), the CEFP discussed the farmland system as part of the reform agenda to facilitate an economic partnership agreement (EPA) and called for the access to use rights by all types of corporations and the liberalization of ownership transactions (Wajima 2017; Kenji Ishihara 2009). Both the LDP and the MAFF deliberated the expansion of tenancy but not to open ownership. With the rapid decline of power against the pro-farmer pitch of the DPJ since 2007, the LDP government carefully refused the CEFP' radical proposal, arriving at a middle course between business and agrarian sides.[246]

Nevertheless, the 2009 amendment fundamentally changed the purpose of the law; from protection of ownership to promotion of usership (or tenancy). In place of the 'owner-farmer principle' (*jisaku-no shugi*), it included two new elements in the purpose: 1) efficient and appropriate farmland use, and 2) farmland preservation. Thus it diminished the original 'owner-farmer principle' for the sake of efficiency, but did not totally extinguish the 'cultivator-oriented

[246] Following the failure in the Upper House election in July 2007, the farm policy tribe of the LDP became cautious about the farmland reform and recalcitrated against the proposal from the CEFP (Wajima 2017). The stepping down of Prime Minister Abe (who promoted the farmland reform) largely dampened the momentum and then delayed the progress in the reform, while the LDP continuously secured the support for the reform under the pretext of stable food supply.

principle.'[247] The roles and responsibilities of 'cultivators' were omitted in the bill but revived at the Diet deliberations that took into account their prior contribution to farmland use in harmony with 'local areas' as well as their status in society.[248] Consequently, the 2009 ALA gave the meaning of farmland not only as 'productive resources' but still also as 'local resources;' those granted use rights should be preferably 'cultivators' who have conventionally engaged in farming (D. Takahashi 2013; Harada 2017b). In this regard, the 2009 ALA has a dual nature with the (diluted) 'cultivator-oriented' approach and a more open-ended approach to efficient farmland use, making it difficult to express in one principle.[249]

For the first purpose of efficient and appropriate farmland use, the amendment loosened tenancy controls and introduced a new intermediary mechanism (Takayoshi Hashimoto 2009). With the relaxed controls, it allowed almost any individual and corporation to acquire 'use rights' to farmland wherever it was as long as they had labor and technical resources (Harada 2017b; D.

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[247] The 1970 amendment to the ALA added the role of tenancy in the efficient farmland use to the purpose, and thus was called the shift from the 'owner-farmer principle' to the 'cultivator-oriented principle' (Ishigaki 2010). Until the 2009 amendment, however, the subsequent amendments still kept the wording expressing the 'owner-farmer principle' that "the ownership of agricultural land by cultivators themselves is most appropriate," while it held various restrictions about who can lease farmland (Kishi 2009). The 2009 ALA deleted the words that exactly expressed the 'owner-farmer principle' (D. Takahashi 2013), and instead added the words promoting the cultivators' acquisition of farmland rights and to control farmland conversion and preserve farmland with an ultimate goal to 'stabilize the status of cultivators and boost domestic agricultural production' (Article 1) (Harada 2017b; D. Takahashi 2013). Furthermore, the 2009 ALA additionally included a new provision on responsibility of 'persons entitled to cropland' (Article 2.2) to ensure appropriate and efficient use of farmland, stipulating that "[p]ersons who have ownership of or the right of lease of cropland, or any other right to use and derive profit from cropland must ensure that cropland is used in an agriculturally-appropriate and efficient manner." (D. Takahashi 2013; Harada 2017b). Thus the 2009 ALA still stressed the important roles and responsibilities of 'cultivators' in farmland use. Despite no definition of 'cultivators' provided in the ALA, the 'cultivator-oriented principle' in general means that rights to farmland should be given to cultivators who themselves engage in farming in practice and thus reside, live and act as a member of a farming village (Ishigaki 2010; D. Takahashi 2013).

[248] Politicians from three parties at the Lower House (i.e., the LDP, the DPJ and the New Komei Party (NKP)) as well as non-parliament experts advocated the revival of the concept of 'cultivators' in the 2009 ALA in the course of Diet deliberations (Kishi 2009; D. Takahashi 2013). The Diet added the following points to the bill in the purpose (Article 1): 1) the invaluable role of farmland ownership by 'cultivators themselves,' 2) the acquisition of rights to farmland by 'cultivators,' and 3) the 'harmony with local areas,' and 4) the securement of 'the status of cultivators' (D. Takahashi 2013). It also additionally included a new provision on 'Consideration of Operations' (Article 63.2) to ensure that "various agricultural efforts based on independent decisions by farmers regarding the type, scale, etc. of agricultural management are respected and that "cropland, which provides precious resources for local areas, is put to effective agricultural use in harmony with local areas" (D. Takahashi 2013).

[249] Different scholars and politicians gave different names to the principle of the 2009 ALA, including 'new cultivator-oriented principle,' 'use principle,' 'use-priority principle,' 'appropriate and efficient use principle' and 'user-oriented principle' (D. Takahashi 2013; Kishi 2009).

Takahashi 2013; Sakurai 2010). However, it placed conditions to ensure that tenants should continuously engage in farmland use in harmony with local agriculture.[250] To ensure and monitor continuous engagement, it expanded the role and responsibilities of agricultural committees, to which general corporations as tenants were to annually report the status of farmland use.[251] At the same time, the amendment relaxed the eligibilities for 'Agricultural Production Corporations' to facilitate the incorporation of village-based farming organizations and to inject non-agricultural corporations and their capital.[252] Albeit with the conditions to harmonize with local agriculture, the amendment liberalized tenancy and diversified farmland users to promote free and competitive entries of new farmers (Sakurai 2010; Harada 2017b).[253]

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[250] Prior to the 2009 amendment, the ALA granted use rights for: 1) individuals who regularly engaged in farming (over 150 days annually), 2) 'agricultural production corporations,' and 3) 'special corporations' (*tokutei-hojin*) eligible for tenancy only at the districts with considerable abandoned farmland under the Special Corporation Loan Program (effective in the 2005 PIAMF Act amendment) (M. Takada 2009; Harada 2017b; D. Takahashi 2013). While the first two types remained eligible, the 2009 amendment allowed general corporations (including business corporations) under the additional conditions to ensure harmonious local agriculture, but not limited to certain districts. The additional conditions (Article 3.3) included: 1) the written contract with a condition of cancellation in case of inappropriate use (Article 3.3.1); 2) the prospect that tenants would ensure their continuous and stable engagement in farm management in collaboration with other local farmers (Article 3.3.2); and 3) the regular engagement of one or more of executive officers in farming in case of a corporation (Article 3.3.3) (Harada 2017b; D. Takahashi 2013; Sakurai 2010; M. Takada 2009). During the Diet deliberations, the second and third conditions were added to the bill to ensure the harmony between tenants and local agriculture (Harada 2017b; D. Takahashi 2013). In addition, the Diet deliberations added a new stipulation (Article 3.2.7) to mandate tenants to coordinate farmland use with the adjacent areas and otherwise not to grant them use rights (D. Takahashi 2013; Harada 2017b).

[251] In addition to the conventional roles in screening, permitting and authorizing farmland transactions and conversion, the roles of the agricultural committees extended to include: 1) field survey and reporting to mayors in the case of tenancy arrangements with general corporations; 2) monitoring of the status of farmland use after granting general corporations use rights, including admonition to violators or cancellation of contracts if the status of farmland use is inappropriate; 3) annual survey of the status of farmland use (Sakurai 2010; Harada 2017b; D. Takahashi 2013). Thus, the amendment gave the agricultural committees not only additional responsibilities but more authority to ensure local agricultural development and coordinate the relations between local and new farmers in consideration of the local status (Harada 2017b).

[252] To promote the incorporation of village-based farming organizations, the amendment enabled lenders (i.e., landowners) to have a right to vote as a member of an Agricultural Production Corporation (Article 2.3.2) (Harada 2017b; D. Takahashi 2013). To lure general corporations and their capital from outside the farming sector, it relaxed the restrictions that limited the voting power of affiliated enterprises of an agricultural corporations (e.g., business corporations), and raised the upper limit of the voting power of associated enterprises that collaborated on agricultural businesses with an agricultural corporation (Article 2.3.2) (Harada 2017b; D. Takahashi 2013; Sakurai 2010; M. Takada 2009). Consequently, the number of agricultural corporations increased 1.45 times for 7 years, from 11,829 in 2010 to 17,140 in 2017 (Harada 2017b; MAFF 2018l). Also, the number of general corporations that entered into farm management through tenancy increased five times the trend prior to the 2009 ALA amendment, from 427 in 2009 to 3,030 in 2016 (Harada 2017b; MAFF 2018l).

[253] The amendment also abolished the standard land rent system, removed the restrictions on ownership of tenanted farmland, and extended the maximum tenancy contract life. Harada (2017b) suggests that these changes were intended to secure free entry and competitive market conditions for new tenants.

The revision also introduced the Farmland Use Accumulation Facilitation (FUAF) Program (*nochi-riyo shuseki enkatsuka jigyo*) as an intermediary mechanism to enhance both farmland aggregation and consolidation through tenancy.[254] While inheriting the municipal components of the Agricultural Land Holding Rationalization (ALHR) program, the FUAF program involved a new project called the farmland owner-understudy project (*nochi shoyusha dairi jigyo*).[255] This project designated municipal-level organizations as FUAF agencies to be entrusted by owners for 'unconditional' farmland transactions to sell or lend farmland on behalf of owners to qualified farmers such as certified farmers (Kudo 2010; Harada 2017b; Kenji Ishihara 2009).[256] Similarly to the ALHR program, this scheme enabled the FUAF agencies to aggregate and consolidate farmland in a technically and economically rationale form, as the agencies were given 'unconditional' authority to identify tenants (Kudo 2010). Differently from the predecessors, however, the project, which made direct contracts between owners and users, could avoid the risks associated with the interim holding, such as a deficit in selling prices (Kudo

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[254] The 2005 New Basic Plan (March 2005) put forth the 'Vision of Agricultural Structure' (*Nogyo-kozo no tenbo*) that the area managed by responsible farmers would reach 70-80% of the total farmland mass by 2015. However, the area managed by responsible farmers accounted for only 45% (2.1 million ha) in 2007. Furthermore, the farmland managed by each entity was fragmented across 29 locations in 2006 despite the increase in the farmland area managed by an entity, making the government concerned not only with the slow progress of aggregation but also with the limited improvement of fragmentation (Takayoshi Hashimoto 2009).

[255] The FUAF program was stipulated in the PIAMF Act that was amended in 2009 along with the ALA amendment (Harada 2017b; D. Takahashi 2013). The program consisted of three projects: 1) the farmland resale and sublease project (*nochi baibai to jigyo*); 2) the farmland owner-understudy project (*nochi shoyusha dairi jigyo*); and 3) the training project (*kenshu to jigyo*) (Harada 2017b; Kobari 2014; MAFF 2011b). While the second project was newly introduced, the first one was basically the same as the municipal elements of the ALHR program through which the designated agencies at the municipal level served to purchase or lease farmland from owners, make arrangements for farmland consolidation, and then sell or lease out farmland to users (Kobari 2014). The farmland, which temporarily held by the agencies through the first project, was used for the third project to offer on-site training for those interested in entering into farm management.

[256] Under the FUAF program, the designated organizations were called the FUAF agencies: the eligible organizations to engage in the farmland resale and sublease project were limited to municipal governments, agricultural cooperatives of the JA system and municipal government corporations, while other non-profit corporations were also eligible as the FUAF organizations to engage in the farmland owner-understudy project (Kobari 2014; Kenji Ishihara 2009).

2010; D. Takahashi 2013; Takayoshi Hashimoto 2009).[257] The FUAF agencies, over half of which were hosted by the agricultural cooperatives of the JA system (a quarter hosted at municipal governments), made a considerable achievement in farmland tenancy until the FB program was introduced in 2014 (Harada 2017b).[258]

For the second purpose of farmland preservation, the revision reinforced the controls of both farmland diversion and abandonment (Takayoshi Hashimoto 2009). To hamper farmland diversion, it tighten the controls in terms of both the permission criteria and the penalty for violation (Ishigaki 2010; D. Takahashi 2013). First, it introduced the legal conference system on public farmland conversion whereby the ALA additionally obliged the parties (e.g., owners, users, developers) to consult with the national or prefectural government in advance of conversion for public purposes, which was previously free from any legal approval.[259] Second, it stiffened penalty for violation, by raising the maximum fines for illegal conversion, allowing for administrative subrogation for *restitutio* in *integrum*, and tightening the standards of farmland

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[257] While the ALHR program faced an increasing risk of a deficit in selling prices particularly on the recent trends of farmland price depreciation, it often involved mismatches between users' needs/interests and available farmland that the ALHR corporations purchased or leased from owners (Takayoshi Hashimoto 2009). The ALHR program comprised the entrustment project, where the ALHR corporations temporarily received ownership but could systematically avoid the risks associated with the interim holding of farmland (Kudo 2010). However, this entrustment project was not well recognized in the farming communities.

[258] The farmland area that underwent transactions in this project (mostly through use-right settings based on the PIAMF Act) increased from 18,000 ha in 2010 to 55,000ha in 2013 also with the aid of subsidies for landowners who participated in the project, but has decreased since 2014 when the FB program began: reduced to as much as one third of its peak (around 18,000ha) (Harada 2017b).

[259] Prior to the amendment, the ALA exceptionally allowed for so-called 'public farmland conversion' to build public facilities (e.g., schools, hospitals, social welfare facilities) without legal permissions, while an initiative for farmland conversion in principle required a permission from the national government (in the case of farmland larger than 4ha) or the prefectural government (in the case of farmland not larger than 4ha) (Articles 4 and 5) (D. Takahashi 2013; Takayoshi Hashimoto 2009; Ishigaki 2010). However, this exception often sparked off farmland conversion in the adjacent areas. Albeit no need for permission, the amended ALA imposed an obligation on the parties (e.g., owners, users, developers) to consult with the national or prefectural government even in the case of farmland conversion to build public facilities.

categorization allowable for conversion.[260] In addition, with the amendment to the Act on Establishment of Agricultural Promotion Regions (EAPR Act), the zoning system was strengthened to ensure that superior farmland (*yuryo-nochi*) is systematically preserved.[261] Given the prevalent malpractices (e.g., ex-post statutory ratification, loose statutory interpretation), however, concerns remained about the enforceability of the amended law due to the ambiguity of several criteria, local authorities' discretion, and the absence of the secured means to achieve the goals (D. Takahashi 2013; Takayoshi Hashimoto 2009; Ishigaki 2010).

To redress farmland abandonment, all the related stipulations moved from the Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act) to the ALA to make them applicable to 'all kinds of farmland' whereby most control of the municipalities moved to the agricultural committees (Harada 2018a; D. Takahashi 2013; Ogata 2013). The revision extended the controllable farmland from the municipally-designated areas to all areas across the country (Harada 2018a).[262] Specifically, the 2009 ALA defined abandoned farmland as

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[260] The amendment strengthened the penalties for violation to a great extent by: 1) raising the upper limit of the fines for illegal conversion (e.g., from JPY3 million (USD 27,300) to JPY100 million (USD 910,800) in the case of corporations); 2) increasing the fines and imprisonment for violating order of *restitutio* in *integrum*; 3) conducting the administrative subrogation by the state or prefectural governor if the parties did not follow the order of *restitutio* in *integrum* for illegal conversion; 4) enabling Minister of MAFF to request for correction if local administrative processes for permission of farmland conversion were inappropriate; and 5) stiffening the standards of farmland categorization related to farmland conversion (D. Takahashi 2013; Ishigaki 2010; Takayoshi Hashimoto 2009).

[261] The amendment to the EAPR Act obliged the national and prefectural governments to set a goal to preserve farmland in areal terms, while tightening the conditions for exclusion of farmland from the 'Agricultural Land Zones' (*no-yochi kuiki*) where farmland diversion is disallowed in principle. With the amendment, Minister of MAFF must set a target of farmland area to be preserved in the Basic Direction of Farmland Preservation, and accordingly prefectural governors must set a target of farmland to be preserved within each prefecture in the Basic Direction for Establishing Agricultural Promotion Regions (*Nogyo-shinko chiiki seibi hoshin*) (D. Takahashi 2013). The amendment also added another condition (i.e., not to impede responsible farmers from aggregating farmland) to the previous conditions to exceptionally exclude farmland from 'Agricultural Land Zones,' although farmland within the Agricultural Land Zones designated by a municipal Plan for Establishing Agricultural Promotion Regions (i.e., superior agricultural land) is not allowed for farmland conversion in principle (D. Takahashi 2013; Takayoshi Hashimoto 2009; Ishigaki 2010). In addition, the amendment mandated the national or local government to consult with the prefectural governor when they initiate any developmental activities within the Agricultural Land Zones (D. Takahashi 2013).

[262] Previously the 2005 PIAMF Act stipulated the measures against farmland abandonment across the country, but such measures were undertaken as part of the Special Corporation Loan Program (*tokutei-hojin kashitsuke jigyo*) that only focused on the area with farmland to be promoted for agricultural use under the municipal Basic Concepts (*kihon-koso*) (Harada 2018a). The 2009 ALA amendment removed this limitation and expanded the scope of the measures to all areas including the area zoned for urbanization under the City Planning Act (Harada 2018a; Ogata 2013).

'idle cropland' (*yukyu nochi*) to be annually evaluated by the agricultural committees and to be more systematically addressed for improvement.[263] To ensure that the 'idle cropland' should be consistently handled and systematically resolved, the administrative power moved from municipal governments to agricultural committees.[264] Besides the surveys on cropland and its use, the 2009 ALA mandated the agricultural committees to consistently engage in the entire administrative procedures, including coordination with intermediary agencies of tenancy, to resolve idle cropland.[265] Despite the considerable improvement in the measures against farmland abandonment, concerns still remained about the feasibility and enforceability of the measures (D. Takahashi 2013).

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[263] The term 'idle cropland' (*yukyu nochi*) is a legal terminology defined in the 2009 ALA as the farmland consisting of two classes: 1) the cropland that is not currently used for cultivation but presumed to be continuously unused for cultivation (i.e., the first class); and 2) the cropland whose use in the agricultural terms is recognized as significantly inferior compared to cropland in the adjacent areas (i.e., the second class) (Harada 2018a). This classification is based on the 'usage survey' that is annually conducted by the agricultural committees to check up the location and status of cropland in their jurisdictions. In addition to this legal terminology, three other terms are referred to unproductive farmland as: 1) 'abandoned cultivated land' (*kosaku hoki-chi*) (i.e., the statistical terminology defined in the Census of Agriculture and Forestry as the land that was not cultivated over more than one year albeit previously cultivated and planned not to be cultivated for the next few years); 2) 'dilapidated farmland' (*kohai nochi*) (i.e., the term defined in the 'dilapidated farmland survey,' which the MAFF has delegated municipal governments to conduct since 2008, as the farmland that is not currently cultivated, resulting in the status under which crop cultivation is unable with normal farming practices) 3) 'non-farmland' (*hi-nochi*) (i.e., the term defined in the 'dilapidated farmland survey' as the land that was formerly farmland but judged by the agricultural committees as unable to recover).

[264] With the 2005 PIAMF Act, the municipal governments limitedly implemented the measures against farmland abandonment, as they issued neither notice nor admonition to owners of idle cropland though only provided guidance (Harada 2018a). Harada (2018a) points to the grounds for this limitation including: 1) the passive attitude of the public authorities to intervene in private property; 2) the limited area for which the municipal governments could take measures under the Special Corporation Loan Program; 3) the jurisdictions of the agricultural committees over which they might have be reluctant to appeal to mayors for issuance of notices; and 4) the modest tone of the stipulations for mayors to issue an admonition based on his or her discretion.

[265] With the amended ALA, based on the classification of 'idle cropland' through the 'usage survey,' the agricultural committees are to conduct a 'survey on owners' intention of use' to ask owners of (and others entitled to) idle cropland about their intention to take action for improvement. (Harada 2018a; D. Takahashi 2013). If this survey fails to identify an owner of idle cropland, the prefectural governors were authorized to pursue farmland transactions through the programs (e.g., FUAF program) upon a public notice by the agricultural committees — This was for the first time that the third party was authorized to forcefully make tenancy arrangements for abandoned farmland with unknown ownership (Harada 2018a; D. Takahashi 2013; Ogata 2013). Furthermore, the agricultural committees took over the responsibilities of municipal governments for individual and public notice and admonition about idle cropland, which were implemented under the Special Corporation Loan Program (Ogata 2013; Harada 2018a). By removing the limitation to the Special Corporation Loan Program, the 2009 ALA mandated the agricultural committees to consistently administer the processes, ranging from the guidance for appropriate farmland use, the individual and (if appropriate) public notices on idle cropland, the screening of use plans and the issuance of admonitions (if plans are inappropriately or not developed), the request for the governor's mediation in conflicts, to the notice of consultation with intermediary organizations (e.g., ALHR corporations, FUAF agencies). If anything beyond this scope, municipal or prefectural governments were authorized to implement administrative subrogation or correction order (by mayors) or adjudication for tenancy arrangements (by governors)(Harada 2018a; D. Takahashi 2013).

Community Agricultural Master Plan (CAMP) Program in 2012

Under the regime of the Democratic Party of Japan (DPJ), the government introduced the Community Agricultural Master Plan (CAMP) program in 2012 to facilitate farmland aggregation and consolidation (Harada 2017b; Shogenji 2012a). This scheme had no legal basis and thus no binding power, but assumed social movements to advance structural policy at the local level (Harada 2017b; Ando 2013). The scheme stemmed from the initiative by the Japan Agricultural Cooperatives (JA) to provide a long-term view of farmland use in reaction to the 2009 ALA amendment (N. Taniguchi 2013). Despite the temporal languishing with the regime change, the JA made a proposal for agricultural rehabilitation in May 2011 to overcome adverse socio-economic and political effects on agriculture.[266] This proposal involved the prototypical concept of the CAMP scheme to develop 'responsible farmers' (*ninaite*) with a farm scale of 20-30 ha in flat regions and 10-20 ha in hilly and mountainous regions at the 'village' level (N. Taniguchi 2013). This concept was taken up in the 2011 Basic Action Plan (October 2011) which the DPJ government developed in parallel with the JA's initiative to tailor the farming sector to the high-level economic partnership.[267] Based on the 2011 Basic Action Plan, the MAFF

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[266] In reaction to the 2009 ALA amendment, the JA's national peak organization (JA-*Zenchu*) brought up the Long-Term Vision of Farmland Use in July 2009 as a JA' local agricultural policy under the LDP regime (N. Taniguchi 2013). With the ensuing regime change to the DPJ government, however, it shelved the vision for the time being but revived it with updates in May 2011 in response to the changes ranging from the Prime Minister Kan's announcement about TPP negotiations in October 2010 to the so-called '3/11' disasters following the Great East Japan earthquake, tsunami and nuclear incident in 2011.

[267] Following the Prime Minister Kan's announcement in October 2010 to consider Japan's participation in the TPP negotiations, the DPJ government deliberated the 'Basic Direction for Revitalization of Food and Agriculture, Forestry and Fisheries' (hereafter called 'Basic Direction') at the Council to Promote the Revitalization of Food, Agriculture, Forestry, and Fisheries (CPRFAFF) advisory to the Headquarters for the Revitalization of Food, Agriculture, Forestry and Fisheries (HRFAFF) at the Cabinet with an aim to simultaneously pursue the reform of agricultural structure and the participation in TPP (Shogenji 2013; N. Taniguchi 2013; Manabu Sawada 2014). The concept in the JA's proposal was first taken up as a local agricultural master plan (*chiiki nogyo* master plan, which was renamed CAMP in January 2012) in the interim proposal from the CPRFAFF in August 2011, and then went through the budgetary request from the MAFF within a month to be adopted by the HRFAFF in 'The Basic Policy and Action Plan for the Revitalization of Japan's Food, Agriculture, Forestry and Fisheries' (i.e., the 2011 Basic Action Plan) in October 2011(N. Taniguchi 2013; Shogenji 2012b).

announced the policy in December 2011 to develop CAMPs across all the concerned municipalities in the next two years with a goal to materialize the agrarian structure in the next five years where farmland aggregated to 'responsible farmers' will account for 80% of the entire farmland (cf., approximately 30% as of 2011).[268]

The CAMP program was designed as a municipal planning procedure by which a municipal government was to develop CAMPs in certain areas within its jurisdiction (e.g., farming villages) based on in-depth, local-level dialogues (N. Taniguchi 2013). Local actors were to discuss where and how to aggregate farmland by 'voluntarily' classifying themselves into three types: 1) 'central management entities' (*chushin-keieitai*) (e.g., individuals, corporations, and village-based farming organizations) who would be responsible for local agriculture, 2) farmers who would lend their farmland to the central management entities, and 3) the remaining farmers (Harada 2017b; N. Taniguchi 2013; MAFF 2012a). The territorial boundary of each CAMP was 'flexibly' determined depending on local conditions, whereby municipal governments were encouraged to regularly review the plans.[269] Each CAMP was adaptable to the local situation, but was to include three components: central management entities, farmland aggregation, and future local agriculture. With the patterned forms and manual given by the MAFF, however, most municipal governments followed the nationally-designed formats (N.

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[268] Following the 2011 Basic Action Plan, the MAFF elaborated the policy in December 2011 to realize sustainable and strong agriculture by resolving the problems of agricultural population and land in an integrated manner. This policy provided specific means to the CAMP program, including: 1) to develop CAMPs in the next two years across all the municipalities containing all the farming villages concerned of population and farmland; 2) to promote farmland aggregation so that the farmland managed by responsible farmers will account for 80% of the entire cultivated land (*kochi-menseki*) for land-extensive farming in the next five years (c.f., approximately 30% as of 2011) (Koike 2013; N. Taniguchi 2013).

[269] Ando (2013) points out that the flexible approach to bounding the planning area is different from the previous bottom-up approaches to the structural improvement. He suggests that the policy was informed on the recent situation where the scale expansion of 'central management entities' largely progressed in flat regions and extended across several farming villages, but the territorial scope of farmland aggregation varied across different regions.

Taniguchi 2013). In addition, a municipal commission involving local representatives (e.g., village-based farming organizations, large farms, incorporated farms, female farmers) was to screen the plans, but a municipal government would make the final decision (N. Taniguchi 2013).

To facilitate farmland aggregation and consolidation, the CAMP program was tied to subsidiary programs to provide economic incentives for both owners and users.[270] Users could receive the subsidies only when they were defined as central management entities in the CAMPs.[271] Owners or lenders of farmland were eligible for the funds only when they contributed to farmland aggregation to central management entities.[272] Both owners and users

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[270] The CAMP program was tied with three types of subsidies: 1) the benefits for junior starters (i.e., income subsidies for junior farmers who started farming); 2) the funds for collaboration on farmland aggregation (i.e., subsidies for contributors to farmland aggregation); and 3) the funds for improvement of agricultural management foundation (i.e., interest payment relief for certified farmers to make agricultural investment) (N. Taniguchi 2013). In particular, the second program adopted the owner-incentive approach to 'expediting' farmland aggregation, which was different from the previous programs to facilitate farmland aggregation, except for the Agricultural Land Use Promotion (ALUP) Program (1975) (N. Taniguchi 2013). In the ALUP Program, lenders were eligible for the funds upon their tenancy contracts (i.e., JPY 20,000 per 0.1ha in the case of tenancy contracts for over 6 years, and JPY 10,000 per 0.1ha in the case of those for 3-5 years) (Y. Sato 1989a).

[271] Farmland users who were listed in the CAMPs were eligible for all the aforementioned three types of subsidies. For the benefits for junior starters, junior farmers were eligible to receive income subsidies (i.e., JPY1.5million annually, equivalent to approximately UDS13,660) annually for the first 5 years at a maximum after they started farm management, if they were defined as 'central management entities in the CAMPs (N. Taniguchi 2013). For the funds for collaboration on farmland aggregation, farmers engaging in major cropping (e.g., rice, wheat, soybean) were eligible for the bonus of scale expansion (i.e., JPY20,000 per 0.1ha, equivalent to approximately USD182) upon their expansion of cultivating farmland with relaxed requirements, if they were 'central management entities' of the area where they planned to enlarge their cultivating farmland (N. Taniguchi 2013). This bonus system for scale expansion started in fiscal 2011 as part of the income support system for individuals (Yamashita K. 2010), while it originated from the Farmland Use Accumulation Facilitation (FUAF) Program that began in fiscal 2010 (Yaguchi 2012). As such, the bonus was applicable only to the farmland transactions that were made under the FUAF program that required owners to agree on 'unconditional' transactions (Yaguchi 2012; Shogenji 2012a). For the funds for improvement of agricultural management foundation, certified farmers who were listed in the CAMPs were eligible for the interest payment relief of the loan for agricultural investment for the first 5 years (N. Taniguchi 2013).

[272] The funds for collaboration on farmland aggregation involved two types of funds for lenders: 1) the collaboration funds to reorganize management; and 2) the collaboration funds to resolve farmland fragmentation (N. Taniguchi 2013; Shogenji 2012a). For the former, lenders who contributed their farmland to aggregation to 'central management entities' in the CAMPs (i.e., farmers who reorganized farm management from land-extensive farming to other types of farming, retired farmers, heirs entitled to farmland) were eligible for the funds. The municipal governments were authorized to decide the amounts and provide the funds through the subsidies from the national government based on the reference standards (i.e., JPY 300,000 per household for the area less than 0.5ha, JPY 500,000 per household for the area of 0.5-2.0ha, and JPY 700,000 per household for the area over 2.0ha). For the latter, the lenders who contributed their farmland to consolidation for efficient farm management of 'central management entities' were eligible for the funds. Similarly to the former, the municipal governments were authorized to decide the amounts and provide the funds based on the reference standards (i.e., JPY 5,000 per 0.1ha). For either of these funds, lenders were eligible if they agreed on 'unconditional' tenancy contracts for over 10 years under either the FUAF Program or the ALHR program (MAFF 2013a; Shogenji 2012a).

were incentivized to contribute not only to farmland aggregation but also to consolidation. For the funds for farmland aggregation, users (i.e., central management entities) were eligible only for farmland transactions under the FUAF program, while lenders were eligible only for the 'unconditional' tenancy contracts for over 10 years under either FUAF or ALHR programs (Yaguchi 2012; Shogenji 2012a; MAFF 2013a). Given the authority of FUAF (or ALHR) agencies to grant use rights for users without owners' consent, these agencies could make tenancy arrangements in a more consolidated form (Shogenji 2012a). With these subsidiary opportunities, over 95% of the municipal governments nationwide developed the plans by the end of 2014.[273]

By design, the CAMP program took both 'selective' and 'inclusive' approaches to planning, extending the former LDP agricultural policy to a slightly new DPJ policy. On the one hand, it continued the structural policy developed under the LDP regime as featured in the economic incentives for 'selective' farmland aggregation to competitive farmers.[274] This was because the DPJ regime made no change to the New Basic Act (1999), an anchor of agricultural policy, but rather changed the whole ball game upon its announcement to consider the participation in TPP negotiations.[275] On the other, it involved new features that allowed for

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[273] The share of the municipalities that developed the CAMPs quickly increased for the first two years from 56% (876) in March 2013, to 90% (1,416) in March 2014 (MAFF 2018j).

[274] For instance, the economic incentives were designed to expedite farmland aggregation selectively to 'efficient and stable farm management entities' that were stipulated in the New Basic Act (1999) (N. Taniguchi 2013). This mechanism was seen to pursue the structural policy that dates back to New Basic Policy (1992) (Koike 2013). Also, the municipal program implementation to leverage local communities was the conventional approach to farmland liquidation, which dates back to the Agricultural Land Use Improvement (ALUI) Program (*Noyo-chi riyo-kaizen jigyo*) (Ando 2013).

[275] The DPJ regime revised and introduced a few policies and plans that accorded with its manifesto to sustain agriculture and farming environment with involvement of small farm households (e.g., the 2010 New Basic Plan, the income support system for individuals), but did not revise the New Basic Act (1999) (N. Taniguchi 2013; Shogenji 2012a). Instead, as elaborated in the 2011 Basic Action Plan, it increasingly developed policies in favor of larger farmers for agricultural competitiveness in consideration of TPP negotiations (N. Taniguchi 2013; Shogenji 2012a; Shogenji 2013).

'inclusive' local discretion on territorial boundaries and actors. This was partly because of the practical needs to accord with the increased diversity of local farming situations. But it might have been also affected by the regime change to take advantage of local-community initiatives inclusive of various actors rather than municipal administrative management.[276]

Yet, the 'selective' and 'inclusive' approaches (i.e., voluntary 'selection' based on 'inclusive' dialogues in local communities) are intrinsically contradictory and have been a longstanding challenge to the agricultural structural policy (Ando 2013; N. Taniguchi 2013). Thus, Ando (2013, 43) points out that it is infeasible to promote a 'kinematic policy' like the CAMP program by means of governmental subsidies, nationally-designed scheme and formats, and administrative leadership to motivate local communities to act as politically intended.

Farmland Bank (FB) Program in 2014

The FB program began in March 2014 to expedite farmland aggregation and consolidation with the FB Act (enacted in December 2013). It was put in place as a key measure of the MAFF's 'Four Reforms' (December 2013) to promote the Japan Revitalization Strategy with a specific goal to attain the Key Performance Indicator (KPI) (i.e., 80% farmland aggregation rate by

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[276] Besides the increased difficulty to uniformly define the areal boundaries due to the different levels of progress in farmland aggregation across farming villages, the government designed the flexible boundaries with an intention to develop the plan in accordance with local conditions based local dialogues (Ando 2013). Also, Ando (2013) points to the distinction between 'central management entities' (*chushin keieitai*) and 'certified farmers' (*nintei nogyosha*) in terms of the different logics of agrarian structural improvement: the former were to be 'voluntarily' and 'locally' identified on their specific territorial base and defined in the CAMPs, while the latter were to be defined and approved by municipal governments regardless of their belonging to a certain area within a municipality. Both of them were part of the agrarian structural policy that employed a 'selective' approach to restructuring. However, the former was more similar to the approach based on the self-governing capacity of local communities, which was employed under the ALUP Act (1980), while the latter was extended from the approach to competition for efficient and stable farm management within a municipal framework, which was adopted under the PIAMF Act (1993).

2023).[277] Stemming from the proposal by the MAFF in February 2013, the concept of the FB program underwent a two-stage transformation prior to the enactment of the FB Act. First in the process of drafting the bill, the MAFF's proposal radically changed through the intervention from the aforementioned two councils (i.e., CIC and RRC). The rule of farmland redistribution was changed from local-priority to free and open competition. Second at the Diet deliberations, the bill was amended to extend, but limitedly, the role of local actors in program implementation.

At the first stage, the MAFF's proposal was revised mainly in three fronts: 1) limit of local interference, 2) focus on competitiveness, and 3) multi-level control. First, the proposal included several components to ensure that local actors (e.g., local farmers, agricultural committees) should participate in program implementation, for instance by building on the CAMP program for farmland redistribution through FBs.[278] In response to the two councils' concern about local interference in new entries, all these elements were omitted in the bill (Harada 2015). Second, the proposal addressed both farmland abandonment and aggregation with the amendment to the PIAMF Act. Yet, to accord with the interest in free and open competition with access to superior farmland, the bill promoted new entries through public

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[277] Following the establishment of the FB Act in December 2013, the MAFF declared the 'Four Reforms' in December 2013 to promote 'competitive agriculture, forestry and fisheries' (*seme-no norin-suisan-gyo*), in which it upheld the creation of FBs as a top priority of the reforms (Harada 2015; Yokoyama 2015; MAFF 2013b). The 'Four Reforms' detailed two of the 'Four Pillars' of the agricultural ground design, called the Plan of Creation of Regional Vitality in Agriculture, Forestry and Fisheries, which was developed and decided at the Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries (HCRVAFF) within the Cabinet in December 2013 (Yokoyama 2015). This ground design built on the Japan Revitalization Strategy, which was developed as the growth strategy of Abenomics under the Headquarters for Japan's Economic Revitalization (HJER) and decided at the Cabinet in June 2013 (Yokoyama 2015). As in this national revitalization strategy, the ground design specified the FB program as a key measure for one of the four pillars (i.e., strengthening the production base) (Yokoyama 2015; Kobari 2014). As such, the FB program was positioned in the sequence from the national revitalization strategy to the agricultural ground design, and then to the MAFF's Four Reforms under the leadership of the OPM (Yokoyama 2015). As specified in the national revitalization strategy, the MAFF was mandated to attain the KPI that the share of farmland used by responsible entities should increase to 80% (cf., 50% in 2013), in which the FB program was expected to play a key role (Ando 2016).

[278] The proposal from the MAFF included several elements to ensure that local actors participate in program implementation through: 1) the establishment of the governing system where a multi-stakeholder committee consisting of local representatives steers the management of a FB; 2) the legalization of the CAMP program, with which FB's farmland redistribution plans build on CAMPs so that FBs openly seek farmland users only when local farmers are absent; and 3) the involvement of the agricultural committees in the farmland redistribution planning (Kobari 2014; Harada 2015).

recruitment of farmers and prevented FBs from holding abandoned or inferior farmland.[279] Third, new elements were added to the proposal: giving more power to prefectural authorities under the state supervision for program implementation.[280] With this addition, the notion of farmland changed from production goods to be administered by quasi-government agencies (i.e., FBs) to those to be governed by government authorities in the manner of the state-prefectural ladder (Harada 2015).

At the second stage, the changes were made through the legislation process, making room for local coordination in the FB scheme. Following the criticism from bipartisan legislators and unsworn witnesses who were concerned with its feasibility without involvement of local actors, the Diet deliberations resulted in the addition of a new article (Article 26) together with 15 collateral resolutions to the bill.[281] These additions gave an important role to the CAMP program as a basis of the FB program implementation so as to coordinate with local agriculture and the existing farmers. It also allowed agricultural committees to intervene in farmland distribution planning. Yet, different from the conventional agricultural land systems (e.g., the ALA and the

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[279] To promote nationwide free and fair competition and take advantage of access to superior farmland, the two councils called for changes in the MAFF's proposal, for instance, to explicitly promote new entries, to treat outsider or new farmers the same as local ones on a fair basis, to publicly seek farmers and determine tenants based on the FBs' tenancy rules, and to avoid risks in holding unfavorable farmland (e.g., abandoned farmland) at FBs (Harada 2015). With the changes to meet these requests, the bill was submitted as a new act in the judgement of Cabinet Legislation Bureau (Kobari 2014).

[280] The two councils requested the addition of several new measures to the MAFF's proposal, including those to strengthen the power of prefectural governors in overseeing program implementation, to establish an independent committee at each FB to neutrally evaluate program implementation, and to indicate the roles and responsibilities of the national government in monitoring program implementation, and if needed, request prefectural governments for correction or improvement (Harada 2015).

[281] During the Diet deliberations, legislators and unsworn witnesses expressed their concerns of the bill mainly in the following respects: 1) a lack of mechanism and conditions to consort with local agriculture and consult with local stakeholders; 2) a lack of attention to sufficient management capacities (e.g., human resources, organizational systems) to promote farmland aggregation; 3) an importance of building trust among local stakeholders to introduce a new policy; and 4) the excessive intervention by the two councils in policy-making process (Kobari 2014). Harada (2015) suggests that this criticism built on not only the backlash against the OPM-led agricultural policy-making but also the existing demand from local actors for an intermediary mechanism to aggregate farmland. The MAFF acknowledged the expectations from local actors, which were heard in the implementation process of the CAMP program, that a trustable intermediary organization would resolve the farmland problems (Harada 2015). Such local expectations were also noticed among the policy-makers and scholars (Harada 2015).

PIAMF Act), the FB Act minimized the role of local actors.[282] Despite the additional article, the FB Act streamlined and advanced farmland use for better agricultural productivity (Article 1). It also gave more power to prefectural governments than municipal ones to control farmland redistribution.[283] This new legislation granted power to the prefectural authorities to publicly recruit capable farmers as users and redistribute farmland to them free from owners' interest and without permission from the agricultural committees (Kobari 2014).[284]

With this legal basis, FBs were established at all the 47 prefectures nationwide to mediate tenancy arrangements through the systematic separation between owners and users for farmland aggregation and consolidation.[285] By design, the FBs serve as a semi-public intermediary agency to lease farmland from owners, if needed, improve it, and sublet it to 'responsible farmers' in a consolidated form (see Figure 3.2). In most cases, it leverages the two-level scheme for implementation; aggregating farmland at the municipal level, and redistributing it at the prefectural level. This scheme involves five steps: 1) the assessment of local status of farmland and farmers (municipal); 2) the public recruitment of users (prefectural); 3) the receipt of

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[282] The ALA stipulates as one of its purposes to 'promote the acquisition of rights to cropland by cultivators who make efficient use of cropland while taking into consideration harmony with local areas' (Article 1). The system of use-rights setting under the PIAMF Act also builds on the concept of the 'autonomous farmland management' that the coordination among landowners as a local group most appropriately facilitates effective farmland use (Sekiya 2002).

[283] Differently from the preceding programs where the agencies at the municipal level were in charge of farmland redistribution (e.g., the ALUP, PIAMF and FUAF Programs), the FB Act authorized the prefectural authorities to sublet farmland for farmland aggregation (Kobari 2015).

[284] To authorize FBs to sublet farmland on behalf of owners irrespective of their wills, the FB Act permits exemption from the application of the Civic Code (Articles 621.1 and 594.2) and grants the FBs an 'interim management right' (*nochi-chukan kanri ken*) that involves freedom of sublet to make tenancy arrangements. For tenancy contracts, FBs can acquire either 'leasehold rights' based on the ALA or 'use rights' based on the PIAMF Act (Harada 2017b). With this legal basis, FBs can place new or outsider users, who do not have a trust relationship with owners but have economic capacity of farm management, on 'equal footing' with local farmers for access to superior farmland (Ando 2017a).

[285] FBs were established in all 47 prefectures by November 2014 (MAFF 2014c; Harada 2017b; Ando 2017a). For the FB program, many of the prefecture renovated the public corporations that used to serve as the ALHR corporations under the ALHR program (Harada 2015; Harada 2017b).

owners' applications for the program (municipal); 4) the matchmaking between owners and users (municipal); and 5) the approval and public notice of farmland redistribution plans (prefectural).[286] Except for those related to the public recruitment of users (i.e., the third step) and the decision of farmland redistribution plans (i.e., the fifth sep), FBs can delegate the tasks to qualified agencies at the municipal level (e.g., municipal governments, agricultural cooperatives, agricultural committees, FUAF agencies).[287] In practice, many FBs have delegated most of the tasks to those municipal agencies, particularly the tasks for local coordination between owners and users (Kobari 2015).

[286] More specifically these steps include the following procedures (Kobari 2015). First, municipal governments assess local status of farmland and farmers through the CAMP program and other means and then share the information with FBs. Second, FBs publicly seek farmland users and officially announce the interested parties and their expectations. Third, municipal governments or other qualified agencies receive owners' applications for the program if the applications meet the conditions provided by FBs (e.g., farmland quality attractable for users), and then municipal governments make tenancy arrangements between owners and FBs through public notice of farmland aggregation plans. Fourth, municipal governments or other qualified agencies identify users from the FBs' list of the interested parties and make a match based on the sublet rules provided by the FBs. However, FBs can change users (i.e., subtenants) without owners' consent, given their 'interim management right' to farmland which is granted to FBs. In addition, based on the matchmaking, municipal governments often draft farmland redistribution plans. Fifth, FBs develop farmland redistribution plans mostly based on the municipal draft, and then governors endorse and publicly announce the plans to sublet farmland to users.

[287] Although the agencies that have conventionally engaged in tenancy arrangements at the municipal level (e.g., municipal governments, agricultural cooperatives, agricultural committees, FUAF agencies) are qualified to be entrusted with the tasks for the groundwork of the FB program, only municipal governments are authorized to engage in drafting farmland redistribution plans (Kobari 2015).

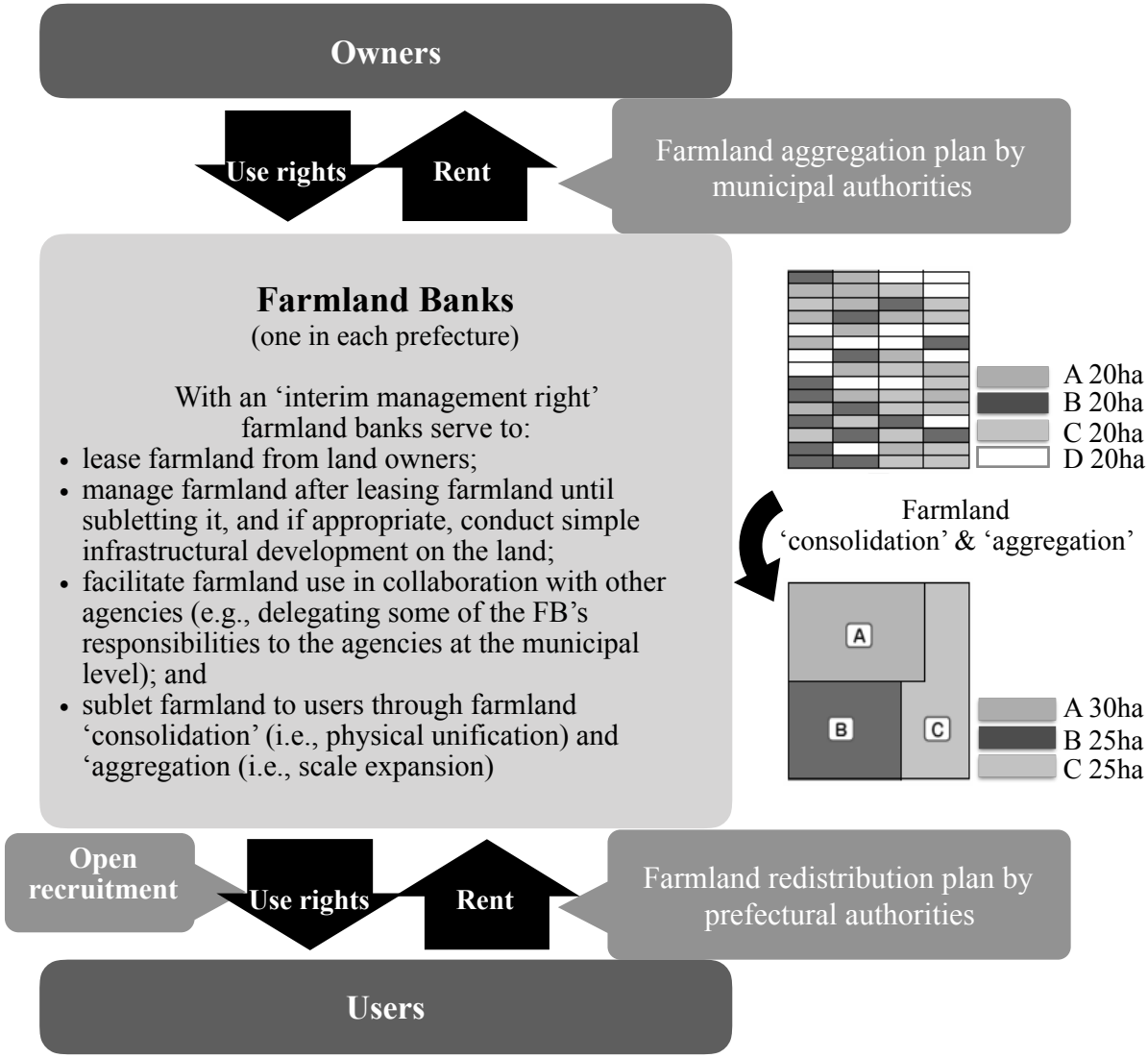

Figure 3.2 Farmland Banking Scheme

Note: adopted from MAFF (2014b) and Kobari (2015).

To implement the program, the national government prepared a massive amount of budget especially for the first fiscal year of 2014 to be used for the subsidies to owners and local communities, the administration of the FBs and the farmland data management.[288] Differently from the CAMP program, the FB program was associated with the subsidies for owners and local communities (i.e., individual or collective lenders), but not for users (i.e., subtenants).[289] Lenders were eligible for the funds primarily subject to the tenancy arrangements with FBs on the farmland designated within the area defined in the CAMPs to promote both farmland aggregation and consolidation.[290] The funds for individual lenders were applicable only upon the conclusion of sublet contracts between FBs and subtenants (Harada 2015).[291] This aimed to avoid the risks of keeping farmland at FBs for long (e.g., an increase in management cost), but may prevent owners from lending their land to FBs until they can identify available subtenants

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[288] The program budge for fiscal 2014, including the supplemental budget for fiscal 2013, amounted to JPY70.5 billion (approximately USD643 million). This consisted of three components: 1) the funds for contributors to farmland aggregation (i.e., subsidies for owners and local communities) (JPY25.3 billion); 2) the subsidies for the administration of the FBs (JPY31.4 billion); and 3) the subsidies for the management of farmland data (JPY13.8 billion) (Ando 2014). The amount was much larger than that of the previous programs for farmland aggregation and consolidation (Kobari 2015).

[289] The focus on the economic incentives for owners was presumed to be a prompt and available means to expedite farmland aggregation. As a reason for the absence of economic incentives for users, the MAFF explained that users could take advantage of farmland consolidation from the FB program (Harada 2015; Ando 2014; Tsuyoshi Watanabe 2014).

[290] Exceptionally owners (or heirs) of farmland were still eligible for the collaboration funds on management reorganization even without a tenancy contract with a FB if they made a farming contract on their land with an ‘unincorporated’ village-based farming organization as its member for the period over 10 years (Harada 2015; Ando 2014; Tsuyoshi Watanabe 2014). This was because FBs could not make a tenancy contract to sublet farmland to an unincorporated organization, but with this funding they could contribute to farmland aggregation to village-based farming organizations that may be incorporated in future (Harada 2015; Tsuyoshi Watanabe 2014).

[291] The FB program was tied with three types of subsidies, collectively called the funds for collaboration on farmland aggregation, including: 1) the collaboration fund on management reorganization; 2) the collaboration fund on farmland aggregation to cultivators; and 3) the collaboration funds on farmland aggregation to local communities (MAFF 2018d; MAFF 2018e). The first two types were applicable for individual lenders, whereas the third was for collective lenders. For the first type, owners or heirs of farmland were eligible when they lent their entire farmland (except 0.1ha of reserved land for their own farming) to FBs for the period over 10 years upon their farm retirement or management reorganization (from land-extensive farming to other types of farming) (Harada 2015). For the second one, owners or cultivators were eligible when they lent their owned or cultivating farmland adjacent to the land which was already leased by FBs, to FBs for the period over 10 years so as to contribute to farmland consolidation and aggregation (Harada 2015).

and thus limit the FBs' function of intermediately pooling farmland for aggregation and consolidation (Harada 2015).

The funds for collective lenders to be used for local agricultural development were applicable not necessarily based on the conclusion of sublet contracts, but depending on percentage of the area of farmland leased to FBs within a certain geographical area: the larger percentage, the higher unit values of funds were applicable.[292] This condition aimed to facilitate farmland aggregation in a consolidated form in an extended area (Harada 2015). To faster attain desirable program performance, the national government offered special bonus to some of the funds particularly for the first two fiscal years.[293]

The primary goal of the FB program was to achieve the Key Performance Index (KPI): 80% share of farmland to be used by 'responsible farmers' (i.e., farmland aggregation rate) by 2023. To attain this goal, the national government set the target to increase farmland aggregation annually by 150 thousand ha (Ando 2017a). To monitor the progress, it has measured the program performance at each prefecture with the 'FB's contribution ratio' and ranked the

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[292] For the collaboration funds on farmland aggregation to local communities, the local community in a certain area corresponding to or within the area defined by the CAMPs were eligible when the farmland with a total area above certain percentages of the entire farmland in the community (at least over 20%) was leased out to FBs (neither subject to a contract life period, nor whether the farmland was leased out to a subtenant) (Harada 2015). The amount of the fund was calculated based on the unit values per 0.1ha depending on the three levels of the share of leased farmland (Harada 2015). A recipient of the funds for individual lenders could also benefit from the fund for collective lenders, given the different purposes and eligibles (Harada 2015).

[293] The faster the eligibles lent their land to FBs, the more amounts were applicable for them for two of the three types of funds under the FB program: 1) the collaboration funds on farmland aggregation to local communities; and 2) the collaboration fund on farmland aggregation to cultivators. For the former, for the first two fiscal years (fiscal 2014 and 2015), the unit values per 0.1ha were JPY 20,000 if the share was more than 20% but less than 50%, JPY 28,000 if it was more than 50% but less than 80%, and JPY 36,000 if it was over 80% (MAFF 2018d). These values were twice as much as the basic unit values that were used from fiscal 2018, while the values for fiscal 2016 and 2017 were one-and-a-half times as high as the basic ones. For the latter, for the first two fiscal years, the unit values per 0.1ha was JPY 20,000, which was four times as much as the basic unit of fiscal 2018 onward (MAFF 2018d).

prefectures relative to this ratio for public disclosure every year.[294] In addition, it started in 2016 to reflect the ranking results on the budget allocation for prefectures to provide more budget for the higher rankings.[295]

This ranking-based budgeting has incentivized some prefectures, but does not precisely account for the progress. The calculation of ranking did not take into consideration farmland aggregation through other means than FBs, while it ignored how farmland aggregation contributed to consolidation (Kobari 2015).[296] Furthermore, prefectural governments have discretionary power to make subsidiary rules within their budgetary limits (Harada 2015). They were expected to distribute funds for best possible effects. With the lax guidelines from the national government, however, some prefectures took ready-made means to provide funds in the interest of the ranking-based budget procurement (M. Akiyama 2015).[297] For the first two fiscal

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[294] The 'FB's contribution ratio' is a ratio of the annual increase in a total area of farmland which is aggregated through the FB program to the annual target of farmland aggregation at each prefecture
(Kobari 2015). The annual target of farmland aggregation = [the target of farmland aggregation for 10 years]/ 10 years (MAFF 2018d). The target of farmland aggregation (for 10 years) = [the area size of cultivated land in 2013] x [the higher value of either of the followings: 1) the farmland aggregation rate in March 2014 x 2.5 (not more than 95% in Hokkaido and 90% in other prefectures); or 2) the target rate of farmland aggregation defined in the Basic Policy for Promotion of Improvement of Agricultural Management Foundation under the PIAMF Act (Article 5)].

[295] Based on the evaluation of the program implementation for the first fiscal year (fiscal 2014), the MAFF decided in 2015 to start the ranking system for progress monitoring at each prefecture and to develop the system to reflect the ranking results on budget allocation (Kobari 2015; MAFF 2015a). Then, based on the evaluation for the second fiscal year (fiscal 2015), the MAFF officially announced the policy in 2016 to allocate budget to prefectural governments in accordance with the progress of the FB program for the first two fiscal years (MAFF 2016f; National Agricultural News 2016). Based on the evaluations for the first two fiscal years, it also developed the budgetary policy to secure funds to support land improvement projects in combination with the FB program (MAFF 2015a; MAFF 2016f).

[296] In addition, Ueda (2017) points out that the ranking system does not take into account the regional diversity given the calculation of the numerical target of farmland aggregation that is largely standardized uniformly across the country. He points to the distinction between land-extensive farming and labor-intensive one: the former particularly in the region with favorable conditions (e.g., rice farming in flat regions) can take more advantage of farmland aggregation to reduce production cost, whereas the latter benefits less from farmland aggregation.

[297] For instance, the guidelines provided by the MAFF confirmed that recipients of the funds under the past programs on tenancy arrangements (e.g., the FUAF program) could benefit from the two types of funds under the FB program (i.e., the collaboration fund on farmland aggregation to cultivators, the collaboration funds on farmland aggregation to local communities) if the tenancy contracts were made with FBs upon the termination of the existing contracts by consent (Ando 2014, 2016). Also, the same guidelines confirmed that the eligibles could be given the funds for collective lenders even without a return of the previous funds from the past programs (Ando 2014, 2016).

years, for instance, prefectural governments were allowed to provide funds for collective lenders who terminated by consent the existing tenancy contracts between lenders and village-based farming organizations and then remade tenancy through FBs even without any additional farmland aggregation, though the national guidelines later disallowed such nominal changes.[298]

The FB program made progress but was still far from the KPI goal. The farmland aggregation rate increased from 48.7% (2.2 million ha) in 2013 to 55.2% (2.5 million ha) in 2018, but failed to keep up with the annual target until 2018 (MAFF 2018d).[299] The FBs' contribution to the annual target continued to be less than 20%, while that to the actual new aggregation remained below half.[300] The FB program was adopted dominantly in local tenancy arrangements particularly for farmland aggregation to either village-based farming organizations or individual certified farmers in the context of land-extensive farming (Ueda 2017; Ando

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[298] Despite the budget limits, it was technically possible for prefectural governments to offer the funds for collective lenders who terminated by consent the existing direct tenancy contracts between lenders and village-based farming organizations and then remade tenancy contracts through FBs even without any additional aggregation but only with paperworks (Ando 2014, 2016). In this case, the authorities could give subsidiary opportunities for any initiatives of village-based farming on a non-discriminatory basis regardless of the timing of their establishment (Ando 2014). In addition, according to my interview with a national official (January 20, 2016), the quintessence of the FB program is to hedge the risks of direct tenancy contracts between owners and users where owners without farming capacity might have no choice but to abandon farmland if users return farmland to owners. Thus, the involvement of a FB as a counterpart of tenancy contracts even without any other change may reduce future risks of farmland abandonment. With concern of the budgetary limitations versus the effects on farmland aggregation, however, the national government changed the guidelines to determine the funding amounts based on the area of additional farmland aggregation and not to provide the funds for nominal changes in tenancy contracts without any additional aggregation from fiscal 2016 (Ando 2016; Harada 2015; Tsubaki 2017).

[299] The farmland aggregation rate increased more rapidly after the launch of the FB program in 2014 compared to the trend between 2010 and 2013 (MAFF 2016c, 2018d). Compared to the annual target of an increase in farmland aggregation (149,210 ha), however, the additional aggregation was in the range between 40,000-80,000ha between fiscal 2014 and 2017 (Ando 2017a; MAFF 2015b, 2016g, 2017g, 2018d).

[300] Over the past four fiscal years between 2014 and 2017, the rate of the FBs' contribution to the annual target of farmland aggregation slowed down in the past two years, peaking at 18% for fiscal 2015 (13% for fiscal 206 and 12% for fiscal 2017) (MAFF 2015b, 2016g, 2017g, 2018d). The rate of the FBs' contribution to the actual annual aggregation greatly increased for the first two fiscal years (11.7% for fiscal 2014 and 33.5% for fiscal 2015) but somewhat slowed down (30.9% for fiscal 2016 and 42.0% for fiscal 2017).

2017a).[301] The entry of general corporations increased after the amendment to the ALA in 2009 but was still limited.[302]

Based on the progress of the five-year implementation, the MAFF reviewed the FB program and revised the policy in November 2018.[303] Among others, it aimed to address three issues for improvement: 1) more substantial linkage between the CAMP and FB programs; 2) better coordination with the FUAF program; and 3) reduction of administration cost and time for the FB program implementation (MAFF 2018k; JAcom 2018b).[304]

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[301] Based on the progress in the first two fiscal years, Ando (2017a) suggests that the program adoption progressed largely in two cases where: 1) village-based farming had been progressively promoted; and 2) farmland aggregation had been relatively delayed due to a relatively large number of responsible farmers. Drawing on his interview surveys, he also suggests that the FB program adoption largely built on the previous efforts that the local agencies had made in promoting farmland aggregation through preceding programs (e.g., the CAMP program, the FUAF program).

[302] After the amendment to the ALA in 2009, the number of general corporations that entered in farm management through tenancy grew five times as fast as in the past years between 2003 and 2009 (MAFF 2018l). However, the area of the farmland leased by general corporations was very limited (e.g., 0.2% in 2017) (MAFF 2018l; MAFF 2018f). After the removal of areal restriction of entries of general corporations upon the 2009 ALA amendment, the entries increased particularly in the suburbs of the large metropolitan areas with favorable business conditions in terms of the size and accessibility of market, the logistics, and the agglomeration of enterprises (Muroya 2015). In terms of the share of the farmland that FBs sublet to entries (in either an individual or corporation form), it was 8.9% for fiscal 2017 in areal terms (MAFF 2018d).

[303] The FB Act mandates the national government to review the FB program and relevant programs after five years of enforcement and, if needed, to take appropriate measures (Article 2 of Supplementary Provisions).

[304] Several studies also point to the obstacles of the FB program implementation mainly in two respects: 1) the considerable administrative cost and time; and 2) the inadequate coordination with the existing tenancy mechanisms. First, tenancy arrangements involved large administrative burden not only on administrative agencies but also on subtenants. Subtenants can be granted use-rights only after a governor endorsed a farmland redistribution plan that is prepared after the municipal public notice of a farmland aggregation plan (Kobari 2015). They must also annually report the status of farmland use to FBs, including all the details such as area sizes, crop types, and yields (the FB Act Article 21) (Ando 2017a). FBs must collect and check all these reports from subtenants as well as the documents related to the two different types of plans (i.e., farmland aggregation plans and redistribution plans) as stipulated in the FB Act (Ando 2017a). As most FBs delegate many tasks to municipal agencies, FBs sometimes could not actively promote the program in consideration of the human resources at municipal agencies (Kobari 2015). Second, despite the budgetary focus on the FB program, there was little systematic coordination between different mechanisms to support and facilitate tenancy arrangements under three laws (i.e., the ALA, the PIAMF Act, and the FB Act) (Kobari 2015). The FB program was developed in haste and began soon after the launch of the FUAF Program (Kobari 2015). This relatively abrupt change gave local agencies (both at municipal and prefectural levels) the challenges to adapt to the new program with precise understanding, while not necessarily taking advantage of the previous efforts made by local agencies (e.g., agricultural cooperatives) through the other programs (Kobari 2015; Ando 2017a).

Prior to the fifth-year review, the national government also took two measures involving legal amendments to improve progress based on the annual reviews.[305] First, with the amendment to the Land Improvement Act in 2017, a new system of land improvement was introduced to exempt beneficiaries from bearing project costs under the FB program (MAFF 2018d). Second, with the amendment to the PIAMF Act in 2018, FBs were allowed to omit some administrative procedures to transact the rights to farmland with complex or unknown ownership that had hindered farmland transactions (MAFF 2018d; National Agricultural News 2018).

3.2 Program Implementation in Ishikawa Prefecture

To provide substantive details of the program implementation, this section focuses on the case of Ishikawa Prefecture. Given the multilevel mechanism of the FB program, it first exhibits implementation at the prefectural level, laying out the organizational structure and examining progress. Then, it shows implementation at the municipal level with a focus on two municipalities in distinctive regional contexts within the prefecture. To highlight the commonalities and differences of program implementation at the municipal level, I offer the comparative view on the two municipalities in light of their approaches to the program and the statuses of program adoption.

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[305] Based on the progress until fiscal 2016, the MAFF noted that the FB program had taken advantage of the cases to easily adopt the program in the past years, but such cases would no longer be much available for the coming years (MAFF 2017b). Thus it planned to develop four measures: 1) to strengthen the local system to promote the program in association with the reform of the agricultural committees; 2) to enhance the linkage between the FB program and land improvement projects; 3) to incorporate the lessons from program implementation in the fifth-year review of the program (e.g., administrative complication); and 4) to give the government-wide consideration to the problems with farmland held by unknown owners. In addition to the legal amendments related to the second and the forth issues respectively in 2017 and 2018, the MAFF planed to review the administrative procedures of the FB program and coordinate with other means of farmland aggregation with the FB program in the fifth-year program review (MAFF 2018d).

3.2.1 Prefectural Implementation

Organizational Structure

In Ishikawa prefecture, a FB was housed at the Ishikawa Agricultural Total Support Organization (INATO) in July 2014.[306] The INATO is an affiliated organization of the prefectural government staffed with the prefectural government officials to serve as a clearinghouse mechanism of agricultural human-resource development.[307] To launch FBs, many other prefectures renovated the ALHR agencies, which are normally public corporations staffed with their own employees mainly to deal with farmland ownership transactions.[308] Although Ishikawa also had an ALHR organization, it took advantage of the INATO's resources to seek farmland users including new entries and promote tenancy arrangements based on close communications among the in-house officials trained in intragovernmental coordination.[309] To ensure communications among relevant agencies, a three-level mechanism was established in 2015 involving the prefectural, regional and municipal levels.

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[306] With the FB Act (Article 4), the INATO was designated as a FB by the governor on the 1st July 2014 (INATO 2014a).

[307] The INATO as an affiliated organization was staffed with the officials belonging to the Department of Agriculture, Forestry and Fisheries (DAFF) of the prefectural government. With an aim to address diverse needs of support for farm management from any interested citizens, it served as a clearinghouse of internal and external resources to promote agricultural human-resource development through providing consultation services, training of farm management, and networking opportunities of farmers (INATO 2014a).

[308] Prior to the FB program, in most prefectures, the public corporations at the prefectural level were responsible as ALHR agencies for buying and selling farmland for farmland liquidation, whereas the ALHR agencies at the municipal level (e.g., municipal governments, JAs, and municipal public corporations) were for leasing and lending farmland. The ALHR agencies at the municipal level were abolished upon the launch of the FUAF program in 2009 to be replaced with the FUAF agencies with the amendment to the PIAMF Act. The ALHR agencies at the prefectural level were abolished upon the launch of the FB program 2014 to be replaced with FBs (Nishimura 2013). The ALHR agencies mostly in the form of public corporations also receive fixed-term and temporary employees and capital subscription from the prefectural government, but have their own employees.

[309] As in many other prefectures, in Ishikawa, the public corporation at the prefectural level had served as an ALHR agency since 1970 to facilitate farmland transactions mainly on ownership, while the agencies at municipal level such as JAs had served since around 1993 to facilitate tenancy arrangements. The prefectural public corporation was established 1969 prior to the ALHR program (1970) to acquire farmland for farmland development projects but started to engage in the ALHR program in 1970. After the ALHR program was abolished upon the launch of the FB program, the corporation has engaged in managing and selling the farmland that had acquired under the ALHR program among other tasks.

At the prefectural level, the prefectural government has held a biannual conference to convene representatives of relevant agencies for information exchange.[310] Within the prefectural authority, three sections have been in charge of program implementation, including one section of the INATO, and two sections at the Department of Agriculture, Forestry and Fisheries (DAFF) of the prefectural government. The office at the Agricultural Policy Division (APD) of the DAFF has developed policies of implementation to be primarily followed by the responsible section at the INATO, but if infrastructural development such as land improvement is desirable or appropriate, the Agricultural Infrastructural Division (AID) of the DAFF has collaborated on the FB program.[311] At the regional level, five regional offices of the DAFF have coordinated between the FB and the municipal agencies. Each of the regional offices is responsible for technical and administrative support and information exchange with the municipal agencies in its jurisdiction. At the municipal level, municipal governments have been delegated by the FB to implement the program often with other local agencies. Among others, the municipal tasks have included the review of the CAMPs, the matchmaking of farmland owners and users, and the coordination of land improvement.

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[310] The participants include the representatives from the relevant departments and sections within the prefectural government, the INATO, the JA prefectural Unifier, JA prefectural headquarters of the marketing and supply business sector, the prefectural Chamber of Agriculture, and the prefectural Land Improvement Projects Federation.

[311] The executives of both at the INATO and the DAFF have made final decisions on the implementation policies: the INATO has been directed by the executives consisting of the governor as the director and a few former top officials of the DAFF (Interviews with prefectural officials on August 23 and December 6, 2016). The group leaders from the three sections have kept close communications and often worked together to build public relations with stakeholders in the prefecture and beyond. At the working level, however, the three sections have specific roles and responsibilities. The APD office has served to organize the data on agricultural land and human resources, in addition to drafting implementation polices and budgeting for the FB program. Following the policies prepared by the ADP office, the responsible section at the INATO has coordinated with regional and local agencies and has pursued all the administrative tasks for tenancy contracts (paper work, collection and payment of rents). Also with the MAFF's notice to promote the FB program implementation in combination withe land improvement, the AID n of the DAFF has followed needs for land improvement from local actors as well as others interested in new entries, and supported land improvement projects combined with the FB program (Interviews with prefectural officials on August 3 and 4 and December 6, 2016).

Among the relevant agencies at the prefectural level, two organizations have historically engaged in tenancy arrangements: Prefectural Unifier of Japan Agricultural Cooperatives (JA), and Prefectural Chamber of Agriculture.[312] With an institutional focus on farm management and farming, the JA Prefectural Unifier as a prefectural peak organization of JAs, has supported tenancy programs in various ways.[313] In parallel with the FB program, all the 17 JAs in the prefecture have continuously served as FUAF agencies to mediate tenancy arrangements under the FUAF program.[314] Despite the slowed pace of increase, considerable volume of farmland transactions still have been made under the FUAF program.[315] Furthermore, some of the JAs sponsored the establishment of Agricultural Production Corporations to directly manage farms on farmland owned by cooperative members who were not fully capable to engage in farming.[316]

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[312] In addition, the Land Improvement Projects Federation has played a role in structural improvement of farmland at the prefectural level, not directly to facilitate tenancy arrangements, but to facilitate land improvement projects that may involve tenancy arrangements.

[313] Historically the JAs as local agencies have supported tenancy arrangements with either the ALA or the PIAMF Act (Interviews with JA officials on August 5, 2016). For the 'leasehold-right' setting with the ALA, the JAs have often helped their cooperative members if requested to make a match between owners and users and coordinated with the agricultural committees, drawing on their knowledge and information of local farming, although such tasks were not legally bound. For the 'use-right' setting with the PIAMF Act, all the 17 JAs used to serve as the ALHR agencies (abolished with the launch of the FUAF program) at the municipal level to engage in tenancy arrangements by directly leasing farmland from owners and subletting it to users. With the launch of the FUAF program, the JAs have served as the FUAF agencies to additionally engage in tenancy arrangements by making contracts on behalf of owners.

[314] Under the FUAF program, all the 17 JAs in addition to one municipal government were designated as FUAF agencies in fiscal 2010 (Interviews with JA officials on August 5, 2016). In one municipality where the municipal government has served as a FUAF agency, the agricultural committee took an initiative to engage in the FUAF program within its municipal territory, which is part of the jurisdiction of one JA. After the launch of the FB program, the parties of tenancy (i.e., owners and users) can use either the FB program or the FUAF program. Subsidiary opportunities shifted from the FUAF program to the FB program, but the FB program is limited to the farmland within the Agricultural Promotion Regions (i.e., superior farmland), while the FAUF program is applicable to all kinds of farmland.

[315] The volume of farmland transactions through the FUAF agencies greatly increased until fiscal 2013 under the FUAF program that provided economic incentives for the parties, as the volume annual transactions increase by 76.3% from fiscal 2011 to fiscal 2013. Since fiscal 2014, the volume remained almost unchanged, but still amounting to over 3,200 ha annually until fiscal 2017 (Interviews with JA officials on August 5, 2016 and August 24, 2018).

[316] As of 2016, out of the 17 JAs, 7 JAs engaged in sponsoring 'Agricultural Production Corporations' in a form of their subsidiary corporations or village-based farming corporations (i.e., 14 corporations in total) to engage in farm management with tenancy and/or contract farming (Interview with JA officials on August 5, 2016). After the amendment to the ALA in 1993, which allowed JAs to sponsor 'Agricultural Production Corporations' the number of corporations with the JA sponsorship increased (T. Uchida and Kobari 2015).

In addition, with the increased political pressure to reform the JA system, the Prefectural Unifier created a new office, called Farming Strategy Office, in December 2015 to lead the self-reform for agricultural promotion.[317] This Office has been in charge of the issues of farmland use as part of the support to foster 'responsible farmers.'[318] Differently from the FB, however, it aimed at more inclusive support of 'diverse responsible farmers' as cooperative members including elderly and smaller farmers besides large 'responsible farmers.'[319]

With an institutional mandate to preserve superior farmland, the Prefectural Chamber of Agriculture has served as a prefectural federation of the agricultural committees that administer farmland transactions at the municipal level. Under the FB program, the role of the agricultural committees was relatively small in tenancy arrangements, but large in farmland data

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[317] Since December 2015, the Farming Strategy Office has served as a focal point of the self-reform of the JA group in Ishikawa to share information and knowledge related to training and guidance on farm management and farming within the JA group in Ishikawa. While the self-reform is a nationwide theme of the JAs, the group in Ishikawa declared the basic strategy to make progress in its activities for three years between 2016 and 2018 with a three-fold goal: 1) to increase the income of farmers; 2) to expand agricultural production; and 3) to revitalize local communities.

[318] Over more than two decades, the Prefectural Unifier has joined efforts with the INATO to implement the agricultural structural policy in several respects such as the support of incorporation of farm management entities and the facilitation and coordination of farmland use (Interview with JA officials on August 5, 2016). In particular, it had dispatched four officers to INATO to ensure collaboration and communications, but halved the dispatch upon the creation of the Farming Strategy Office to put more effort into the self-reform. As part of its services to support responsible farmers including village-based farming organizations, the Office has supported the local coops on the issues on farmland use, while it has collaborated with the prefectural government and the Prefectural Chamber of Agriculture to hold seminars to inform the JA officers on the new agricultural land policies and systems.

[319] Differently from the recent national agricultural policy, the JA prefectural unifier has fostered and supported 'diverse' responsible farmers in consideration of different local conditions within the prefecture (Interview with JA officials on August 5, 2016). As part of the basic strategy of self-reform, it has bolstered the Team of Agricultural Corporate (TAC) program that has developed to enhance the communication between local coops and large farmers and reflect their needs on the JA's activities. Rather than promoting farmland aggregation to large farmers, however, it has made efforts to make the agricultural land systems available for any interested cooperative members and also supported small and part-time farmers, for instance, through the support of incorporation of village-based farming organizations.

management.[320] Also, due to a systematic reform, the agricultural committees have been undergoing restructuring since 2016 to halve the number of committee members but add 'coordinators' at each committee to promote farmland use.[321] With this new structure, the agricultural committees have been increasingly encouraged to collaborate on implementation of the FB program at the local level where new 'coordinators' were expected to play a larger role in taking stock of the local status and informing local actors on the program.[322] Differently from the FB, however, the Chamber of Agriculture federates the agricultural committees, which are often called 'guardian of farmland,' to preserve farmland based on the status-quo of the land rather to promote farmland liquidation (Yukitomo 2015).

Progress in Implementation

Ishikawa prefecture has made much better progress in farmland aggregation than the national average. The farmland aggregation rate increased by 15.7% over the first four years between 2014 and 2018, which is the highest among all the prefectures.[323] In terms of the FB program

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[320] The conventional tenancy contracts require the permissions by the agricultural committees under either the ALA (for individual arrangements) or the PIAMF Act (for collective arrangements), though the role of the agricultural committees is larger in farmland transactions based on the ALA than those based on the PIAMF Act: The agricultural committees table and endorse each of the farmland transactions based on the ALA, while they decide the municipal farmland use and aggregation plans to make them effective for public notice. However, the FB Act allows tenancy contracts between FBs and users to be made by the governors' approval of farmland redistribution plan for which the agricultural committees are only consulted, while tenancy contracts between owners and FBs still needs to go through the approval by the agricultural committees. With the amendment to the ALA along with the launch of the FB program, the agricultural committees were mandated to update and organize the data of farmland ledgers in an electronic form through considerable budget allocation in order to render the farmland data and information available for a wide variety of interested parties across different regions.

[321] With the amendment to the Agricultural Committee Act (ACA) in 2016, the electoral system of the agricultural committees was also replaced with the appointive system where mayors appoint committee members on the consent of municipal assemblies (Yukitomo 2015). This was mostly because of fewer farmers motivated or capable to become committee members along with the decline in the farm population (Yukitomo 2015).

[322] While the agricultural committees have worked with the FBs based on the surveys on farmland and owners' intent about abandoned farmland (with the 2009 ALA), the national government has promoted more active collaboration between FBs and the agricultural committees since fiscal 2017 (Ando 2017a, 2017b, 2017e).

[323] The farmland aggregation rate increased from 42.6% (18,193ha) in March 2014 to 58.3% (24,194ha) in March 2018.

performance, the FB contribution ratio was 28% cumulatively for the first four years, ranking in the top three in the country. These high rankings stood in competition with those of the neighboring prefectures. In respect of the four-year FB contribution ratio, Fukui Prefecture, which borders the south of Ishikawa, ranked first (37%), while Toyama Prefecture, which borders the north, ranked fifth (25%). In addition, Niigata Prefecture, another prefecture in the same jurisdictional region of the MAFF (i.e., Hokuriku region), ranked sixth. An official of the INATO attributed the high performance of these prefectures to the large share of rice paddies across the region and the implicit competition among the prefectures.

First, rice paddies can take more advantage of farmland aggregation than dry fields. Land-extensive rice farming requires larger land for better profits than labor-intensive dry-field farming that can be profitable without much land. Furthermore, the recent increase in retirement of rice farmers through aging and the rice price depreciation has made more rice paddies available for tenancy arrangements. Given the large share of rice paddies in Hokuriku region (i.e., 90% compared to 54% on average nationwide in 2015), the prefectures could more easily improve the FB contribution ratio if they promoted the FB program (MAFF Hokuriku Regional Office 2017). Second, the hierarchical rankings seemed to push for the best achievable performance in these prefectures. In this regard, the official mentioned (Interview with a prefectural office on August 4, 2016):

> *"The degree of interest in the program varies across the country. Some prefectures many not recognize the needs for the FB program, and others may be in different settings. … In Hokuriku region, ostensibly we can say each administration has found meaning of the program in its own context and actively engaged in implementation. But honestly in assessing, these prefectures competed against one another. Without the rankings, we may not have given it our all. … Across the country, the rankings largely*

led to a split between high and low performers. Some prefectures interested in the program actively promoted the program to procure the budget and take advantage of it for regional development, but others indifferent about the program did not take much action. Such an interest seems to express itself as the rankings."

Despite the commonalities, these prefectures took different approaches to the program. In terms of farmers, Ishikawa brought outside farmers into areas with a lack of local farmers. Other prefectures largely built on the existing agrarian population (e.g., individual management entities in Niigata, and village-based farming organizations in Toyama and Fukui).[324] The FB in Ishikawa has also prioritized local farmers as it has delegated the matchmaking tasks to municipal agencies to take advantage of local resources for program adoption. If the intragovernmental communications found a good fit for new entries, however, the FB actively facilitated the entries of outsider farmers in collaboration with municipal agencies. Specifically, with the aid of regional financial agencies, the prefectural government created a fund in 2014 to provide five-year interest-free loans for the corporations that entered in farm management on a large scale in the unfavorable areas in an attempt to revitalize the declined farming communities.[325] At the same time, it vigorously sought the corporations interested in farm

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[324] Farmers as subtenants of the program were largely categorized into three types of management entities: 1) village-based farming organizations; 2) local individual entities; and 3) outsider entities. Since before the launch of the FB program, Niigata has been featured with a larger share of individual entities (e.g., full-time farmers or corporations as certified farmers), whereas Toyama and Fukui have been characterized by a larger share of village-based farming organizations (Tabayashi and Kikuchi 2016). Accordingly, larger share of farmland aggregation has been geared to individual entities in Niigata, and to village-based farming organizations in Toyama and Fukui (Tashiro 2018; Miyatake 2010). Ishikawa has been in between these two extremes: less heavily relying on village-based organizations and thus holding a little larger share of certified farmers compared to Toyama and Fukui prefectures (Tabayashi and Kikuchi 2016). In either form of individual entities or village-based organizations, farmland has been aggregated largely into the local farm management entities across all these prefectures.

[325] As a means to support farm management for new entries, the prefectural government established a fund amounting to JPY 14 billion (approximately USD 127,568,000) with an aid of the JA group and financial agencies in Noto region, which was a first kind of Japan (Hosokawa 2015). Taking advantage of profits from the fund, it developed a new program that provides five-year interest-free loans for corporations to enter into or expand farm management on a scale larger than the certain prescribed scale and contribute to addressing farmland abandonment in the unfavorable areas with a lack of responsible farmers (i.e., hilly and mountainous regions and the region designated as a GIAHS site (Hosokawa 2015).

management and pursued outreach activities. This resulted in several cases where outsider corporations were brought in from different regions in the prefecture and even beyond.

Yet, Ishikawa's strategic focus on new entries was somewhat discouraged by the lax national policy to allow for almost nominal changes in local tenancy arrangements. Accordingly, the prefectural government adjusted its implementation policies to broaden the scope of tenancy arrangements, as an prefectural official detailed (Interview with a prefectural office on August 23, 2016):

> *"When the national government introduced the program, they were saying a farmland bank was to collect farmland as much as possible in a prefecture and distribute them without local consent to responsible farmers whoever are technically capable. … But, our executives said 'Don't do exactly what the national government says.' We all knew, otherwise local communities would break up. So we designed our policy to strategically use the program with a focus on new entries and support the area lacking local farmers. …But sometime after the program began, the national government said 'Prefectural performance are ranked, and the more contracts are made through FBs, the more budget is allocated.' Then, we came not to limit the program to a good fit for new entries in the area short of farmers. The national government could even go so far as to say once that the subsidies could be given for the cases where the program was adopted upon terminating the existing contracts by consent. Initially we did not accept such nominal, paper-based arrangements, but other prefectures increasingly accepted such cases and attained good performance. Then, the national government correctly restated the contract renewal could be counted as long as it involved additional farmland aggregation. So we publicly informed on such policy and started to accept the cases where the tenancy is re-arranged through the FB as long as the area of aggregated farmland can increase even with one paddy."*

In terms of farmland, the prefectures took advantage of land improvement opportunities to promote the FB program, but differently depending on the status of farmland across and within the prefectures. All the prefectures have been increasingly encouraged by the national

government to combine land improvement projects with the FB program.[326] Despite better progress in Hokuriku region than the national average, Ishikawa has lagged behind the neighboring prefectures in land improvement, and thus pulled considerable budgetary and human resources in facilitating land improvement in combination with the FB program.[327] In particular, it held a few unique cases in which farmland was improved upon new entries to make good-quality farmland available for outside corporations.

Within Ishikawa Prefecture, the status of farmers and farmland varied across different locations as did the approaches to the FB program. As a whole, there were two regional distinctions: 1) hilly and mountainous areas in Noto region faced with harsher agricultural abandonment, and 2) flat areas in Kaga region characterized by a larger share of responsible farmers.[328] To fill the gap, the prefectural government has made a stronger effort in the FB program with land improvement in Noto. In particular, Naka-Noto region in the south part of

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[326] The MAFF issued a notice in October 2014 to prioritize budget allocation for the land improvement projects associated with the FB program (MAFF 2017f). Furthermore, with the amendment to the Land Improvement Act in May 2017, the national government introduced a new program of land improvement in combination with the FB program in fiscal 2018, by which prefectural governments are authorized to conduct land improvement projects without requests, agreements and cost share by beneficiaries of the projects.

[327] In terms of the progress rate of land improvement (i.e., the share of farmland with land improvement projects for a plot larger than 0.3ha in the cultivated land), as of 2016 Hokuriku region (69.2%) progressed better than the national average (64.7%) (MAFF 2018g). In the region, the rate of Ishikawa (60.3%) was mostly equivalent with that of Niigata (60.4%) but much less than that of Toyama (84.7%) and Fukui (91.0%) (MAFF 2018g).

[328] Noto region as a whole is mostly disadvantageous in agriculture due to its geographical conditions, compared to Kaga region. On the one hand, Noto largely encompasses hilly and mountainous areas unfavorable for large mechanized farming, and thus agricultural abandonment has rapidly progressed, leading to the larger share of abandoned farmland. On the other, Kaga, except for the area in the vicinity of Mount Hakusan, comprises flat areas with the improved irrigation systems, maintaining farm labor force through farmland aggregation to local farmers in the past decades albeit not necessarily through farmland consolidation. In 2015, the farmland abandonment rate was 26.7% (4,099ha) in Noto and 11.0% (1,718ha) in Kaga whereas that of the prefecture on average was 18.7% (5,817ha) (Source: Census of Agriculture and Forestry). Also, the proportion of certified farmers to commercial farmers was 11.4% in Noto and 22.7% in Kaga, suggesting that a larger share of responsible farmers in Kaga.

Noto region had the largest room for land improvement among the five jurisdictions and thus has gained more administrative resources.[329]

In addition, the administrative leadership of municipal agencies also affected program performance at the municipal level. For instance, Town J actively facilitated local discussions under the mayor's initiative, and brought in outside corporations by improving previously wasted farmland for consolidated dry fields. Such examples of local administrative leadership were mostly found in Noto where agricultural abandonment was more serous, though not all municipalities in the region acted so ardently. As the existing superior farmland was usually in local demand, the approaches to the FB program (e.g,. combination with land improvement, new entries) were largely contingent on the present status of farmland and farmers.

As the scheme was based on the status of farmers and farmland, the CAMP program was to serve as a substantial basis of planning farmland aggregation, but in practice served as a tool to take advantage of governmental subsidies. This was mainly because of the timing of program introduction and the subsidiary mechanisms associated with these programs. Prior to the FB program, the CAMP program was introduced in 2012 in tie-ups with the subsidiary programs. In this setting, municipal governments were urged to list all responsible farmers (i.e., mostly certified farmers) in each plan corresponding to a certain area so as not to let eligibles miss out

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[329] Since the mid 1960s, land improvement projects started largely with relatively cohesive groups of paddies (e.g., 200ha) in the plane fields of Kaga region, but were yet to be conducted in many parts of Noto region in 2015 (Ishikawa Prefectural Government 1986; Hirota 1999). In particular, the area to be improved in Naka-Noto region remained largest among the five jurisdictions in the prefecture (particularly in consideration the progress in land improvement relative to the regional target). Thus the Naka-Noto regional office of the DAFF was better staffed and budgeted for land improvement projects in recent years (Interview with prefectural officials on August 26, 2016). Yet, many paddies in Kaga had been improved in the early days mostly for the size of 0.3ha, but not for the size of 1 ha or more that became popularized in the flat fields over recent decades (Hirota 1995). With such a paddy size, farmland has been aggregated to fewer local farmers on an ad hoc basis, and thus became fragmented across different large farmers.

on subsidiary opportunities.[330] This hasty process resulted in 206 plans across all the 19 municipalities at the end of fiscal 2012, where most municipalities demarcated their jurisdiction into several areal blocks to cover all subsidiary eligibles, rather than facilitating close dialogues at local communities for their voluntarily selection of central management entities.[331]

Upon the introduction of the FB program in 2014, the prefectural government began to enhance the CAMP program to meet the national subsidiary conditions, while taking advantage of the CAMP program in matchmaking for new entries.[332] This resulted in refinement of the areal demarcation to produce 607 plans across all the municipalities as of March 2016, through which an original area was often subdivided to take best advantage of FB subsidiary opportunities.[333]

3.2.2 Municipal Implementation

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[330] When the CAMP program began in 2012, the prefectural government initiated its own measure to marshal the mapped data on farmland under the initiative of Director of General of the DAFF (Interview with prefectural officials on August 23, 2016). The idea was to take advantage of the planning process of the CAMP program to develop prefectural policy on zoning by organizing the farmland data in respect of whether it should be preserved or could be naturalized for the long run based on local discretion. This initiative resulted in the municipal responses that covered about 60% of the entire farmland, which was insufficient to develop the policy at the prefectural level.

[331] Most municipalities initially divided a municipal jurisdictional area into several blocks, for instance, based on the school districts, the jurisdictions of JA branches, or other administrative boundaries (Interview with prefectural officials on August 23, 2016).

[332] Following the national policy, the FB has made tenancy contracts based on the CAMPs to implement the FB program, as this process allowed for subsidiary provision (Interview with a prefectural official on August 4, 2016). In addition, to search a good fit for new entries, the FB has sometimes used the CAMP program, in which the municipal governments can identify the areas short of responsible farmers (Interview with prefectural officials on August 23, 2016).

[333] For instance, when a local community engaged in a land improvement project, the project area was clipped off from a broader original area of a CAMP so as to achieve the threshold of farmland aggregation rate as subsidiary conditions for collective lenders (Interview with a prefectural official on August 3, 2016). Also, the original areal demarcation was redefined in accordance with the coverage of responsible farmers so that more relevant actors could better communicate, particularly when new farmers entered in the area short of responsible farmers or when village-based organizations were incorporated (Interviews with prefectural officials on August 3 and 23, 2016). As such, some plans were improved with refined areal demarcation, but others remained nominal lists of responsible farmers and thus unused (Interview with a prefectural official on August 4, 2016). As the municipal governments were to annually review the plans, the prefectural government has provided guidance for the municipal governments to review the plans particularly upon adopting the FB program.

Under the program implementation at the prefectural level, municipal governments have dealt with the tasks which the prefectural government has delegated. This section focuses on two municipalities located in different regions of the prefecture: City A in Noto region, and City B in Kaga region. To expose how similarly or differently these two municipalities have pursued the program, the following provides comparative visions on the approach to local communities, and the status of program adoption.

Introduction to local communities:

With the start of the FB program, the two city governments differently approached the local communities: City A directly informed the representatives of local communities on the new FB program, while City B continued to leverage the JAs. On the one hand, City A government gave the program a fresh start.[334] For the first fiscal year, city officials informed the representatives of all 226 production associations (i.e., local farming organizations mostly on a scale of a farm village) at the biannual meetings, and then followed up if any needs arose.[335] For the tenancy arrangements other than the FB program, the JA covering the city's jurisdictional area has been serving as the FUAF agency, but its role in tenancy arrangements largely moved to the city

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[334] When the city government started to engage in the FB program in 2014, it coincidentally started to chair the Noto Regional Association for GIAHS Promotion and Cooperation, and then divided one section into two: 1) Secondary Forest and Coastal Promotion Division (SDCPD); and 2) Agricultural and Forestry Division (AFD) (Interview with city officials on November 30, 2016). The SDCPD took a responsibility for the tasks related to the FB program, while taking up those of the CAMP program and the Agricultural Promotion Region Planning program. The AFD continued as before to engage in a wide variety of tasks related to agricultural promotion, including infrastructural and human-resource development, among which it dealt with the conventional tenancy arrangements based on the PIAMF Act. In addition, as part of the AFD, the Secretariat of Agricultural Committee (SAC) continuously facilitated the activities of the agricultural committee.

[335] City officials initially attended the meetings where the representatives from the total of 226 associations across the city were present, but if any needs arose, they visited certain local communities given that the program mechanisms were hardly comprehensive for many of the representatives whose knowledge of agricultural policy largely varied (Interview with city officials on November 30, 2016).

government with the FB program.[336] Historically the main actor to administer 'farmland use' has been the city government, whereas the JA has served to promote 'farm production.' Though the JA was given more responsibility for tenancy arrangements only after the FUAF program (2010), it came back to the original professional province of 'farm production' along with the subsidiary shift from the FUAF program to the FB program.[337] Rather than to engage in tenancy arrangements but to take advantage of its professional province, it established an Agricultural Production Corporation with its own sponsorship in 2017 to directly help farm management and mitigate farmland abandonment.[338]

On the other, City B government built on existing local networks.[339] Rather than directly approaching the local communities, it continuously took advantage of the JAs' resources in picking up the tenancy arrangements that were applicable for the FB program. Two JAs covered the city area: 1) the JA-BX with a broader jurisdictional area across two municipalities; and 2)

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[336] The JA was established in April 1994 with the merger of 8 JAs, and its jurisdictional area covers City A and another neighboring town. It became the FUAF agency upon the introduction of the FUAF program in 2010 to mediate tenancy arrangements by receiving the needs from the interested parties (i.e., owners and farmers who were interested in tenancy) and advising as to feasible arrangements through the communications with them (Interview with a JA officer on November 29, 2016).

[337] The role of the FUAF agency is similar in practice to what the city government has played for the FB program, but the subsidies associated with the FUAF program ceased upon the inception of the FB program. This move was a return of the tasks back to the city government in that the JA began to deal with the tasks related to farmland only after the start of the FUAF program in 2010, while the city government continuously engaged in the administration of farmland use. Even as a FUAF organization, the JA's role was limited to coordination between the two parties, because the final contracting procedures had to be handled by the city government that also organized, updated and stored the data of farmland. After the FB program started, the JA continuously served as a FUAF organization but basically to manage the existing tenancy contracts that was made under the FUAF program.

[338] With an aim to stabilize local farming and engage in farmland management in cooperation with farm villages and responsible farmers, one section of the JA established an Agricultural Production Corporation as a stock corporation with the JA's sponsorship in 2017. Given that it was to support the local communities but not to suffer a deficit, it planned for the next several years to engage in farming through tenancy arrangements and contract farming with a focus on 'superior farmland' (e.g., larger improved paddies).

[339] In City B government, one division, the Division of Agricultural Policies (DAP), has continued to engage in the tasks of farmland tenancy among a wide variety of tasks related to agricultural infrastructure and human-resource development, involving the role of the secretariat for the Agricultural Committee (Interview with city officials on November 22, 2016).

the JA-BY with a smaller jurisdiction in a part of the city.[340] Both of them have historically helped their cooperative members, if requested, to make tenancy arrangements, and then served as the FUAF agencies to engage in the FUAF program from 2010. In many cases, owners and tenants preliminarily agreed on tenancy at their ends, and then sought administrative support from the JA to make contracts and, if opportunities given, to apply for governmental subsidies.[341] After the FB program began, they continued to accommodate such requests from cooperative members and help them to apply for the FB program.[342] In particular, the JA-BX has not only liaised with the city government but also handled most of the groundwork for program application in each case of tenancy arrangements, while the JA-BY has not actively promoted the program. According to city officials, this was presumed to depend on the organizational capacity: the former was staffed with an officer responsible for the FB program at the headquarters and with officers who could support at four branches, while the latter had neither specialized officer nor branch (Interview with city officials on August 29, 2016).

Program Adoption:

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[340] The JA-BX was established in 1998 through merger of three JAs including two corresponding two districts in City B and one in a neighboring Town. The JA-BY has remained one JA in a district in City B since 1972.

[341] Both of the JAs as local farming agencies have been contacted by the cooperative members to help make tenancy arrangements if needs arose. With a greater organizational capacity, the JA-BX has supported administrative procedures for tenancy arrangements in response to the requests from those who had already determined the parties of tenancy contracts, and has continued the same practices after the launch of the FB program (Interview with a JA officer on December 12, 2016). Despite less capacity to engage in the FB program, the JA-BY has been similarly contacted by the cooperative members for the support of administrative procedures (Interview with a JA officer on November 24, 2016). In addition, in the case of the JA-BY, if the cooperative members could not find a counterpart of tenancy, they asked the JA to help find counterparts through the JA's networks.

[342] On a case-by-case basis**,** if applicable for subsidiary opportunities, they introduced those who contacted to better beneficial means of tenancy arrangements. If a case was applicable to the FB subsidies, the JAs helped them to apply for the FB program, but otherwise let them decide any means appropriate for them (e.g., the contracts based on the PIAMF Act, informal agreements) (Interview with a JA officer on November 24, 2016).

Program adoption was also different between the two cities: City A adopted the program largely for land improvement, while City B applied it mainly to farm retirement.[343] On the one hand, City A, located in Naka-Noto region, had greater momentum to promote land improvement projects, which were better financially supported if they were combined with the FB program. As long as the local communities were motivated to pursue land improvement with the economic incentives for collective lenders, this facilitated both farmland aggregation and consolidation. On the other, City B basically adopted the FB program for small owner-farmers who retired from farming. With the economic incentives for individuals, this slightly aided farmland aggregation but not necessarily farmland consolidation.

In addition, as in City A, there was a case in City B where local communities adopted the FB program upon the incorporation of village-based farming organizations. So long as the organizations were motivated and capable to manage their farm in an incorporated manner (which normally required additional management capacity), they could take advantage of the fund for collective lenders. Yet, this approach was mostly indifferent about *de facto* farmland aggregation and consolidation, as it merely formalized existing local arrangements without much

[343] In City A, the farmland that became under tenancy through the FB till the end of 2016, amounted to 90.9ha in 35 local communities, many of which took advantage of the collaboration funds on farmland aggregation to local communities (Interview with city officials on November 30, 2016). In City B, the farmland under tenancy through the FB till March 2016, amounted to 60.9ha of 538 plots where the collaboration fund on management reorganization was provided for retired farmers in most of the cases (Interview with city officials on August 29, 2016).

physical change.[344] Other than these cases, the two cities continued to engage in conventional tenancy arrangements.[345]

The challenges that these cities faced involved both commonalities and differences. The common ground was the administrative complication to handle the FB program. Compared to City B that shared the workload with the JAs, City A more severely suffered from the cumbersome administrative procedures. While imposing a burden also on owners and users to make tenancy contracts, the contractual arrangements took substantial administrative time and cost particularly in a setting of fragmented small plots where many cases involved elderly landowners, absentee landlords, and heirs who never registered the land.[346]

The differences largely arose from the different density of responsible farmers. In City A where responsible farmers were less densely populated, these farmers could relatively easily access farmland for better productivity even without the FB program. Albeit a subsidiary opportunity for local communities, responsible farmers may or may not take advantage of the opportunity contingent on communal decisions, and thus were not necessarily incentivized to

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[344] For instance in one case, a village-based farming organization with the unincorporated status had pursued farmland aggregation in a community where landowners farmed out to the organization based on contract farming (Interview with city officials on August 29, 2016). Although the organization without legal personality could not make an official tenancy contract (i.e., user-right setting), it became able to make a tenancy contract upon its incorporation due to the legal personality. In this process, the newly incorporated organization increased the farmland aggregation rate from zero to certain percentage depending on the factual farmland aggregation even without much physical change.

[345] In the both cities, the majority of the formal tenancy arrangements other than the FB program were made through the use-right setting based on the PIAMF Act, for which the volume of administrative procedures was much less than that of leasehold-right setting based on the ALA (Interviews with city officials on August 29 and November 30, 2016).

[346] For instance in City A, to adopt the FB program, as a first step, the city government needs to request farmland owners to register as lenders on each of their plots to be lent out to the FB so that they could make tenancy contracts between owners and the FB through farmland aggregation plans (Interview with city officials on November 30, 2016). This process is cumbersome particularly in Noto region as in many cases owners had already deceased and their heirs were not yet to register the land. In such cases, the city government has to collect the personal seals of all lawful successors who often reside in other parts of the country. Compared to the use-right setting with the PIAMF Act, the procedures for the FB program additionally requires the registration of each plot to be lent out to the FB. This process is not so easy particularly for the elderly landowners who have even less physical strength to write.

adopt the program.[347] In City B where responsible farmers were more densely populated, they faced challenges to improve productivity through farmland aggregation (e.g., negotiation between responsible farmers, technical difficulties with farmland consolidation). To resolve these challenges, village-based collective farming could be a way, for which the FB program offered a funding opportunity for collective lenders. Yet, the initiative to develop village-based farming organizations and particularly to incorporate them was another challenge in respect of consensus building and managerial capacity.

In the process of program implementation, both cities revised the CAMPs in a similar manner. Prior to the FB program, they had developed the CAMPs for the areas on a larger scale, but clipped off certain smaller areas when local communities adopted the FB program. This was because the area of a CAMP was used as a denominator of farmland aggregation rate under the FB program and provided the funds for collective lenders in accordance with the aggregation rate. Thus, a smaller area worked better for funding opportunities (i.e., the funds for collective lenders).

Other communities, however, remained mostly indifferent about the CAMPs. Therefore, although the annual review of all the plans has been encouraged under the CAMP program, the city governments have reviewed the plans for amendments only if needed, for instance, when local communities collectively adopted the FB program or when new certified farmers needed to be listed on the CAMPs to be eligible for subsidies. For instance, City A developed 29 plans across the entire city mostly on the basis of the school districts (i.e., 20 districts) until the end of

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[347] The funds for collective lenders could be used for local agricultural development, including the improvement of farm roads, the purchase of large machines by local responsible farmers, based on the local consensus. As a community is not necessarily monolith, the city officials sometimes heard about complaints at local meetings when the funds planned to be used for the benefit of local responsible farmers (Interview with city officials on November 30, 2016).

fiscal 2013, and then segmentalized the original plans into 41 plans as of November 2016 in accordance with the FB program.[348] City B initially developed 4 plans based on the JAs' districts, and then came to have 5 plans after clipping off one community that adopted the FB program.[349]

3.3 Conclusion

The FB program began as a hopeful new system to drastically expedite farmland aggregation and consolidation. With a goal to attain the target of 80% farmland aggregation rate by 2023 as an overriding imperative for nation's revitalization, the national government prepared a huge amount of budget for the program. The program facilitated farmland aggregation to some extent, but its achievement has been far less than the targeted level. Furthermore, the mechanism appeared to subsidize minor physical changes in farmland aggregation, while its economic incentives often failed to outweigh the administrative complexity to adopt the program. To avoid the risks associated with farmland retention on the government side, the FBs were allowed and even encouraged to take advantage of ready-made tenancy arrangements at the local level for credit earning. At the same time, despite the economic incentives, the fragmented structure of farm plots (particularly in the context of agricultural abandonment) further complicated administrative procedures, and disincentivized the tenancy parties to officially make tenancy

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[348] From the beginning some of the 20 school districts were subdivided, while a few areas with specific responsible farmers (e.g., village-based farming organizations) had plans corresponding to their area boundaries on a smaller scale (Interview with city officials on November 30, 2016).

[349] With the start of the CAMP program, the city developed 4 plans corresponding the 4 JA districts (i.e., 1 district of JA-BY and three branch districts of JA-BX)(Interview with city officials on August 29, 2016). Subsequently, the city government revised the plans with updates (e.g., the names of certified farmers, the farmland with tenancy under the FB program) to be endorsed by the CAMP committee, which the city government as a secretariat annually held with involvement of key stakeholders at the city level.

arrangements. With this setting, the FB program has promoted farmland aggregation and consolidation only a little more than the business-as-usual.

The failure to keep up with the annual target has also arisen out of the gap between the feasibility and the goal setting. This gap resulted from the policy-making process, which was led by the Office of Prime Minister (OPM) along with the business community rather than built on the agrarian sector. Both the OPM and agrarian sides stood on common ground that the agricultural structure would fall without new farmers due to the aging of agricultural population. However, their ends were different: the former aimed to revitalize the nation state, while the latter strived to rejuvenate farming communities. Throughout the negotiations, the former has gained more power in the political context where the business community fueled the administrative leadership along with the increasingly mooted agrarian clientelism. The historic regime change somewhat revived the power of the agrarian sector. Yet, the short-lived regime of the Democratic Party of Japan (DPJ) was followed by the vigorous initiative of the OPM-led agricultural policy-making under the returned power of the Liberal Democratic Party (LDP). Despite the last-minute change at the Diet deliberations, the FB scheme was designed in the interest of the business community and hastily bound as new legislation.

As a means to restrengthen the nation-state, the national government treated farmland as the ‘national’ resource rather than a ‘local’ resource. To be as productive as possible, farmland was to be used by most economically and technically capable users and not necessarily by those from local communities. To make this happen, the national government had to tackle vested interests which farmland owners, local communities and the agricultural sector have held for long. Private ownership of farmland was hardly mutable in the capitalist society, but tenancy was

more applicable to open a new market of farmland transactions to new targets. Taking advantage of jurisdictional ladders, the national government deployed the FBs at the prefectural level rather than the municipal one in an attempt to facilitate farmland transactions beyond the grasp of owners and local communities.

Even if the clientelism of the agrarian sector was almost dismissed through political reforms, the bond between farmland and farmers was not to be so easily separable even by means of tenancy. The following chapters explore why and how farmers (including owners and users) and farming communities have responded to the FB program.

Chapter 4: Cooperation or Indifference to the Farmland Bank Program in Ishikawa Prefecture

This chapter addresses how and why communities at large have accepted or resisted the Farmland Bank (FB) program. The FB program started nationwide in 2014, and the level of acceptance varies according not only to prefectures but also to municipalities and even communities within a municipality. The chapter focuses on two farming communities in Ishikawa Prefecture where the majority of farmers have practiced land-extensive farming for rice production. One, District N in the north, has fully adopted the program with full financial support. The other, Village U in the south, has mostly retained conventional tenancy arrangements with little government support. The chapter draws on the data collected in the two communities to illustrate the processes of negotiations leading to either farmers' acceptance or indifference to the FB program, thereby revealing the dynamic character of the 'farmer-farmland' relationships.

4.1 Post-War Transformation of Two Communities in Ishikawa Prefecture

In Ishikawa Prefecture where land-extensive rice farming has been the dominant form of agriculture, rice paddies spread across two geographically distinct regions lying north and south (Tetsuya Hashimoto 1986).[350] The north region, Noto, has hilly and mountainous topologies less favored for agricultural production and distribution and has experienced sharp population decline

[350] The area of rice paddies accounts for 83.3% of the cultivated acreage and constitutes 8.3% of the prefectural area as of 2016 (MAFF 2017c). This share of rice paddies is larger than the national average: the area of rice paddies accounts for 54.4% of the cultivated acreage that constitutes 12.0% of the national landmass (MAFF 2017c).

and aging as well as severe agriculture abandonment.[351] In this region, small-scale and family-run farming is dominant.[352] The southern region, Kaga, encompasses alluvial plains formed with the rivers, and shows moderate demographic shift and less severe farmland abandonment. In this region, the share of the farmers engaging in corporate or large-scale farming is higher especially within the extensive flat part of the region, though small family-run farming is still dominant (O. Seino 1994; Kasama 1997).[353]

The study focuses on two communities in the prefecture to investigate how and why each of them has collectively accepted the FB program in distinctive environmental and demographic settings and despite similar administrative culture and structures. The choice was made based on contrast: District N in the north extensively adopted the program and Village U in the south participated in the program to a very limited extent. District N in City A, is located in the central part of Noto, sitting in the intermountain area of the upper river flowing from a mountain. Consisting of ten farming villages, the district was populated mostly by part-time farmers engaging in rice cultivation on terraced paddy fields and sometimes vegetable farming. It has experienced rapid population decrease and aging and has been confronted with the increasing

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[351] As of 2010, the population increase rate in comparison with 2005 was minus 7.1%, and the population aging rate (i.e., the ratio of population over 65) was 33.7% (Ishikawa Prefectural Government 2013), while the farmland abandonment ratio was 25.1% (MAFF Hokuriku Regional Office 2015b).

[352] As of 2010, the family-run farming entities accounted for 98% (cf., 98% on national average), while the management arable land area less than 2ha accounted for 85% of the total (cf., 80% on national average) (Ishikawa Prefectural Government 2011; MAFF 2011). Despite the unfavorable farming conditions, the region took advantage of the virtue of agricultural landscape management. The rural landscapes of Noto was designated as one of the first two sites in Japan for Globally Important Agricultural Heritage Systems (GIAHS) by the Food and Agriculture Organization of the United Nations (FAO) in June 2011 to showcase the social and ecological significance of the agricultural landscapes and thereby to internationally foster an integrated approach to rural development and raise awareness of agricultural practices nurturing biodiversity (Koohafkan and Altieri 2011).

[353] As of 2010, the population increase rate in comparison with 2005 was 1.3%, and the population aging rate was 21.5% (Ishikawa Prefectural Government 2013), while the farmland abandonment ratio was 9.8% (MAFF Hokuriku Regional Office 2015b). For the same year, in Kaga Region, the family-run farming entities accounted for 96%, and the management arable land area less than 2ha accounted for 73% of the total (Ishikawa Prefectural Government 2011b).

abandonment of houses and farmland.[354] Village U, corresponding to one farming village in City B, is situated in the central part of Kaga Plain. Standing on the alluvial fan of a large river, it has historically formed part of the major rice-producing region in the prefecture, while providing well-drained soil applicable for a variety of agricultural produce owing to a series of irrigation development projects (MAFF Hokuriku Regional Office 2015a). The population has slightly increased in recent years (3.7% increase between 2005 and 2015), but has been faced with shortage of successors in the farming sector (City B 2017).[355]

Both communities have experienced drastic socio-economic, political, administrative and environmental changes throughout the post-war period. The following text illustrates the social, economic and ecological transformations of each community, with reference to the key variables of agricultural sustainability (Kareemulla, Venkattakumar, and Samuel 2017). It lays out the context for adopting different tenancy models.

4.1.1 District N

District N has been politically and administratively peripheralized through a series of mergers and dissolutions in the municipal system in the post-war era. As an official autonomous community, 'Village' N was first formed under the municipal system of the Meiji Constitution in 1889, although it had long existed, by custom as a conglomerate of nine 'early-modern villages' or '*mura*' (Kano 2000). In the newly enacted post-war municipal system (1947), Village N was

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[354] The population decreased by 60% over the past 60 years, a decrease of 1,442 (139 households) (i.e., from 2,390 (468 households) in 1954 to 948 (329 households) in 2014) (NHDA website).

[355] The population of Village U increased from 454 (129 households) in 2005 to 471 (144 households) in 2015 (Ishikawa Prefectural Government n.d.).

re-established in 1948 as a municipality consisting of ten farming villages, including one newly-settled village. However, in 1954 it was abolished by a merger with five other neighboring villages and became a district constituting the northwestern part of Town K. Furthermore, after a dissolution of one village in the 1960s and incorporation of another village in the 1970s, the district became the northern edge of City A in 2004, into which Town K was merged with one city and two other towns.

Despite the dissolution of District N as an official body, it has persisted as a batch of ten farming villages, each of which has remained autonomously (MAFF Hokuriku Regional Office 2018). For instance, even today two major traditional festivals are held yearly at the district level, while several other smaller festivals are organized at the village level (Shirasaki 2000). Yet, along with the administrative mergers by which the district moved from the Village's center to the northern edge of the new City (i.e., 20 km away from the center of City A), key public facilities (e.g., nursery and elementary schools, a branch office of Japan Agricultural Cooperatives (JA)) were closed and the associated services moved far from residences (City A website).

Social transformation

In response to this marginalization, local volunteers organized a council called N Community Development Promotion Council in 1981 to bring together representatives from each village and to discuss and plan their community development activities at the district level (MAFF Hokuriku Regional Office 2018). Nurturing local consent, the Council undertook several small-scale

development projects (e.g., simple and low-cost land improvement, establishment of a small rice processing facility, improvement of a meeting place).

Due to some frictions between different villages as well as stagnation of its activities, however, the Council reorganized itself into District N Hometown Development Association (NHDA) in 1992 by involving other groups (e.g., a commerce and industry association, an association of people from the District but residing in metropolitan regions). Setting the key phrase as "ten villages as one," the NHDA extended its activities to include internal and external exchange and sales promotion projects (e.g., development of a brand-name spring water park, annual drama contests, regularly-held competitive exhibitions of farm products). Further, since 2008 the NHDA has hosted scholars and students from universities from both inside and outside the prefecture. Learning from these visits, it has taken on new initiatives such as branding of local produces and tourism activities in order to tackle the remaining problems such as agricultural income decline and shortage of successors.

Economic transformation

Agriculture and forestry used to support the local economy but became in crisis. As District N is said to derive its name from the term of a logger who uses a 'bush hook,' forestry prospered for hundreds of years but has declined since the early 1960s along with the import liberalization of timber (NHDA website). Until the early 1970s, diversified farming was widely practiced, including rice as a key product but also timber, cattle, and tobacco. Against a backdrop of agricultural mechanization, road network development, and automobile popularization, however,

the farming population whose main income source comes from other jobs (i.e., part-time farmers in the second-rank classification) rapidly increased from around 1970 (Kano 2000). Besides the continuous decrease in the total number of households, the proportions of both farming and forestry households have continuously decreased, but the number of full-time farming households has increased in some of the villages since around 1980s (Kano 2000). This is assumed to be a transformation of part-time farmers to full-time farmers upon their retirement from other jobs.

In addition, the trends of economic decline and demographic changes have differed across the villages. The villages in the upper-stream area, which relied more on forestry, have experienced a rapid decrease in population and paddy farmland since the 1970s. Those in the lower-stream area underwent much less reduction in population and paddy area.

Ecological transformation

In an effort to improve farming efficiency, the district has pursued a series of farmland improvement projects to overcome the hilly and mountainous topologies. Within the district, the central southern area features largely 'agrarian' landscapes encompassing rice paddies and hilly hinterland along the wider valley in the middle basin of a river. The surrounding area exhibits mostly 'mountainous' landscapes with limited space for rice paddies in the narrow valleys along the upstream and tributaries of the river. The villages in both agrarian and mountainous areas undertook the first round of land improvement projects mostly in the 1960s and 1970s, resulting in approximately 200ha of improved paddy farmland (cf., 223ha of the total in the district as of 1980) (Kano 2000; MAFF Hokuriku Regional Office 2018; NHDA n.d.). Of the improved land

134 ha is subject to the Direct Payment System to Hilly and Mountainous Areas (DPSHMA) and each village has pursued collective farmland maintenance activities with government subsidies (e.g., weeding on slopes of terraced paddies, maintenance and repair of irrigation ditches) (MAFF Hokuriku Regional Office 2018).

Moreover, following further progress in agricultural mechanization as well as in agricultural abandonment, the 'agrarian' villages in the central southern area have engaged in a second round of land improvement projects since 2013 to further enlarge paddy plots for better efficiency (NHDA n.d.). Others in the mountainous area, however, have not participated due to the difficulties of resolving agricultural abandonment with land improvement.

4.1.2 Village U

Village U has long maintained cohesiveness and autonomy as a community. Originating from an 'early-modern village' presumably established around the middle of Heian Period (794-1192) (Kawa 1956), its self-sustaining and governing activities have persisted, and they are organized in the neighborhood association (*chonai-kai*). Similarly to many other villages in rural regions, it has also gone through two mergers (1956, 2005) under the post-war municipal system (since 1947) and has come to form the southwest area of City B, while a conglomerate of several early-modern villages changed in composition and name even before the first Meiji municipal system (1889) and has been defunct (Kawa 1956).

Many community activities have been traditionally organized on the scale of the village, including same-generation clubs (ranging from the children's club to the club of the elderly) and annual festivals centering on the village's tutelary shrine (Editorial Committee of U Village

History 1995). In particular, the agricultural cooperative, called “Our Cooperative” (dialectally *Urara no kunme*), had been a cornerstone of the agrarian villagers’ livelihoods for over a century by offering services for daily essentials and venues for neighborhood communication and recreation (Executive Committee for JA-U Centennial Anniversary 2007; Editorial Committee of U Village History 1995). In its heyday, this cooperative was a political foothold to collectively extend the farmers’ needs and claims and exert influence on national policy. At the rice price conference of Ishikawa Prefecture in 1962, approximately 100 farmers from the cooperative ran up to the stage and urged a prompt decision on the emergency resolution to double the rice price against the national policy aiming to depress it (Executive Committee for JA-U Centennial Anniversary 2007).

Social transformation

This agrarian community has become gradually urbanized since the rapid economic growth of the 1960s (Editorial Committee of U Village History 1995), and accordingly its social integrity has transformed from an agrarian-based one to the suburban one. Along with the increase in dual occupations and tenancy arrangements in farming, the features of food, clothing and shelter have drastically changed, particularly losing the elements associated with farming (e.g., rice-husk staffed pillows, sweet stuff made of remaining seed rice, an earthen floor available for agricultural tasks)(Editorial Committee of U Village History 1995). Although many of the village’s year-round events and customs used to be traditionally related to the farming seasons, some of the collaborative activities (e.g., collective rice transplanting) has transformed into household-level practices (Editorial Committee of U Village History 1995).

In particular, the aforementioned agricultural cooperative went through two mergers (1975, 1999) following broad socio-economic changes (Executive Committee for JA-U Centennial Anniversary 2007). Further, to reinforce the management base of the Japan Agricultural Cooperatives (JA) and streamline the operations of the JA's facilities, the cooperative, which originated in 1909 and reorganized lastly as a branch of the JA-BX, closed in 2006 and an anchorage of the agrarian livelihoods and politics disappeared from the village (Executive Committee for JA-U Centennial Anniversary 2007). Contrariwise, as a part of the western area of City B where urbanization has largely advanced (Mashima et al. 2011), the village has been increasingly populated with younger generations, also owing to the revision of the land use planning in 2013 (City B 2016b).[356]

Economic transformation

The economic underpinning of the village has shifted from the local industries in the village to other industries outside the village. Besides agriculture, the businesses and industries related to *Kutani-yaki* (i.e., traditional famed porcelain of the Kaga region) had prospered at least until the 1990s, as the village has been a center of the painting industry for *Kutani-yaki* since the end of WWII (Koda 1975; Bank of Japan Kanazawa Branch 2012).[357] However, these industries declined after the economic bubble burst in the early 1990s, following the inflow of cheaper

[356] The post-war population of U Village first increased and peaked around the mid 1980s (i.e., an increase from 520 (96 households) in 1945 to 655 (136 households) in 1985) (Editorial Committee of U Village History 1995). Although it had been slightly decreasing after the peak, the recent statistics show an increase (i.e., from 558 in 2010 to 577 in 2015) and the estimate of the future population increase with the revision of land use planning (i.e. doubling the population in 2010 towards 2060 (1,111) (Editorial Committee of U Village History 1995; City B 2016b; City B 2016a).

[357] The share of households engaging in the businesses and industries related to *Kutani-yaki* in the village increased from 19% (20 out of 105) in 1955 to 30% (40 out of 133) in 1994 (Kawa 1956; Editorial Committee of U Village History 1995).

foreign products and decreased interest in traditional crafts particularly among the young generations (Bank of Japan Kanazawa Branch 2012).

Moreover, the population of full-time farmers radically decreased between the 1960s and the 1990s. Instead, part-time farmers increased: they relied on *Kutani-yaki* industries (until the mid 1990s) and corporate employment, and engaged in farming only on weekends. Along with the decline of the *Kutani-yaki* industries, employment procured outside the village has become more dominant. The share of the farming households was 13% as of 2015, out of which were two full-time farming households.[358]

Ecological transformation

The village has long battled against water damages to secure its farmland. Village U is said to be named for the legend that a passing old man exhorted villagers to develop a 'cow-shaped island' between two rivers by farming with cows so as to take advantage of abundant water supply (Kawa 1956; Editorial Committee of U Village History 1995). The village is located between one river north and another river south, at the south end of alluvial fan of a racing large river and has continuously suffered from floods (Editorial Committee of U Village History 1995).

Resulting from flooding and submergence, the social turmoils in the village and the disputes with other villages on the upper and lower streams used to repeat. These challenges

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[358] In the mid 1950s, the share of households engaging in farming was approximately 70% (i.e., 69 out of the total of 100 households in 1954) (Koda 1975), and more than 80% of those farming households primarily relied on farming (i.e., 58 households out of the total of 105 in 1955) (Koda 1975; Editorial Committee of U Village History 1995). However, in the 1990s, the share of farming households was approximately 30% (i.e., 40 out of the total of 133 in 1994): most of the farmers primarily engaged in *Kutani-yaki* industries and company employment, while those who managed farming primarily 'in business' became less than five farming households (Editorial Committee of U Village History 1995). As of 2015, out of the total of households (144) (Ishikawa Prefectural Government n.d.), 19 were farming households — including 2 full-time, and 17 part-time (including 2 part-time farmers of the first-rank classification whose main income source comes from farming; and 15 part-time farmers of the second-rank classification whose main income source comes not from farming, but from other jobs) (MAFF 2016d).

lasted even after the 16-year effort of land improvement (1918-1934), which involved the development of drainage channels and the enlargement of a paddy unit (6.7a as a standard), and the installation of a cutting-edge drainage pump in the early 1960s (Editorial Committee of U Village History 1995). Finally the land improvement project in the 1990s freed the village from flood damages (Editorial Committee of U Village History 1995; Executive Committee for JA-U Centennial Anniversary 2007).

This recent land improvement project offered multiple benefits. Besides overcoming the long-standing water problem, the project allowed for better agricultural efficiency as well as agricultural policy implementation. The enlargement of a paddy unit with land improvement had been long-sought particularly by full-time farmers who expanded mainly through tenancy since the late 1960s (Editorial Committee of U Village History 1995). Also, the policy for rice-crop conversion, which has been strongly promoted since the 1970s, heightened the need to improve the wet paddies of heavy clay soil to productively grow field crops such as wheat and soybeans.

Taking advantage of the government subsidies, the village completed an extensive land improvement project in 1999 to hold much larger paddy units (i.e., 0.3 ha as a standard) with the state-of-the-art drainage system as well as an embankment against flooding.[359] Although the process for local consent on the project took considerable time, the precursors of the neighboring villages stimulated the village to achieve 95% agreement among landowners in 1986 (Editorial Committee of U Village History 1995). Furthermore, in addition to the government subsidiary support, the disposal of a part of farmland in the village to the road development allowed for

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[359] The scale expansion has been promoted by the series of the national agricultural structure improvement projects (*Nogyo kozo kaizen jigyo*), which started in the early 1960s to advance agricultural productivity and farm income (Editorial Committee of U Village History 1995). The subsidiary support was given by the national, prefectural, and municipal governments (47.4%, 27.5% and 17.5% respectively) (Editorial Committee of U Village History 1995).

almost no cost sharing on the part of farmers/landowners, which further facilitated land improvement (1990-1999) (Goto 2016; Kawabata and Takemoto 2010). The project's completion brought about efficient farming, policy implementation and water risk management all at once.

Despite these improvements, the village has recently faced a declining need for farmland. The area of cultivated land decreased over a decade between 2005 and 2015, while that of abandoned farmland increased.[360] In particular, given the increasing need for land uses other than agriculture (e.g., residential development), the city government discussed in its urban planning committee whether to relax the control of land-use change and partially loosened the control in 2013 (see Chapter 6 for further details).

4.2 Pathways to Tenancy Arrangements

Having been situated in the distinctive socio-economic and environmental settings, the two communities have arrived at the contrasting levels of adoption of the FB program. District N has participated extensively in the program and in return received subsidies for collective use in the community. Village U barely adopted the program and subsidies were given to a few individual retired farmers. These different modes of adoption have evolved around the development of key farmers or farm bodies which host tenancy arrangements.

4.2.1 District N

[360] Over the 10 years between 2005 and 2015, although the farmland area registered in the farmland ledger remained the same (73ha), the area of operating cultivated land ('*keiei kochi',* i.e., the land farmers actually cultivate, including owned land and rented land) decreased from 58.93 ha in 2005 to 55.17 ha in 2015, while the abandoned farmland area increased from 0.02 ha in 2005 to 0.27 ha in 2015 (MAFF 2006a; MAFF 2016d).

District N's de facto participation in the FB program since 2015 coincided with the expansion and reorganization of community-based farming accompanied by the second round of land improvement projects. By taking advantage of the projects, incorporation of the district-wide community-based farming allowed for hosting the program in the district. A key host is a legally-qualified Agricultural Producers' Cooperative Corporation, called Farm N, that was officially established in January of 2015 after two-year long discussions at the District N Hometown Development Association (NHDA).

Prior to district-level incorporation, community-based farming practices had progressed to a greater extent in NI village, one of the ten villages in the district. Six of the largest landed farmers in the village, who owned approximately 1 ha each, cooperated with each other and organized themselves in 1978 to form a voluntary group of collective farming. This group was formalized as a legally qualified Agricultural Producers' Cooperative Corporation called Village NI Agricultural Machine Use Cooperative (NI Cooperative) in January of 1987, the predecessor of the Farm N.

Development of community-based farming

The six farmers in the absence of immediate successors in Village NI began to cooperate. They strategically drew on government support in adopting the Town K's Communal Farming Group Development Program (INATO 2014b). This municipal program followed the national policy for regional agriculture to lower the production cost by collectively using agricultural machinery (Odagiri 2005; H. Kumagai 2001; T. Kobayashi 1992). As host of the program, the group installed several agricultural machines with the subsidy.

Even more than this subsidiary support, however, one of the founders' sons stressed that they were motivated by their strong commitment to farming as a main means to make a living (Interview with a farmer on November 7, 2016). According to him, the founders set their minds with a competitive spirit towards neighboring villages. The landscape of Village NI consisted of a larger proportion of dry fields in addition to rice paddies, and this disallowed many villagers from engaging in jobs other than farming, because of their time involved in growing different crops consecutively throughout the seasons. While envious of economic affluence in other villages where farmers made steady income from other jobs and spared time only for rice paddies, they prepared themselves for farming both dry and rice paddy fields to make a living. The NI's village's commitment to farming is also exemplified by its initiative to carry out their first land improvement project without governmental subsidies.

Based on the mechanical capacity, this group institutionally grew with scale expansion. It started with approximately 6 ha (i.e., about 1 ha from each of the 6 members) in 1978, but rapidly extended its farming area by accommodating neighbors' requests not only from NI but also from other villages. With the available agricultural machines, the group was initially requested by neighboring farmers through consignment contracts to assist in some of the three key farming practices (i.e., plowing, rice planting, and mowing). The neighbors additionally asked the group to care for other rice farming practices. Around 1980 its biggest income source became contract farming.

For management stabilization, in 1983 the group also began processing and sales of its agricultural products based on the activities of an internal women's group. With favorable growth of sales, it was reorganized in 1987 as an Agricultural Producers' Cooperative Corporation (i.e.,

NI Cooperative). As a formal institution, it expanded its farming area through the ‘use rights setting’ for farmland, rather than temporal consignment contracts for farming practices. By taking over farming from other farmers incapacitated by aging and/or mechanical troubles, NI Cooperative enlarged its farming area to 15 ha by 1998 and 20 ha by 2008, and then to 27ha in 2015.

Building on the NI Cooperative’s achievement, since 2013 the NHDA has developed the idea of district-level community-based farming in combination with the second round of land improvement projects. This led to the incorporation of Farm N in 2015. Catching the momentum that has gathered since 2008, the NHDA secretariat proposed a survival strategy to improve farming efficiency through both district-based communal farming and land improvement so as to overcome the farm retirement of an aging population. Without strong opposition, most of the farmland owners in four villages including NI and neighboring villages (i.e., KI, KH, and KG), agreed to undertake land improvement projects and entrust their farmland to a newly incorporated organization and a few other large farmers.

While changing the prefix from the village name to the district name to strengthen a sense of solidarity at the district level, the organization became an Agricultural Producers’ Cooperative Corporation, rather than a stock corporation, to secure one voting right for each member for a fair hearing in management and at the same time to give a fellowship image for sales promotion in marketing their products. Following the prefectural selection of land improvement projects in the four hamlets (i.e., NJ and NI selected in 2013, and NH and NG in 2014), the Farm N was formally launched in 2015.

Direct call for the FB program

District N was directly approached by the prefectural government at the end of 2014 to take advantage of the FB program. Prior to this, the four hamlets had planned to pursue the 'use rights setting' under the Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act) between the land owners and the Farm N upon the completion of the land improvement projects. Despite the start of the FB program in April 2014, nobody in the District had been well informed until the NHDA secretariat was encouraged by the prefectural government to adopt the program by the end of fiscal 2014 (i.e., March 2015). The secretariat speculated that the prefectural authority was pressed with national policy adjustment, by which the program budget for each prefecture became allocated in accordance with the prefectural performance of program implementation (Interview with a farmer on November 7, 2016).[361] As another factor leading to the direct approach, one of the NI Cooperative members alluded to the prefecture's familiarity with and trust of the district which has adopted a variety of programs and projects and has performed well (Interview with a farmer on November 10, 2016).

In combination with the development of collective farming as well as the land improvement projects, the FB program has facilitated farmland aggregation and consolidation not only in these four villages but also in three others. While looking for a means to have the Farm N prepared for the capital investment (estimated worth of nearly JPY 100 million, i.e., approximately USD 0.9 million), the NHDA found an interest in the high-price subsidy for

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361 The national government announced its prioritization of budget allocation for land improvement projects to the regions that adopt the FB program in order to promote the FB program in combination with land improvement, according to the notice provided by the Ministry of Agriculture, Forestry and Fisheries (MAFF) in October 2014 (MAFF 2017f). Based on the evaluation of the first-year implementation, the national government publicized its policy that the prefectural performance shall be ranked based on the program's 'contribution ratio' to farmland aggregation and accordingly supported by the state (Kobari 2015; MAFF 2015a). The 'contribution ratio' means the percentage of the area of farmland that is annually aggregated and contacted out to the FB in each prefecture (i.e., the FB's contribution) to the annual target area for farmland aggregation in each prefecture that is predetermined by the national government (i.e., the goal of farmland aggregation).

collective use. Given the short period of time remaining in the fiscal year and the condition of more generous subsidy if a higher 'aggregation ratio' (i.e., the percentage of farmland contracted out to the FB in a certain area) was achieved sooner, the villagers from the four villages repeatedly met to take advantage of this subsidy.[362] In addition to coordination efforts by the NHDA secretariat, the preparatory work for the land improvement projects proved effective, particularly in terms of the local consent on farmland aggregation and the inheritance procedures, to quickly adopt the FB program. The four villages attained high aggregation rates ranging between 80% and 92% (see Table 4.1). Receiving the total of JPY 22 million (approximately USD 0.2 million) in the four hamlets, the villagers decided to use half of it for the capital investment of Farm N and the remaining half for other community purposes (e.g., the improvement of communal agricultural facilities). Following this advantageous program adoption, the neighboring three villages were planning to apply for land improvement projects and participate in the FB program.

[362] See Chapter 3 for the detail criteria of the subsidiary rates under the FB program.

Table 4.1 The Status of Land Improvement in District N (1950s-2015)

Villages	Farm households in 2008	Large farm households in 2008 [1)]	1st round of land improvement (beneficiary area, year)	2nd round of land improvement (beneficiary area, year)	Farmland (ha) in 2015	Tenancy (ha) in 2015 [3)]	Aggregation ratio [3)]
NA	18	0	12 ha (1976-1978)	No plan	NA	NA	NA
NB	77	0	44ha (1974-1979) 11ha (1978-1980)	No plan	NA	NA	NA
NC	72	3 households	41ha (1969-1971)	50 ha pending for selection in fiscal 2018	46.7 ha	28 ha	NA
ND	20	1 households	11ha (1970-1971)		10.8 ha	9 ha	NA
NE	5	0	3ha (1970-1971)	No plan	NA	NA	NA
NF	64	2 households	31ha (1965-1969) 6ha (1978-1979)	32 ha pending for selection in fiscal 2018	33.4 ha	25 ha	NA
NG	32	0	15ha (1967-1970) 2ha (1980-1981)	28 ha (selected in fiscal 2014, construction started in fiscal 2015)	19.2 ha	15.5 ha	80.7% (Oct 2015)
NH	20	0	13ha (1965-1968)		14.2 ha	12.7 ha	89.0% (Oct 2015)
NI	20	1 corporation	11ha (1963-1965) 7ha (1981-1982)	31 ha (selected in fiscal 2013, construction started in fiscal 2014)	21.4 ha	18.7 ha	87.4% (Dec 2015)
NJ	33	0	15ha (1958-1960) 2ha (1984)		20.1 ha	18.5 ha	92.0% (Mar 2015)

Source: NHDA (n.d.)
Notes: 1) Large farm households are those who cultivate farmland with an area over 3ha, irrespective of their status of a certified farmer or not. 2) Data of NC, ND, and NF shows the area of tenancy made under the PIAMF Act and through informal contracts, while data of NG, NH, NI, and NJ shows the area of tenancy made through the FB program. 3) Aggregation ratio is referred to as the percentage of the area of farmland contacted out to the FB to the total farmland area. The dates in the round brackets show the dates of contract with the FB.

4.2.2 Village U

Village U's participation in the FB program has been limited, although farmland aggregation has been long pursued by a few larger farmers. While the proportion of part-time and non-farmers has increased, a handful of farmers since the mid 1960s have expanded farms mostly through tenancy. Some of those involved in the expansion have continued to grow, while others have shrunk or disappeared due to aging and the absence of successors. In addition, a farming union was organized in 2006 and has recently gained momentum, but has not yet been officially incorporated (Goto 2016). A few individual farmers have used the FB program by which landed farmers received subsidiaries for individual use upon their farm retirement.

Long-standing independent farming and emerging communal farming

Farmland aggregation by several individual farmers has not been confined to Village U but has involved its neighboring Village S. Following the boosting of *Kutani-yaki* industry, Village S experienced a decrease of farming population earlier than Village U, while holding no farmer managing farmland larger than 3 ha even in 1970 (Goto 2016; Ando, Yamaura, and Ohnaka 2013). With this availability of farmland in the neighboring village, many of the farmers in Village U interested in expansion started to seek farmland there mostly through tenancy but sometimes by purchase (Goto 2016). For instance, as of 2003, the largest farmer in Village U, who pioneered expansion in the mid 1960s, held a higher proportion of both landed and leased properties in Village S than in Village U (Goto 2016). Among the three largest farmers, the first two (cultivated acreage: 38 ha and 9 ha) procured the tenancy area from Village S for more than a half of it (i.e., 74% and 57% respectively), while the third (cultivated acreage: 8ha) did so from

Village S for 5% of it (Goto 2016, 335). The third one, as the 'head family,'[363] had many relatives in Village U, and thus held a much larger share of tenancy based on kinship within the village (Goto 2016). The destination of tenancy for scale expansion has been otherwise skewed towards Village S.

Tenancy has also developed within Village U, dividing the farmers' community into a larger non-farmer cohort and a smaller farmer one. The farming population has decreased since 1960 and the proportion of non-farmers increased from 15% in 1960 to 87% in 2015 (see Table 4.2). In particular, the number of full-time farm households has been few since the 1970s, although a slight increase occurred due to post-retirement return to full-time farming since the mid 1990s (Goto 2016). With this demographic shift, the number of small famers decreased since 1960 (i.e., first the farmers with farmland less than 0.5 ha since the 1960s and then those between 0.5-1.0 ha since the 1970s), the proportion of large farmers has increased since 1970 (i.e., first those larger than 3ha since the 1970s and then those larger than 5ha since mid 1980s) (Goto 2016). By the turn of the 21st century, the five largest farmers with the area larger than 3.5 ha farmed approximately 40% of the village's farmland (Goto 2016).

[363] The term 'head family' is defined and discussed in Chapter 2.

Table 4.2 Trends of Farm Households in U Village (1960-2015)

	Total households (HHs)	Total farm HHs (commercial farm HHs)	Full-time farm HHs	Part-time farm HHs of the fist-rank classification	Part-time farm HHs of the second-rank classification	Non-farm HHs	Ratio of total farm HHs to non-farm HHs (%)
1960	106	90	16	24	50	16	84.9
1965	100	88	NA	NA	NA	12	88.0
1970	115	72	0	28	44	43	62.6
1975	NA	55	1	10	44	NA	NA
1980	133	45	1	14	30	88	33.8
1985	NA	47	2	13	32	NA	NA
1990	136	37 (37)	2	8	27	99	27.2
1995	NA	33 (33)	4	10	19	NA	NA
2000	137	30 (29)	1	4	25	107	21.9
2005	129	24 (24)	1	6	17	105	18.6
2010	126	21 (21)	4	1	16	105	16.7
2015	144	19 (19)	2	2	15	125	13.2

Source: Goto (2016); Rural Community Cards of Census of Agriculture and Forestry in Japan

Along with scale expansion, these large farmers sought to consolidate farmland and overcome the inefficiency resulting from dispersed small paddies. This problem was resolved partially by the farmers' exchange of tenures in the mid 1950s, but largely by physical land improvement in the 1990s. First, under the prefectural eight-year plan of tenure exchange for 30,000 ha (i.e., a half of the prefectural farmland areas) (1950-1957), the village undertook the tenure exchange project in 1953 by which 46% of the farm households consolidated 7.8% of the cultivated area resulting in 14% decrease of paddy units (Goto 2016).

With progress in tenancy, the large farmers amplified their needs for more radical improvement to reverse the declining efficiency. In particular, the unpremeditated development of tenancy allowed for dispersed and disadvantageous paddies (Goto 2016; Kawabata and

Takemoto 2010). At the same time, the small wet paddies (0.067 ha in area) surrounded by narrow farm roads (1.8 m in width) not only prevented tenants from taking advantage of agricultural mechanization but also forced them into a heavy workload. With increased awareness of the roles of the large farmers, the village undertook land improvement towards the end of the last century, resulting in larger paddy units (0.3 ha) — which can be further enlarged, if needed, by clearing levees on farmland (up to 6.3 ha at a maximum) — with a centralized and automated control system of drainage (Goto 2016). This eased farmland consolidation, but further facilitated divergence between farmers and non-farmers (Goto 2016).

Besides the progress of individual large farmers, communal farming has evolved to crop conversion not rice production. The host of the communal farming was the Productive Association of the farmers in the village. Since its establishment in 1923, this association has pursued collective farmland maintenance activities (e.g., cleaning of drainage channels, weeding on farm roads) and also coordinated different interests of the farmers and neighboring villages for agricultural development projects (Editorial Committee of U Village History 1995). In response to the rice acreage reduction policy, which began in earnest in 1970, the Productive Association has made an effort to fulfill the crop conversion quota.[364] After the completion of land improvement in 1999, the association initiated collective crop rotation by consolidating the improved paddies to produce barley and soybeans so as to meet the quota requirement and avoid replant failure (Nakawatari 2009; Goto 2016). Despite the communal initiative, the collective crop rotation, which was entrusted to the association, has been undertaken by a few large farmers

[364] The rice acreage reduction policy has designated a specific quota of rice acreage reduction with crop conversion for each agrarian village since the 1970s (Editorial Committee of U Village History 1995; Nakawatari 2009).

with mechanical and farming capacities (Goto 2016). As such, villagers' participation in communal farming has been limited.

The widening gap between farmers and non-farmers has become a threat to tenancy arrangements, undermining non-farmers' understanding and cooperation for farming. In fact, many of the non-farmers are farmland owners, but rely on tenants for farming, for which rent is a common ground to meet each party's interests in farmland. In order to cope with agricultural downturn, tenants have pursued the lowering of rent to reflect the price of agricultural produce. With the decreasing awareness of farming among non-farmers, however, tenants found it difficult to adjust rent in accordance with the agricultural market (Goto 2016). They have found themselves in tougher negotiations than before with non-farmers holding farmland but often lacking an accurate picture of the farming sector.

In response, there have been new initiatives since around 2000 to revive a communal bond for farming in the village. The Productive Association initiated an annual harvest festival in the village in 2000 to boost social integrity (Goto 2016). Furthermore, the Farming Union was formed in 2006 to develop a local farming system where different types of farmers can co-prosper, including part-time farmers, elderly farmers, and large full-time framers (Goto 2016; Kanda and Terabayashi 2013). Despite the initial intention to build on land improvement and enhance local agriculture, it became a means to take advantage of subsidies that were rendered for village-based farming organizations through the political initiative of the rice policy reform. The formation of the Union began with the initiative of the Productive Association consisting of all the farmers in the village. However, two large farms withdrew to let the Union focus on mutual support among small and medium-sized family-owned farms of part-time or elderly

farmers. Reorganized to consist of 15 farming households, it has become responsible for collective farming of barley cropping as part of a crop conversion effort (Goto 2016).

With the emergence of the Farming Union, the farmland in the village has become aggregated into a few large full-time farmers, and the members of the Farming Union. As of 2013, the total area under cultivation by the 15 union members was approximately 30ha, the second largest in the village, following the largest farmer (42.5ha) (Goto 2016). The union has undertaken collective farming for crop conversion while having been under discussion on more complete communal farming including rice cultivation in an attempt to sustain continuous farming by small, elderly or part-time farmers. Between 2003 and 2013, among the six largest farming households, some receded from scale expansion in the absence of successors while others grew in farm size (Goto 2016). Thus, rather than the continuous development by the same few large farmers, generational turnover led to participation of a few smaller farmers in farmland aggregation.

Limited Adoption of the FB program

The adoption of the FB program in the village is limited and only in an individual form. For the first two fiscal years in 2014 and 2015, three landed farmers contracted out their farmland to the FB that sublet their land to three different farmers in the village. On the one hand, the landlords who retired from farming lent out all of their paddies to the FB and in return received farm retirement funds. To host the program, on the other, three other farmers were entrusted by the FB to manage the paddies that had been previously cultivated and are presently owned by the retired

farmers (i.e., the landlords). These hosts (i.e., subtenant farmers) were the one large, incorporated farm and two members of the Farming Union.

Several qualified farmers hosted the FB program in the village, but the program was adopted only on an individual form. As of May 2016, qualified farmers for hosting the FB program (i.e., those listed on the CAMP plan) included 11 farmers (i.e., 2 large farmers and 9 union members). Although the Farming Union has a mission of community-based farming, its members can be contracted out through tenancy only on an individual basis rather than collectively, since it has not been legally incorporated.

4.3 Conclusion

Communal farming has been a key to extensive, collective adoption of the FB program. In District N, the historic development of community-based farming allowed for incorporation of a legally-qualified Agricultural Producers' Cooperative Corporation at the district level capable of hosting most of the tenancy arrangements under the FB program. Without other available jobs, six large farmers joined together to economize their agricultural resources (e.g., machines, labor). At the same time, the composition of dry and rice paddy fields in a village forged the competitive spirit to form the communal farming in the village and thrive on farming over its neighboring villages. The communal farming in this single village has been transformed into an inclusive one, as metaphorically expressed in the slogan "ten villages as one," to collectively overcome the challenges facing the district. In addition, years of working relationships between the prefectural authority and the organized district led the former to approach the latter for program implementation.

In Village U, communal farming has been emerging, but has not been organized as a legally-qualified body to host the FB program. Albeit the recent initiatives to revive communal bonds, the village has developed independent, individual farming. Under the changing trend of local industries as well as the suburbanization, a handful of large farmers opted for scale expansion to take advantage of their agricultural resources. Considerable collective efforts have been made within the historically agrarian cohesive village to improve the farming resources through land improvement, exchange of tenures, and water control. However, farming has been managed largely on a household basis, though interests in rejuvenating communal practices have been growing to cope with the declining agricultural sector and respond to new policies (e.g., crop conversion, rice policy reform) particularly in the face of the divergence between farmers and non-farmers. Nevertheless, without a formal body of communal farming, the FB program incentivized landed farmers to retire from farming in exchange for retirement funds, but offered no economic incentive for independent tenant farmers who housed tenancy arrangements regardless of the FB program.

In these two different communities, how and why have individual farmers accepted or resisted the FB program? District N as a whole has collectively adopted the program, but each village has made different progress in adoption. Moreover, the level of participation in the program has differed among individual farmers even within a village. Village U has pursued individual adoption with only three cases, but many farmers have been involved in tenancy arrangements other than the FB program. The next two chapters examine the individuals' attitude to the program so as to tease out the processes of negotiations leading to either their corporation or indifference to the FB program.

Chapter 5: Farmers' Participation in the Farmland Bank Program in a Hilly Rural Community in the North

This chapter focuses on District N, a hilly rural community in Noto region of Ishikawa Prefecture, to delve into the farmers' participation in the Farmland Bank (FB) program. It first delineates the status of farmland owners' participation across different villages and examines the main drivers of collective participation. Second, it explicates different levels and modes of participation (including farmers holding farmland but not engaging in farming) across individual respondents, and then reveals their motivations for participation. Finally, it scrutinizes immediate and future challenges that farmers were concerned about in adopting the FB program.

5.1 Collective Participation in the FB Program

The status of participation in the FB program varies across different villages, depending on the progress of land improvement projects. This is because program adoption is practically combined with village initiatives for land improvement. To meet a subsidiary condition of the size of a beneficiary area for land improvement, a couple of villages have been grouped into one project zone where the FB program for tenancy has been adopted upon completion of improvement work.

At the time of my survey that was intensively conducted in November and December 2016, land improvement projects were underway in four villages that were grouped into two zones (i.e., Zone A consisting of Villages NJ and NI with a beneficiary area of 30.1ha, and Zone B consisting of Villages NH and NG with the area of 27.9ha), where specific tenancy arrangements were already made under the FB program. The initiatives in three other villages,

however, had not yet begun, though they were planned to be chosen in fiscal 2018 as prefectural land improvement projects in two zones (i.e., Zone C consisting of Villages NC and ND with a beneficiary area of 51.8ha, and Zone D of Village NF with that of 27.8ha). Thus, these three villages had a broad-blush plan for tenancy arrangements but had not detailed it yet to adopt the FB program.

Based on the interviews across the seven villages (see Table 5.1), this section examines the status and drivers of collective participation in the program in two categorical areas: the zones currently involved in the land improvement projects, and those planned to be involved. For each area, I first explicate the village-wide status of involvement.

Table 5.1 Status of the Land Improvement Projects Combined with the FB Program

Initiatives	Zone	Village	Land Improvement Projects [1), 2), 3)]			
			Work Duration & Status (as of December 2016)	Beneficiary Area	Project Cost	Ratio of Agreement
Underway	**A**	**NJ** **NI**	• Duration: fiscal 2013 - 2018 (applied on 12/4/2012 and selected on 1/29/2013) • Status: Land leveling completed in NJ and remained for a half in NI	30.1ha	JPY 592 million (Approx. USD 5.21 million)	98.9% (86 out of 87 HHs)
	B	**NH** **NG**	• Duration: fiscal 2014 - 2019 (applied on 2/20/2014 selected on 3/18/2014) • Status: Land leveling was being carried out (a half done in NH)	27.9ha	JPY 480 million (Approx. USD 4.22 million)	94.3% (50 out of 53 HHs)
Planned	**C**	**NC** **ND**	• Duration: fiscal 2019 - 2023 (in a process of application to be selected in fiscal 2018)	51.8ha (planned)	NA	(100% - preliminary agreement as of March 2016)
	D	**NF**	• Duration: fiscal 2019 - 2023 (in a process of application to be selected in fiscal 2018)	27.8ha (planned)	NA	(85%- in progress as of March 2016)

Note: 1) Data on the zones underway are from Ishikawa Prefectural Government (Ishikawa Prefectural Government 2016a, 49, 74; 2016b, 56–57). Data on the planned zones are from a meeting material (distributed at the village meetings on December 8th and 10th, 2016), and NHDA (2016, 6–7). 2) In the neighboring district, District K, the land improvement project for the zone including Villages KK and HD with a beneficiary area of 27.5ha was selected on February 21st in 2012 as a prefectural project to implement the work for the duration between fiscal 2012 and fiscal 2017 based on the 100% agreement among beneficiaries (i.e., 91 out of 91). The project cost amounts to JPY 486 million (approximately USD 4.28 million). 3) With regard to the status of work, the land leveling in Village NJ was completed and available for cultivation (albeit remaining incidental work such as underground drains), while about a half of that in Village NI was completed and available for cultivation. About a half of land leveling in Village NH was being completed and the remaining half planned to be carried out in fiscal 2017 though depending on the budget. About two thirds of land leveling for Village NG were being carried out.

5.1.1 Initiatives underway:

In late 2016, many of the farmland owners in the four villages of the Zones A and B were participating in the FB program. The construction works for land improvement were still underway in the both zones (since 2013 and 2014 respectively), whereas lease agreements between the FB and the tenants were concluded for some lands that were already leveled. According to the interviews with a secretariat coordinator of the N District Hometown Development Association (November 7th 2016 and August 22nd 2018), almost all the landowners across the four villages leased out their farmlands to the FB. Those who did not included the farmers who decided to cultivate their land on their own in the beneficiary areas and those who planned to manage their lands outside of the beneficiary areas for self-sufficiency or conservation purposes. The tenants who leased the improved farmland from the FB were called 'responsible entities.'[365] The major tenant was Farm N into which the long-standing communal farming organization was newly incorporated. While Farm N planned to collectively farm most of the improved land, a few other farmers planned to continue their farm management under the FB program.

To initiate the land improvement projects, the villages at large had agreed and planned on farmland aggregation and consolidation which were also the goals of the FB program.[366] As a prefectural project designed to feed into the national policy goals, a land improvement project is selected only after overcoming the following three challenges: 1) budget allocation by the

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[365] The definition of 'responsible entities' or 'responsible farmers' (*Ninaite*), both of which are interchangeably used in the text, is detailed in Chapter 3 (see footnote 30 in particular). In many cases, they include 'certified farmers' (defined in Chapter 2), community-based farming organizations, and corporate farms.

[366] Farmland aggregation means scale expansion of responsible entities mostly through tenancy, while farmland consolidation means to secure consecutive and uninterrupted farmland managed by a farmer (MAFF 2017h).

prefectural government, 2) meeting subsidiary conditions; and 3) local consent among beneficiaries (i.e., farmland owners). For budget allocation, the District N, as part of the Naka-Noto region of the prefecture, had better opportunities to have a project funded, given that the prefectural government prioritized the region because it lagged behind in land improvement. The subsidiary conditions include: 1) the size of a beneficiary area, 2) farmland consolidation, 3) farmland aggregation, and 4) development of 'responsible entities' (Ishikawa Prefectural Government 2016b).[367] Furthermore, to secure local consent, two thirds of the beneficiaries by law must agree to carry out a project. Local consent on land improvement suggests that the majority of beneficiaries conceptually agree on the FB program adoption.

Local consent in the two zones was more than sufficient to apply for a project. Although project selection legally requires consent from more than two-thirds of beneficiaries, the consent percentages reached 98.9% and 94.3% respectively in Zones A and B as of the dates of project application (Ishikawa Prefectural Government 2016b, 56).[368] In general, land improvement is advantageous to local farmers because it generates higher productivity with agricultural infrastructural development and better farm management efficiency (Arimoto and Nakajima 2010). At the same time, it normally requires the project cost to be borne by beneficiaries, while it often causes conflicts of interest among beneficiaries to collectively implement a project. In particular, land improvement mostly involves 'designation of replotting,' by which farmland is

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[367] For example, some of the corresponding requirements for subsidies include: 1) the size of a beneficiary area should be larger than 20ha; 2) a farmland plot larger than 30ha should consist of more than two thirds of a beneficiary area; 3) more than 50% of a beneficiary area should be managed by responsible entities; 4) existing or new responsible farm management entities should be developed by the end of the project (Ishikawa Prefectural Government 2016b, 20).

[368] The ratio of agreement among beneficiaries to prefectural land improvement projects was 99% on average across the nation for three years between 2012 and 2014 (MAFF 2015c).

systematically redistributed among beneficiaries based on collective decision making.[369] This makes local consent tougher as the process of replotting sometimes results in "cleaving of a village," "distrust of people," and "the source of future calamity" (Nakajima and Arimoto 2011, 65). Despite these challenges, why did the four villages achieve high levels of local consent?

The literature has identified the following six major factors facilitating local consent on a land improvement project:1) cost sharing, 2) coordination, 3) needs and interests, 4) a difference in benefits shared among beneficiaries, 5) compromise, and 6) attachment to land. First, a minimum amount of project cost to be borne by beneficiaries is a key to local consent (Nohmi 1995; Y. Sato 1989b). Second, adept coordination among different stakeholders (e.g., steady facilitation by a local leader, consultation by a non-partisan local committee) often makes the process of negotiations and deliberations smoother (Y. Sato 1989b; Shimokouji et al. 2000; Sekino et al. 2000). Third, salient needs for and/or interests in land improvement, particularly if ubiquitously shared among beneficiaries (e.g., high expectation of project effect with clear information, existence of reliable responsible entities, heightened urgency to improve farm environment), are likely to lead to local consent (Nohmi 1995; Y. Sato 1989b; Ishii and Okamoto 2002a). Fourth, as a precondition of this third factor, if a difference in shared benefits is minimized (e.g., more or less equal increase in profitability from a unit area due to homogenous land conditions, compensation for disadvantageous farmers), the initiative is more likely to attain local agreement (Nohmi 1995; Satomura 1992), but otherwise it is unlikely to reach an optimal result (Arimoto and Nakajima 2010; Ishii and Okamoto 2002b). Fifth, if such a difference cannot

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[369] Ishida and Kiminami (1990) define 'designation of replotting' as the work to translocate the rights of ownership, mortgage, superficies, and lease associated with the land prior to a land improvement project on the land after the project in accordance with the transformation of land traits through the project, by identifying the previous land with that post-project land in the eyes of the law.

be minimized, some beneficiaries may compromise, sacrifice or pander their own wills for the majority (e.g., a fraction of a community coming to terms with relatively disadvantageous replotting) (Satomura 1992; Y. Sato 1989b; Ishii and Okamoto 2002a).

Finally, related to the third factor, the beneficiaries' disengagement from farming or detachment from farmland often allows for local consent, whereas their stronger attachment to the status quo can be a hinderance. For instance, farmland owners already lending their lands, if not highly valuing the property of farmland as it is, are more likely to accord with responsible entities for farmland aggregation and consolidation (Ishii and Okamoto 2002a; Ishii and Okamoto 2002b). However, if landowners have a high interest in the status quo (e.g., continuation of farming as it is, holding of the as-is farmland as an asset), they tend to disagree on any change through farmland redistribution (Y. Sato 1989b; Sekino et al. 2000; Arimoto and Nakajima 2010; Makiyama and Yamashita 2015; Ishii 2006; Masaru Morita 1992). In this regard, absentee landlords are ambivalent ones. Besides technical and procedural challenges to obtain consent from absentees who live far from a local community, some show stronger attachment to their lands mostly with a high expectation of the property value of the as-is farmland, and thus uneasily agree on replotting (Sakamoto and Kubo 2010; Choi, Hwang, and Han 1998). Others easily allow for redistribution without much care about farmland based on their disengagement from farming (Sakamoto and Kubo 2010; Choi, Hwang, and Han 1998). In either case, owners' attachment to the as-is farmland highly matters for local consent.

Cost sharing:

In the case of the four villages, these six factors intertwined to facilitate local consent on the land improvement projects and thereby the FB program. First, the national policy for farmland liquidation has minimized the project cost borne by beneficiaries to the extent that subsidiaries conditions are met. Although the ratio of the local cost share slightly differs according to prefectural and municipal governments, that of District N was 5% (i.e., 55% by the national government, 30% by the prefectural government, 10% by the municipal government, and 5% by beneficiaries). In addition, if the subsidiary condition on the farmland accumulation rate[370] is fulfilled 'in planning,' the government provides interest-free loans for up to five-sixths of the local cost share depending on the budgetary status of a prefectural government (MAFF 2008; MAFF 2017d; Ishikawa Prefectural Government 2016b, 13). Moreover, if the farmland accumulation rate improves 'in effect' upon completion of work, an additional subsidy is provided for up to 5% of the project cost according to the improved ratio (MAFF 2008; Ishikawa Prefectural Government 2016b, 14). This means that if all the subsidiary conditions are met, the local beneficiaries only need to pay interest on the interest-bearing loan. In fact, the two zones achieved this minimum cost share by fulfilling all these conditions. The beneficiaries in Zone A, for instance, bear only JPY 177,975 (approximately USD 1,567) in total for the five-year work.[371]

Given past experience in sharing considerable cost among the beneficiaries for the first round of land improvement projects, the minimal cost share was a key, rather than the economic incentive of the FB program, to local consent for the second round. Although the FB program

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[370] The farmland accumulation rate is the percentage of farmland accumulated on responsible entities in a beneficiary area.

[371] The information on the budget and the cost sharing for the land improvement projects in Zone A was shared at the village meetings on December 8th and 10th, 2016.

had a subsidiary option through farm retirement funds, many of the beneficiaries additionally owned farmland outside of the beneficiary area, which was mostly for subsistence or maintenance, not for rental. Thus, they were ineligible for retirement funds, while the FB program offered a collective economic incentive to the community.[372] Nonetheless, it mattered to the beneficiaries whether the prefectural budget would be allocated with the minimum local cost share. Despite the current prefectural focus on the Naka-Noto region, the budget allocation was changeable and sensitive to various factors. For instance, the land-leveling work in Village NJ progressed ahead of schedule with the budget surplus under the administrative change, while that for the other three villages was planned to make slower progress with lesser financing.[373, 374]

Furthermore, compared to past land improvement projects, a former chair of the neighborhood association in Village NH highlighted the importance of the minimum local cost share and explained the indifference to the economic incentives of the FB program (Interview with a farmer on December 9, 2016):

> *I think we're all not much interested in the FB program and not calculating loss and gain specifically from it. … When we did the land improvement project about 45 years ago, the repayment money was as large as several hundred thousand yen. Initially we were worried about the repayment and calculated for it for the current project, but now we know it's little. Even the interest of the loan for repayment per 1 tan (i.e., approx. 0.1 ha) is very little,*

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[372] For instance, Village NJ received over JPY 6 million of a subsidy by meeting the farmland aggregation rate in the FB program, and used a half of it for the capital investment of Farm N (i.e., a responsible entity) and the other half for the infrastructural improvement within the village (e.g., the paving work of the school roads affected by the project, and the maintenance and repair of a meeting place) (Interview with a farmer on December 9, 2016).

[373] Although the local consent on preliminary designation of replotting normally precedes the inception of land-leveling work, the work began with haste only with the general local consent on the land improvement project, given the sudden availability of additional budget which allowed for completion of land-leveling work only for one year, though it had planned to be completed in two years (Interview with a farmer on November 9, 2016).

[374] According to a chair of the neighborhood association in the neighboring district, he was informed by a city official that his village would be allocated with budget in 10-15 years even if his village would start to prepare for a land improvement project shortly (Interview with a farmer on November 10, 2016).

and that's ok to pay out of our own pockets. Other subsidiary systems do likewise. For the direct payment system for mountainous areas as well as the FB program, we're just all right to listen to the state in silence and then do what they say. To many of us, the wishes of not farming on our own come true without bearing much cost. In short, in weighing it in a balance, the burden we have borne becomes zero without bearing a cost for it at our side. That's all there is to it.

Coordination:

District N Hometown Development Association (NHDA) took a lead in coordinating different stakeholders to attain local consent and to start the land improvement projects in the four villages. Since 2010, this association had proposed and prepared for incorporation of Farm N as a main 'responsible entity' for the projects, while it shared and disseminated the initiative across different villages through its systematic networks in the district.[375] In particular, the secretariat coordinator of the NHDA served a dual role of leadership and implementation in facilitating the initiative for land improvement as well as the incorporation of communal farming.[376] Taking advantage of his forty-year experience as a municipal official engaging in agricultural policies and community development projects, the coordinator adeptly facilitated the processes ranging from the participatory problem finding, knowledge and information sharing, and budget procurement, to the project application and follow-ups, often by coordinating with municipal and prefectural governments. For instance, he visited several absentee landlords living in distant cities to explain the project and attain their consent and participation, although this role

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[375] As part of the NHDA, a congress consisting of all the chairs of the ten neighborhood associations (corresponding to the ten villages) in the district, continuously shared and exchanged information across different hamlets in the district (Interview with a farmer on November 9, 2016).

[376] According to the current president of the NHDA, the secretariat coordinator is a 'superman' who has long played both a leading role of a 'flag ship' and a practical role of a 'locomotive' to substantively operationalize the NHDA by devising and facilitating a variety of projects (Interview with a farmer on November 9, 2016).

customarily assumed to fall under the responsibility of landlords' families. As a result, most of them offered their consent, as one of them said to the coordinator "I don't cooperate with my brother, but if my stake hinders the communal initiative, I'll cooperate with you." (Interview with a farmer on November 7, 2016).

In addition, several board members of Land Improvement Districts played a key role in coordinating conflicting interests. A Land Improvement District is an organization of beneficiaries which is normally established prior to project selection to prepare for application and then implement a project in a beneficiary area (Ishii and Okamoto 2002c). Among eleven board members of the Land Improvement District in Village NJ, an area manager handled all the complaints from the beneficiaries about replotting and construction work, while he daily coordinated with five different contractors on site and liaised with the beneficiaries (Interview with a farmer on December 9, 2016). Also, an area manager of Village NG, who had a ten-year experience in administrating land improvement projects as a prefectural official, took the initiative in developing a replotting plan to meet all the subsidiary conditions effectively and at the same time tailor plausible beneficiaries' needs and expectation (Interview with a farmer on December 8, 2016). He then consulted with the beneficiaries to facilitate local consent.

Salient needs and interests:

In response to the call for land improvement from the local leaders, the general atmosphere involved the emerging sense of crisis in farming as well as the reliability of local 'responsible entities' for farmland aggregation and consolidation. Foremost, the concern about the lack of successors was growing along with the continuously shrinking and aging farm population and

looming farm abandonment. Except for Village NI, a few farm households in each village had autonomously managed their paddy farms with a complete set of agricultural machines without relying on other farmers for any of the rice production tasks. Many others had already entrusted partial or full farming practices to their neighbors who were mechanically and physically capable of farming others' farmland.[377] Even the farmers autonomously managing paddies had faced a lack of successors. This situation was associated with the increasing difficulties of part-time farming[378] and the national policy promoting agricultural mechanization and scale expansion.[379] Along with this trend, small farmers were increasingly discouraged from farming on their own, as shown in the results from two questionnaire surveys conducted by the NHDA. The first survey in 2008 of about 300 households in the district found that one-third of the respondents were willing to continue farming after land improvement. Yet, the second survey in 2012 of 90 households in the four hamlets revealed one single respondent willing to continue farming

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[377] Prior to the FB program adoption, in Village NJ, among about 30 farm households, two managed their rice farms independently with a full set of agricultural machines (e.g., a tractor, a rice transplanter, a rice dryer), while a community-base farming organization consisting of 3-4 farmers were entrusted with the practices of raising seedling and rice reaping — most of these and other farmers were the elderly without successors (Interview with a farmer on December 9, 2016). In Village NG, among about 30 farm households, four managed rice farming throughout from rice transplanting to reaping, but other active farmers entrusted some practices (e.g., rice reaping, drying and adjusting while taking care of rice transplanting, weeding and disinfection) to other capable farmers including those from other villages (Interview with a farmer on December 8, 2016). Some respondents stated that in Village NG there was no responsible entity capable of farmland aggregation with successors, while four large farms entered into farming from outside (Interviews with farmers on December 7 and 8, 2016). In Village NH, three out of about 20 farm households independently managed their farmlands, but none of them had a promise in their successors as their children went out to cities and set up houses there (Interview with a farmer on December 9, 2016).

[378] Farming in one's spare time became more difficult than before due to the increasingly inflexible work in many workplaces. One respondent stated that people in his generation (in his 70s) who had a corporate job used to take a leave more freely and secured time for farming in accordance with farming seasons, but the younger generations could be hardly absent from an office for rice reaping for several days given the general working style and the common sense of business (Interview with a farmer on November 8, 2016). Referring to the present as 'the era of long working hours,' another respondent suggested that it would be impossible to have the young generations engaged in farming, who leave home early in the morning and return late at night for work, though the earlier generations were able to farm in morning and evening (Interview with a farmer on November 9, 2016).

[379] Several respondents mentioned that the era of individual farming was over, given the national policy that has continuously supported farmland aggregation and consolidation and subsidized farm expansion and mechanization (Interviews with farmers on November 8, and December 9 and 10, 2016).

(Interview with a farmer on November 7, 2016).[380]At the same time, abandoned rice paddies had started to appear in less favored areas in some of the villages.[381]

Despite the decrease in the number of active farmers, the existence of locally-based responsible entities added to the interest in land improvement. As a major host, Farm N was trusted by many beneficiaries given that it built on a long-standing community farming organization. Presumably, it would be more reliable than an unknown entity which would enter into the district from outside but may leave if it failed. In Village NJ, some of the farmers were initially interested in establishing another village-based farming organization. However, the later introduction of the FB program, which more explicitly required responsible entities for long-term active farming, facilitated the farmland aggregation to Farm N, which was more promising for generational change in terms of farm laborers and mechanical renovation (Interview with a farmer on November 9, 2016). Furthermore, in response to local concerns raised around 2012 about the lack of a clear image of future farm management, the NHDA detailed the plan for farm management, and then determined the management structure of Farm N in late 2014 to be established as a legally-qualified Agricultural Producers' Cooperative Corporation. As such,

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[380] This tendency was observed in the examples mentioned by some respondents. In Village NJ, in April 2010 when a former chair of the association proposed the idea of land improvement, which had not been previously decided, none disagreed with him with the understanding that they were no longer able to manage their farmlands by themselves (Interview with a farmer on December 9, 2016). Moreover, none expressed their willingness to continue farming at the time of consultation with the active farmers for temporal designation of replotting (Interview with a farmer on November 9, 2016). In Village NH, the former chair of the neighborhood association, facilitated the land improvement project from around 2010 without much trouble, but when he proposed the idea to initiate community-based farming around 1995 by evidencing the negative earnings from the individual farming, but it was not agreed given that many farmers managed their farms independently with a full set of machines (Interview with a farmer on December 9, 2016).

[381] There was no abandoned farmland within the 'Agricultural Developing Area' in Village NI (Interview with a farmer on December 10, 2016). However, the rice paddies being wild with 2-meter-high reed grasses had become scattered particularly in the less favored areas in Village NG (Interview with a farmer on December 8, 2016).

together with the sense of crisis in farming, the availability of a local responsible entity was critical to forge the needs and interests of the beneficiaries.[382]

Difference in potential benefits:

Differences in potential benefits did not matter to many of the beneficiaries. This was largely because the majority of beneficiaries planned were already disengaged or planned to disengage from farming and thus not to earn directly from farmland. At the same time, the replotting was arranged and designated within a village where farmland conditions were more or less similar. Yet, there were differences in farmland traits and its surrounding conditions. In fact, concerns of gain and loss were raised among the beneficiaries in some of the villages, but were much less significant compared to the first round of land improvement projects conducted several decades ago. For instance, recalling what he had heard from his farther who was an area manager of the first-round project, the former chair of the neighborhood association in Village NH, who facilitated the second-round one, offered a comparative observation of beneficiaries' reactions to the plan of replotting (Interview with a farmer on December 9, 2016). The first round involved heated conflicts and intense competition among the beneficiaries for farmland with favored conditions such as sunshine, drainage, flatness, and accessibility, particularly in the age of better farm profitability — when the more farmers worked, the more they earned. For the second

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[382] These two elements were also critical to project adoption in the neighboring district. In Villages KK and KH where land improvement preceded, on the one hand, the extent of farm abandonment had been more significant, inflating the sense of crisis in farming in the communities. For instance, about 27% of the rice paddies in Village KK had become wild with plenty of Canada goldenrod, whereas the hilly sections of Village KH had not been farmed for some time — making many of the landowners willing to have others take care of their lands (Interview with a farmer on November 9, 2016). In Village KK, in the absence of a major responsible entity, a community-base farming organization was established to initiate the land improvement project together with the FB program. On the other, the villages without a land improvement project lacked either of these two elements. In Village KYO, rice paddies were well maintained without being surrounded by weeds, owing to the diligent weeding and other maintenance activities by the still active postwar baby-boom generation in the community (Interview with a farmer on November 10, 2016). In Village KYA, despite emerging interests in land improvement, there were neither existing responsible entities nor potential ones (Interview with a farmer on November 10, 2016).

round, although there were numerous likes and dislikes about the potential outcome, those who initially raised such issues ended up with letting their land be managed by whoever, wherever and however.

Differences in farmland did matter to a small number of landed or tenant farmers. If they were programatically-defined 'beneficiaries' (i.e., farmland owners), they were able to participate in the planning processes from the beginning and to negotiate for any arrangements so as not to suffer disadvantages. If not (e.g., a tenant who did not own farmland in the area), they were unable to participate in the negotiations and designation of replotting until they became a formal stakeholder to be contracted out from the FB.[383]

Nevertheless, even without a formal beneficiary status, some tenants who were de facto beneficiaries involved in tenancy, drew on their own contacts with other stakeholders even prior to the stage of making contracts between the FB and tenants. For instance, one farmer in Village NG who was in need of at least 10 ha in total for optimal productivity, negotiated with a local leader of kin to temporarily secure farmland in the course of construction work (Interview with a farmer on December 9, 2016). Once farmland was contracted to the FB, those farmers were able to more boldly negotiate. For instance, having been allocated with improved farmland scattered across different villages, another tenant negotiated and coordinated with other 'responsible entities' as well as local leaders to consolidate farmland in one village, while a final decision was

[383] A respondent who was a responsible farmer but not a landowner in Village NH (residing in the neighboring district) mentioned that he only heard about the processes from his friends who participated in the local meetings, but could join neither formal nor informal meetings to prepare for the project given the absence of his residency in the village (Interview with a farmer on December 7, 2016). Another respondent who was a responsible farmer in village NG but residing in Village NC, also noted his status as a non-landowner unable to attend any preparatory meetings, despite his de-facto stake in the project (Interview with a farmer on December 9, 2016).

made among the landowners as primary beneficiaries (Interview with a farmer on December 7, 2016).[384]

Compromise:

Compromise was not much needed, since many of the beneficiaries were indifferent to any disparity. A few, however, gave way to others to avoid friction in the community. For instance, two board members of the Land Improvement District in Village NJ offered part of their own allotments to facilitate the communal agreement on the project (Interviews with farmers on November 9 and December 9, 2016). The board of the Land Improvement District initially prepared a preliminary plan for designation of replotting with the aim of the greatest common outcome, and presented it for the four-day public inspection in 2014. Although almost all the beneficiaries gave their consent, one landowner disagreed the plan and claimed a different allotment with access to a road. In response, two of the board members shifted their allotments elsewhere to accommodate the request. Also, one landed farmer in Village NJ inevitably needed to accept a disadvantageous allotment. The farmer had planned to continue farming independently and thus was designated with a plot outside of the consolidated farmland.

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[384] The tenant mentioned that the redistribution of the improved land resulted in the most efficient form by consensus, also in accordance with the current agricultural policy (Interview with a farmer on December 7, 2016). Out of the farmland plots for which the tenant planned to make contracts with the FB, he planned to sublet a plot to one landed farmer, who decided to continue farming after the project for a while but not for several decades, so that the subtenant can return the farmland to the original tenant upon his retirement (Interviews with farmers on December 7 and 9, 2016). A landowner in another village also mentioned that his village coordinated with other villages to rearrange the farmland allotments among different tenants for efficiency, also reflecting on tenants' needs (Interview with a farmer on December 8, 2016).

Although he later became unable to continue farming, it was too late to rearrange the replotting and he needed to stick to the original allotment.[385]

Attachment to farmland:

Attachment to farmland was generally insignificant because many of the beneficiaries planned to disengage from farming while letting others farm their land. For the first round, many beneficiaries competed with each other for advantageous replotting for better profits. However, for the second round, many who had already disengaged or planned to retire allowed for replotting at the convenience of 'responsible entities,' rather than sticking to the status-quo or the best individual allotment. Thus, most of the beneficiaries gave silent approval to the preliminary replotting which consolidated their farmlands as close as possible to the original locations.[386] Furthermore, one respondent suspected that the landowners' attachment to farmland would further fade away after land improvement (Interview with a farmer on November 10, 2016):

> *My own farmland is replotted out there downstream where land leveling is going on, but four to five owners are listed for one large plot. There are borders between different owners' lands on a map, but no single nail is driven on an actual field. I can only say my land is around there. …So, our attachment to land will become much less after the project. In fact, the*

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[385] One responsible farmer in Village NG was not given a subsidiary share despite his participation in the FB program, given that the village community differentiated his farm as an independent one from the communal farming entities. Albeit not necessarily in the statutory term, a half of the FB program' subsidy for collective use was usually shared among responsible entities depending on the area of farmland to be contracted out from the FB. This was the case of Village NH where a part of the subsidy (approximately JPY 1.2 million; USD 10.7 thousand) was offered for an independent responsible entity in accordance of the area that entity planned to farm in the hamlet (Interview with a farmer on December 8, 2016).

[386] According to a respondent from Village NH, he shared with other villagers the sentiment that anywhere was fine for replotting, as they would farm no longer on their own, although in the past they had claimed for specific locations for better conditions such as sunshine, drainage, and accessibility (Interview with a farmer on November 8, 2016). Another respondent from Village NH stressed that the land improvement project was for future responsible entities to farm more easily, recalling the quick agreement among the villagers on the plan of replotting developed by the board members given that many of landowners still owned their lands but no longer farmed (Interview with a farmer on December 9, 2016). The respondents from the other villages also provided similar comments (Interviews with farmers on November 9 and 10 and December 8 and 9, 2016).

attachment is surely being lost, although replotting has been arranged based on the area size calculated from the copy of the map also for use rights setting. If we have an obsession with our land indeed, we have to go out and draw a line in the field by driving a nail by ourselves.

In the neighboring district, the owners' attachment to their farmlands was an obstacle to initiating land improvement. In Village KYO without a project, although some landowners called for the second round of land improvement given the decaying agricultural infrastructure, others who were previously allocated favored farmland clung to it despite already disengaging from farming. Even without farming, the latter still received rent and were concerned of not knowing where their farmland in sight would be replotted if a project was carried out.[387] In Village KYA also without a project, many of the active elderly farmers showed their strong attachment to farmland despite their aging and the money-losing farming, resulting in failure to foster momentum for land improvement.[388] Even in Village KK with a project, in order to secure a large size plot for more efficient farming, a secretariat coordinator of the Land Improvement District needed to fight against others who tried to limit the plot area to more easily accommodate owners's attachment to farmland in the process of replotting.[389]

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[387] A respondent from Village KY regrettably pointed to the unsuccessful designation of replotting for the first round, in which even an effectively leveled large plot was halved with a pipe in accordance with many landowners who claimed for their own allotments (Interview with a farmer on November 10, 2016).

[388] A respondent from Village KYA presented his money-losing case of farming and called for a land improvement project several years ago, but many of the still active but elderly farmers were unwilling to join the effort, expressing their preference to the status-quo. He suggested that many of the villagers had a great attachment to their farmland, exemplifying their concerns about the FB program: their sons might be disallowed to engage in farming once they lend their farmland to the FB; and they may need to change their way of obtaining rice from their farmland to purchasing rice for their own consumption or gifts to their family and relatives (Interview with a farmer on November 10, 2016).

[389] According to the respondent from Village KK, the board members for replotting proposed the smaller size of a plot (e.g., 0.2 or 0.3 ha) which would be more easily agreed among the beneficiaries given that smaller size of land can be easily replotted in accordance with the original size and location of their farmland. As a secretariat coordinator of the Land Improvement District, however, reminded them of the initial thrust and stressed the objective of the project to resolve the inefficiency from smaller plots and to achieve efficiency through scale expansion of farming, finally resulting in the agreement to plan of replotting with much larger size of a plot (Interview with a farmer on November 9, 2016).

5.1.2 Initiatives planned:

At the end of 2016, the initiatives were in the planning stage in three villages in Zones C and D (i.e., Villages NC, ND and NF). Prior to official local consent, most farmland owners had informally agreed to apply for land improvement projects in combination with the FB program to be selected by the prefectural government in fiscal 2018. Based on the discussions in 2014 held on the initiative of the NHDA, the landowners in all these village concluded that re-improvement of rice paddy field would solve the problems of irrigation and drainage and address the issues of shrinking and aging farm population in the geographically disadvantageous farm environment (NHDA 2016). Following this conclusion, they gathered more frequently in 2015 and early 2016 to discuss the means of land improvement under the leadership of the NHDA, while conducting on-site observations in the zones where land improvement was already taking place. As a result, even prior to the stage of final local consent, local consent on a land improvement project had already achieved 100% and 85% respectively in Zones C and D as of March 2016 (NHDA 2016, 6–7).

As such, based on the lessons learnt from the zones where the initiatives were already underway, the three villages recognized their needs and interests in the initiatives under the coordination of the NHDA, leading to the high levels of consent. Nevertheless, the villages faced the uncertainties and indecisions of: budgetary status and timing, and 'responsible entities' and replotting. The Land Improvement Districts, organized at each village between January and March 2016,[390] sketched a plan on the beneficiary areas in the two zones for land improvement

[390] A Land Improvement District was organized on January 31st, February 7th and March 19th in 2016 respectively in Villages ND, NF, and NC (NHDA 2016, 6–7).

as well as main ‘responsible entities’ including Farm N. They submitted their preliminary application to City A in November 2016 aiming at prefectural selection in fiscal 2018 and then within a few days, gained approval by the prefectural government. As of late 2016, they were planning to obtain formal local consent in fiscal 2017 to prepare for formal application and approval in fiscal 2018 so that the projects could be selected by the end of fiscal 2018. With this schedule, they were aiming to start the construction work in 2019, although it would depend on the national budgetary status.

Budgetary status and timing:

Following the experiences in the zones where the initiatives were aleady underway, the idea of minimal local cost share as well as additional financial advantage from the FB program was generally shared among the landowners in the three villages. In fact, the initiatives started with a call from the NHDA secretariat to join forces to pursue land improvement while the time was ripe. The secretariat explained that the current policy allowed beneficiaries to bear almost no cost. Despite the salient needs for renovation of the decaying water facilities, several respondents presumed that the majority would have not agreed if they needed to bear the cost particularly when rice production was not economically viable. Likewise, it was generally understood that farmland aggregation through the FB program would be more financially advantageous for the communities at large while incorporation of farm entities would be also subsidiarily encouraged. To take advantage of the FB program, the three villages laid out a goal to aggregate farmland as much as possible (e.g., more than 50% for the farmland aggregation rate in Village NC). In

addition, farmland aggregation into incorporated farm entities was generally agreed so that farm management would be better subsidized under the current policies.

However, the three villages were late comers. They were expecting to complete construction work in fiscal 2023 at the earliest, while the first tenancy contract with the FB would end in another next 10 years (i.e., 2033). Furthermore, the subsidiary rates were fluctuating. Under this financial and political climate, a leader of Land Improvement District in ND village expressed anxiety about uncertainties of local benefits and possible risks in the timing of project implementation (Interview with a farmer on December 10, 2016):

> *In the vein of the talks so far, the landowners in our village easily agreed and lightly signed the preliminary consent only by looking at the opening of the story. But I guess they gave consent without fully understanding each scenario of the story including any possible outcome, and if so, they may say "I never heard anything like that" in the course of obtaining formal consent from now. … Although I was briefed on the FB program, its pros and cons didn't go strait over my head, but after a while eventually now I understand it will take almost a decade to complete the construction work for land improvement, and after that, we should lease out our land to the FB for a decade for the initial contract. So, this initiative will last for almost two decades. In such a long run, I started wondering, what will happen if there is no heir in each household upon the end of the contract as even now we are all aging already and may not live then. … Though city officials tell us about the figures of subsidies for the program, the figure a few years ago, that for the present, and that for the future are changing from time to time. When we first heard from the NHDA secretariat a couple of years ago, there was certainly substantial advantage in initiating land improvement, but now I sometimes think there is not much. Besides such an annual fluctuation, the officials also are gaining more knowledge about the program and policies and are becoming more specific about conditions and limitations. … If the work starts out late, our repayment for local cost share may even linger for many years in the future in the worst scenario.*

Responsible entities and replotting:

In late 2016, replotting as well as allotment for responsible entities was yet to be discussed. Based on the preceding discussions, the villages had shared the scheme by which most of the landowners would lend their land to the FB and would engage as a cooperative member in communal farming under the management of 'responsible entities' who would lease land from the FB. Also, they had shared the idea that the major 'responsible entity' would be Farm N. In addition, the NHDA secretariat shared the schedule at the meetings of Land Improvement Districts in December 2016 to prepare a plan of farmland aggregation and consolidation with identification of 'responsible entities' in October 2017 to be submitted for formal application and then develop a plan of replotting within fiscal 2018. As such, the plan of both replotting and allotment was supposed to be detailed in the next few years.

The general impulse to configure the arrangement for replotting and house 'responsible entities' in each village differed according to the status of the existing 'responsible entities' and the environmental conditions. In Village NC, it took a little more time than the other villages to attain preliminary consent on the initiative, largely because the existing local 'responsible entities' had managed to cultivate the land without outside help. There were certainly strong needs for solving the problems with irrigation and drainage, whereas the demographic problem was obviously serious. However, some voiced doubts about a need for increasing a paddy plot in size, as the possible extent of enlargement would be limited (e.g., 0.3ha) compared to that in the zones with the initiatives underway (e.g., 1ha) due to the sharper geographical features of the village. Furthermore, three active family-run farms who had engaged in farming others' farmland in the village while being qualified as certified farmers faced a decision of whether to be a

'responsible entity.'[391] Among these three, the largest and incorporated one (with the area of 10ha) already planned to do so after land improvement together with Farm N, but was yet to determine the volume and locations of his allotment. Two other individual farm entities (with the area of 4-5ha) were undecided but would be forced to make a decision.

Both Villages ND and NF have achieved preliminary consent without significant opposition, given that these villages had no longer been able to manage without outside help. In Village ND, one outside 'responsible entity' joined tenancy for the past two decades and had been in charge of farming one-third of the village's farmland.[392] With experience of having some of the paddies abandoned in the past, none of the landlords residing in the village disagreed on the initiative, despite a few doubts from absentee landlords.[393] Rather, a local leader was concerned about plausible challenges to gain participation by beneficiaries in future discussions on replotting and responsible entities given little interest among the landowners (Interview with a farmer on December 10 , 2016). In Village NF, the NI Cooperative, the predecessor of Farm N, had been already one of the responsible entities.[394] Also, in the presence of sporadically abandoned farmland, a sense of crisis was generally shared. With the common understanding that

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[391] In Village NC, there were three major responsible entities who were also certified farmers and involved in tenancy to engage in cultivating farmland owned by their neighbors and relatives, in addition to owner-farmers (including both parti-time and full-time farmers). In the past, there were two initiatives of community-based farming where one of these family-run farms took a lead: 1) the first initiative of Agricultural Machine Use Cooperative ended with the challenges of joint financial management (1981-1994); and 2) the second similar initiative nominally continued for the subsidized agricultural machines but was not in operation (2004-) (Interviews with farmers on December 7 and 8, 2016).

[392] In addition, two local responsible entities had been engaged in a half of the village's farmland and two owner-farmers had been for the rest (Interview with a farmer on December 10, 2016).

[393] According to the president of Land Improvement District in ND village, there were some absentee landlords who puzzled over the initiative (Interview with a farmer on December 10, 2016). He stated "Some of them let us do what we want as they saw themselves having troubled us due to their absence. Others raised doubts as to why land improvement should be conducted again although it had been done decades ago, and how they as recipients of pensions can come up with the repayment money to share the project cost."

[394] In addition, there were one local responsible entity besides 7-8 active owner-farmers including part-time ones.

no one will take care of their farmland unless it is improved, most of the landowners in the village gave swift consent.[395]

5.2 Individual or Household Participation in the FB Program

The respondents associated with Zones A and B (n=16) had already determined how to participation in the FB program. Those from Zones C and D (n=10) were in an unsettled status given that the initiatives were only preliminarily planned. The former included those who planned to be involved in communal farming by lending their farmland to the FB, and those who planned to continue independent farming by leasing farmland from the FB. With the tenancy arrangements through the FB, the roles and responsibilities of the individuals in farm management were in transition along with the land improvement projects. The latter included those who made a preliminary decision and those who were indecisive. The decision-making status of respondents' participation in the program is shown in Table 5.2. This section illustrates to what extent the respondents had made a decision as well as how they planned to participate in accordance with the progress of the initiatives.

[395] The land improvement project planned to cover most area of the relatively large village, but to exclude the hilly part because farmland management activities would become more burdensome due to the increased sharpness of slopes if a paddy plot is enlarged (Interview with a farmer on December 10, 2016).

Table 5.2 Status of Respondents' Decision Making on Participation in the FB program

Initiatives	Farm Management		Lend to FB	Lease from FB	Affiliation	Roles & Responsibilities	Reward
Underway: Zones A & B (n=16)	Communal (n=13)		Yes (n=13)	Yes - as a cooperative (n=12)	Farm N	Board of directors (n=7): Capital subscription, right to vote, execution of operation for farm management (planning& management, cultivation — including payment for rent, collective farmland management)	Rent, compensation for directors, (wage)
						Other cooperative members (n=5): Capital subscription, right to vote, farming support, collective farmland management	Rent, (wage)
				No (n=1)	NA	Non cooperative member (n=1): Collective farmland management	Rent, (wage)
	Independent (n=3)		Yes (n=1)	Yes - as an individual (n=3)	Individual farm entity	Individual farmers: Independent farm management, payment for rent, (collective farmland management)	Profit
			No (n=2)				
Planned: Zones C & D (n=10)	Tentatively decided (n=5)	Communal (n=3)	Yes (n=3)	Yes - as a cooperative (n=2)	Farm N	(Either board of directors or other cooperative members - pending)	Rent, (wage)
				Undecided (n=1)	Undecided	(Either cooperative members or not - pending)	Rent, (wage)
		Independent (n=2)	No (n=2)	Yes - as an individual (n=1)	Individual farm entity	Individual farmers: Independent farm management, payment for rent, (collective farmland management)	Profit
				(No) (n=1)		Individual farmers: Independent farm management, (collective farmland management)	
	Undecided (n=5)		NA	NA	NA	NA	NA

5.2.1 Initiatives underway

All the respondents associated with the four villages where the initiatives were underway had planned to participate in the FB program either through communal or independent farming. To adopt the land improvement projects in combination with the FB program, the beneficiaries needed to decide as individuals or households whether to lend their land to the FB. If they decided to lend their land, they also needed to decide whether and how they would engage in farm management. If they decided not to lend, they would presumably continue independent farming.

On the part of tenants, even without owning farmland within the beneficiary areas, farmers (e.g., outside farmer) were able to lease farmland from the FB as long as they were listed as 'responsible entities' for the areas in the Community Agricultural Master Plan (CAMP). The major tenant was Farm N, but a few others joined the program as independent farm management entities. In fact, some of the beneficiaries planned to lend out their land to farm management entities other than Farm N, but through the FB. Regardless of their affiliations and actual counterparts of tenancy, all the respondents who were landowners, if they had decided not to pursue independent farming, planned to engage more or less in communal farming.

Communal Farming:

The activities of communal farming were centered around the management by Farm N, an Agricultural Producers' Cooperative Corporation.[396] With a right to vote in plenary assemblies, cooperative members could participate in decision making on farm management. Among the

[396] As of December 2016, Farm N consisted of 31 landowners from the four villages, who as cooperative members subscribed a share of capital (i.e., JPY10,000 (approximately USD89) per 0.1ha) (District N n.d., 11).

cooperative members, 9 members were serving as a board of directors to represent the cooperative in executing operations and were responsible to the institutional contracts as well as the decisions made by the plenary assemblies. The roles and responsibilities of the board were broadly divided into two areas: corporative planning and management, and cultivation and farmland management.[397] The former included the tasks related to financing and human resource management. The latter included the tasks related to growing crops and maintaining farmland mainly on the improved land.

Despite the central roles of Farm N, farming practices, including both crop cultivation and farmland maintenance, drew on the contributions not only from cooperative members but also from other members of the villages. Crop cultivation was managed at each village under the leadership of one member from the board assigned to each village. Although the assigned board members themselves engaged in actual cultivation on the improved land, Farm N recruited cooperative and non-cooperative members on an as-needed basis to engage in cultivation particularly during peak periods in return for an hourly wage (NHDA 2016). Besides the annual compensation, into which the limited amount was equally divided among them given the initial stage of corporate business, the board members were paid an hourly wage if they engage in rice cultivation.

The practices of farmland maintenance involve two kinds: maintenance of cultivated land (e.g., weeding on levees, and water management directly associated with the land), and maintenance of farm roads and water channels normally perceived as common properties of a

[397] In addition, another group responsible for processing of farming products planned to be incorporated into Farm N, although the group was still part of NI Cooperative in late 2016. NI Cooperative still continued as an incorporated farm entity and leased out its agricultural machines and facilities to Farm N, while selling processed products to Farm N. However, once these machines and facilities would become out of order, Farm N planned to purchase and build new ones. As such the farm management was in transition from NI Cooperative to Farm N (Interview with a farmer on November 7, 2016).

village (e.g., cleaning of water channels, and weeding on farm roads). While the former customarily falls under the responsibilities of cultivators, while the latter falls under the collective responsibilities of villagers. Following the customs, the former was under the management of Farm N. Along with the progress of the combined initiatives, however, the cultivated land was being aggregated, broaden out overall, and thus beyond the practical capacity solely of Farm N. Therefore, in the same manner as the management for cultivation practices, a group was organized at each village to engage in maintenance practices on the improved land (NHDA 2016). The latter was continuously practiced as traditional regular events at each village (two to four times in a year) with involvement of both farmers and non-farmers. Under the coordination between Farm N and four neighborhood associations of the villages, economic incentives were provided for the both kinds of farmland maintenance practices in the form of wages by drawing on the government subsidies.[398] In addition, as long as landowners lent out their farmland to the FB, they were given a standardized rent (e.g., JPY 6,000 per 0.1ha annually = approximately USD 53) by the FB even without engaging in any farming practices.

The respondents who decided not to pursue independent farming in these zones all contributed to farmland aggregation and consolidation by lending their farmland to the FB that would then lend them to responsible entities. However, the level of contribution to communal farming varied according to their roles and responsibilities in Farm N. Among the respondents

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[398] The neighborhood associations in the four villages had adopted the national subsidiary systems such as the Direct Payment System for Mountains Areas and the Multiple Functions Payment Grant System mostly since 2000 to support local collective activities for farmland maintenance. The subsidies were used for wages, and purchase, repair and maintenance of equipments and facilities. In addition, the four villages collectively adopted the regional cooperation project of the Direct Payment System for Mountains Areas as a first kind in City A in 2015 and received an additional amount of subsidies (JPY 2 million = approximately USD 17.8 thousand) (Interview with a farmer on December 8, 2016). While even prior to the land improvement projects, NI Cooperative had already drawn on these subsidies for farmland maintenance practices also on the cultivated land as a village-based farming organization in NI village, Farm N extended this manner of drawing on the subsidies to all the four villages (Interviews with farmers on November 9 and 10 , 2016). However, in Village KK of the neighboring district, the newly established cooperative was unable to draw on these subsidiary systems for its farmland maintenance practices due to a lack of coordination between the cooperative and the neighborhood association (Interview with a farmer on November 9, 2016).

from the board directly engaging in farm management, four were in charge of corporate planning and management and three were responsible for cultivation and farmland maintenance. The cooperative members generally relied on the board in execution. The cooperative members from the area where land was yet to be leveled were not practically involved in the new farm management system, but those from where land was already leveled, started to be involved. In particular, there were two respondents who had been already non-farmers but holding farmland and lent their land to an independent farm entity through the FB due to the replotting arrangements for consolidation: one was affiliated with Farm N as a cooperative member, while another was not but was engaging in collective farmland maintenance practices as a hamlet member.

Independent Farming:

The respondents who decided to continue individual farm management after land improvement planned to grow crops, maintain farmland and sell their products (and also sometimes process the products) independently from communal farming. Although all were individual farm management entities, rather than incorporated ones, one had been actively expanding the scale of farm management across several villages and districts and two others were not planning to do so. The former (hereafter called Large Rice Farm A), without his own land in District N, had been farming the land across three villages[399] as a certified farmer by aggregating the land through conventional tenancy arrangements. After land improvement, he planned to continue rice

[399] These included Villages NI, NH and NG.

production and other crop cultivation by consolidating the land into one of these villages as a ‘responsible entity' for that village.

One of the latter (hereafter called Small Vegetable Farmer A), without his own land in the zones but in the district, had moved back from a city and started vegetable farm management in one village (i.e., Village NI) independently in 2012 after one-year training at NI Cooperative by taking over the portion of the use-rights from the NI Cooperative. After land improvement, he planned to continue the same manner of farming on the same scale while changing the counterpart of the tenancy contracts from landowners to the FB. Another of the latter (hereafter called Small Landed Rice Farmer A), who had become a full-time farmer upon his retirement from another job, had been farming neighbors’ land besides his own land. In accordance with the initiatives, he planned to halved the area for farming by limiting it to his own land to be subcontracted with Large Rice Farm A for his retirement in the near future.

5.2.2 Initiatives planned:

Despite the unsettled status, some of the respondents had tentatively decided their participation, but others were yet to make a decision. With reference to the experiences in the zones where the initiatives were already underway, those decided were preliminarily planning either to lend their land to the FB, or to continue independent farming. In particular, the respondents planning to lend the land took advantage of their accessibility to information and knowledge about the initiatives: two of them (who were playing a coordinating role in the initiatives) were planning to participate in communal farming at Farm N, while one (whose cousin had experienced in the

preceding zone) was planning to follow his cousin to lend out land to the FB but yet to decide to what extent he would participate in communal farming.

Two respondents who planned not to lend their land, had been full-time farmers interested in continuing their independent farming. One of them was an incorporated farm entity as well as qualified as a certified farmer and had been actively expanding the scale of rice farming over more 20 years by aggregating the land across four villages[400] including his own residential village in the district (hereafter called Large Rice Farm B). To coordinate with other 'responsible entities' for the allotments in both of the preceding and planned zones, the farmland for his cultivation was to be consolidated into his residential village, while he was aiming to further expand his farming scale with an expectation of improved efficiency after land improvement. The other had been organically growing vegetables for sales purposes as well as rice and other crops mostly for self-sufficient and conservation purposes on his own land (hereafter called Landed Organic Farmer A). To secure organic soil, he was planning to ask for exclusion of his vegetable farmland (existed cohesively, not scattered across different locations) from land improvement, while intending to continue rice farming on his own land possibly by consolidating it through land improvement.

The rest of the respondents, who were indecisive, had been farming their neighbors' farmland in addition to their own farmland. For the time being, they were capable of either of lending their land to the FB or continuing independent farming. In the face of the above mentioned uncertainties, however, they were wondering whether they would continue independent farming.

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[400] These included Villages NH, NC and ND.

5.3 Motivations for Participation

Individuals' motivations for participation in the initiatives reflect the following six components: 1) intergenerational responsibility; 2) social relations; 3) economic dependency; 4) technologies and physical strength; 5) spiritual fulfillment; and 6) attachment to rice. All the respondents had faced a decision about farmland use, particularly by identifying their position somewhere between individual engagement and communal engagement. Although two respondents were from outside the zones, all of them were part of the farming community in District N as all had been involved in farmland use and maintenance. Furthermore, each was a member of a family that had inherited farmland over generations. The majority of farm households had also engaged in family-based farming previously, although some of them had engaged in community-based farming such as that of NI Cooperative. At the same time, each could decide whether and how to participate. As either an individual, a household member, or a community member, they had weighted or were weighing these six components to make a decision.

Intergenerational responsibility:

Intergenerational responsibility for handing down farmland was a priority for most of the respondents. Farmland is institutionally associated with owners' de-facto responsibility for farming. Furthermore, the sense of responsibility for handing down farmland as a 'living property' was shared among the respondents. This responsibility customarily falls to the eldest son in each family. In fact, many of the respondents indicated that their prime reason for initially engaging in farming was to succeed to the family estate as the eldest son. In the absence of an

eldest son as a successor, some respondents had engaged in farming as a husband adopted into his wife's family from a neighboring district, a sibling or a relative available to take over the family farm. Engagement in farming was generally a result of inheriting the family estate (*ie*), including "the house and lot (*ie-yashiki*)," "hill (*yama*)" and certainly "farmland (*tanbo*)" as a set (Interviews with farmers on December 8, 9 and 10, 2016). In particular, for those over 50, such customary practices were thought to "be in the natural order of things" and were done "without any resistance" (Interviews with farmers on December 7 and 9, 2016). At the same time, many of them presumed that such responsibility prevented them from freely choosing their residence and job.

However, succession of farmland and farming at the household level has become a crisis. Small family-run farms that had been ubiquitous were economically and politically discouraged. Particularly during the agricultural downturn, younger generations had come to view farmland as a "negative legacy" rather than a fortune to be handed down for the prosperity of descendants (Interviews with farmers on November 8 and December 8, 2016). The arduousness and hardship of farming practices were perceived across different generations. However, the intergenerational responsibility for succession was felt differently over generations, as a wife of the eldest son of a family in one of the hamlets mentioned (Interview with a farmer on November 10, 2016):

> *We cultivate leeks, and our sons say "Mom and dad, why do you do what brings nothing but trouble?" My husband says "That's not for money, but we do it for our health," not the matter of whether he succeeded to our family estate as the eldest son. But sometimes I wonder if it is truly meaningful to maintain our health, as we often need to wake up early to work even when I am in bad shape. ... Young people have the flat-out idea that they are better not to do whatever has no merit, but we can't continue with farming, if we say "we quit as there is no merit in it." We cant' continue without perseverance and belief that we can't quit in one or two years once we come in. So it's our responsibility. I may have the naturally*

implanted idea that I should continue with what this family has once I come in, and then endow it to the next generations. I have my responsibility of having married into this family, and so may have a sense of responsibility that I'm very sorry if our generation that I come in discontinues this family and what it has.

With this transformation, some with successors tended to continue independent farming, while others without successors appeared to rely on communal farming. Two respondents had secured their successors, and both of them decided to continue independent farming. One respondent stated that the bottom line to decide on his continuation was whether he could secure his successor on his own. Most of the respondents who opted for communal farming included those with no children, and those with more than one child who were unwilling to engage in farming or unable to do so due to their residence, jobs or other technical capacities of farming. One of the objectives for Farm N was to place intergenerational responsibility at the community level given that it no longer was feasible at the household level. All the respondents who opted for communal farming expressed their expectations for "securing successors," "succeeding farmland," "ensuring to have responsible entities" and "responding to aging in the community."

Social relations:

Maintenance or improvement of social relations was another factor for many respondents. By design, communal farming could secure good social relations for its members. As a major tenant, Farm N took a form of a Cooperative Corporation where good social relations could be mutually shared by the both ends of tenancy through the FB. This would allow cooperative members to be socially integrated in the farming community by participating in plenary assemblies for collective decision-making with an equal right to vote regardless of the amount of capital

subscription. Participation in plenaries would allow them to coherently understand the status and development of the farming community and evaluate the potential for its future actualization. Participation in the farming practices would also allow them to contribute to the farming community.

Aspiration for favorable social relations differed among the respondents according to their status of tenancy and reflected the mode of their participation. As a landowner, many respondents expected tenants be socially engaged. For instance, two respondents who decided to lend their land stated “visibility of” or “a face-to-face communication with” tenants as a key to relying on them (Interviews with farmers on December 9 and 10, 2016). One respondent also indicated his disinclination to tenants who would manage farmland "arrogantly without respect to landowners” (Interview with a farmer on December 9 and 10, 2016). These respondents expressed their preference for local tenants over outsiders, but also suggested that either can work as long as a favorable relationship could be built between landowners and tenants.

Among the landowners, the interviews also found divergent motivations for maintaining social relations. All the respondents who decided to belong to Farm N expressed their willingness to engage in the farming community, for instance, by “participating in decision making on the farm management” or “contributing to local development or environmental improvement” (Interviews with farmers on November 8 and December 8, 9 and 10, 2016). In particular, most respondents from the board stated that their motivation was to overcome community problems (e.g., aging, lack of successors, farmland abandonment) and draw on government subsidies for future farming. Those who were indecisive were uncertain about how their social relations could or should be maintained through their membership. Some expressed

fear of losing their social relations particularly within their own village even if they joined the corporation, while others were reluctant to share a burden by getting involved in the corporation. This difference in perspectives alludes to another generational gap. For instance, a respondent from Village NC in his early 80s stated his concern about possible transformation of the community through the program and his preference to the village-level communal farming (Interview with a farmer on December 7, 2016):

> *If only about ten people farm around 100 hectares of land under the corporation, the rest of the people will only see their farming in silence and can't do it even though we want. ... If our village takes initiative, I think, a few of us could sufficiently manage 20 hectares of farmland once land is improved. Farmland is improved finally, but if it will be managed by Village NI, that's not so great. I think we should have responsible entities on our own, and am asking young people in our village a riddle, but they and their parents don't provide favorable responses. If I ask them much, they say "You're a communist!" and shrink away from me.*

One respondent from Village NF in his late 40s offered a contrasting view on his possible involvement in the farming community (Interview with a farmer on December 10, 2016):

> *There lies the difficulty in deciding my own involvement. I feel like leaving all my roles and responsibilities to a responsible entity. I don't know if a cooperative member needs to contribute to farm maintenance practices… If I have some energy left, I may engage in such practices, but I'm not eager to do so. If I'm held responsible for some farming practices by becoming a cooperative member, I may rather choose a different responsible entity, if there is, that won't require such responsibilities.*

Among the tenants, a good social relation was desired. For instance, Small Vegetable Farmer A stated that he made efforts to maintain farmland as beautiful as possible so that the villagers would be comfortable with seeing them. In particular, the farmer of Large Rice Farm A

devised strategies for him to be accepted as a responsible entity from outside and to nurture a social relation whereby the both ends of tenancy can feel mutually industrious (Interview with a farmer on December 7, 2016):

> *I give rice as a rent back to an individual landowner, but also return a favor to a whole village. Every spring and fall, I devote sacred sake (rice wine) for festivals to all the villages where I engage in tenancy. I have to pay a considerable cost for it, but it transcends money to reduce friction. … In Village NH, I have the active female elderly help with vegetable farming on their own land, and in return provide them with wages or buy out their harvest. After I started this, all turns out right based on the interdependent relationship. At the beginning, I used to work with other laborers by bringing them and machines on the paddies. It was a source of the problem that villagers were only looking at our farming. … Previously there were some conflicts with villagers such as a trouble with irrigation, but finally even one villager volunteered to assist in taking care of water. I think there was a kind of adverse reaction as if they got a flu virus and felt need to take it out when they saw someone not belonging to their village working in their garden. But after I deployed a system by which I get them involved and give them a rebate, the things have come off well.*

Economic dependency:

Economic dependency was a priority for some of the respondents. Most of the respondents who had relied on farming as a primary source of income opted for independent farming. In fact, four respondents out of five who decided to continue independent farming, primarily relied on farming for living, whereas one, Small Landed Rice Farmer A, who was able to live on a pension, allowed for halving his farm size. While taking risks from their own farm management, all these respondents developed their own means to reap a profit. Two respondents from rice farms had been expanding to secure profitability (Large Rice Farmers A and B), while others developed sales of their products for profits rather than expanding scale (Small Vegetable Farmer A, Small Landed Rice Farmer A, and Landed Organic Farmer A).

Most of the respondents who decided on communal farming had been living on pensions or earnings from work other than farming. Except for those who engaged directly in cultivation at Farm N, none of these respondents expressed their expectations for their economic reliance on communal farming. In particular, one respondent estimated that independent farming could bring better income than wages from communal farming at the current market price of rice. Rather than an economic incentive for communal farming, many respondents mentioned the economic disincentive as a reason for their shift from independent to communal farming. For instance, one respondent raised the price depreciation of rice as the greatest reason behind his move. Several respondents who were indecisive also stated that further price depreciation would leave no alternative but to retire from independent farming and join communal farming, as it would disallow them to renew farming machines. Furthermore, one respondent who was decisive about retirement, expressed his relief from care for the farmland that has imposed a responsibility for inheritance but brought no benefit and even sometimes incurred a loss.

Technologies and physical strength:

The initiatives of program adoption combined with land improvement encouraged some respondents and discouraged others to continue independent farming, depending on the technologies they had employed as well as their physical strength. In terms of technologies, the mechanical capacities of the respondents either enlarged or narrowed their participation. Enlargement of a plot demotivated those whose farming machines were aging or only suitable for smaller plots to continue farming, whereas it motivated those mechanically capable to further expand farming scale by taking advantage of land improvement. The former respondents noted

the deadlock of upgrading their mechanical capacities in the situation where the price of farming machines was rising with technological advancement while profitability of rice production was decreasing. The latter, including Farm N, not only took advantage of their existing mechanical capacities, but also drew on governmental support to upgrade their capacities for further expansion particularly if they were incorporated. For instance, Large Rice Farm B, which was incorporated, was planning to expand the scale from 10 ha to 40 ha with a change in cultivation methods for which subsidies would enable him to invest in machines.

The farming methods which the respondents had used also affected their choice of participation. In particular, land improvement hampered continuation of some farming methods unless it could exclude certain farmland for the use of such methods. Landed Organic Farmer A was planning to continue organic farming on his land by asking for exclusion of a block of farmland from land improvement. However, a respondent, who was employing traditional, manual drying techniques for the harvested paddy rice (*hazaboshi*) was indecisive about whether to continue independent farming, because the initiatives were presumed to consolidate his small and scattered plots into a fewer larger plots that inevitably require mechanization for efficiency. He expressed his willingness to continue his farming if any small plots would remain, but, if not, mentioned that he would give up his independent farming and rely on responsible entities.

Physical strength was a critical factor for many of the respondents around age 65. Two respondents who had retired from farming noted their physical limit (i.e., their own sickness or their family's decease) as a final determinant for farm retirement. Two respondents around age 50, who had a full-time occupation and decided to retire from independent farming, expressed 'fatigue' or 'tiredness,' resulting from their limited time along with decease or aging of their

family members who had engaged in farming. Also, two respondents around age 70 who decided to retire from rice farming despite their willingness to continue, pointed to their ages as a determinant in consideration of their physical strength for the next 10 years. In relation to their technological capacities, two respondents over 60, who were indecisive, expressed concern about their adaptability to a new farming environment (e.g., speedy large-sized machines, a new farm management system).

Spiritual fulfillment through farming:

Gaining spiritual fulfillment motivated some of the respondents to keep farming. Most of the respondents who decided to continue independent farming expressed their feelings of accomplishment enjoyed after harvesting and a sense of self-actualization gained through the reputations of their products. For instance, Small Vegetable Farmer A stated that farming as an entrepreneur in the middle of nature was totally different from his experience in working as a corporate employee in a city and gave him a pleasant feeling despite the instability of farm management. Small Landed Rice Farmer A shared a grateful feeling of receiving acclamations from urban consumers about his packaged products including rice and local vegetables. Also, Landed Organic Farmer A elaborated on the continuing process of trial and error in organic farming, but also highlighted the zest he had been finding through learning and experiencing.

Involvement in communal farming allowed for attaining spiritual fulfillment for some respondents but not all. This possibility largely relies on the room left for them to discretionally cultivate farmland. For example, a respondent who was a board member responsible for growing vegetables for crop conversion explained the constitutional benefits from his involvement, saying

"By farming, I can see and enjoy nature, use my energy, and use my inventiveness to incorporate my ideas into practices" (Interview with a farmer on November 9, 2016). However, another respondent who was undecided, anticipated a possible depravation of his discretional farming together with loss of spiritual fulfillment by getting involved in communal farming (Interview with a farmer on December 8, 2016):

> *It's as if my job will be taken away. I can work at the corporation, … but it'll be impossible to have my way with farming. … Once land is improved, farming will get nothing without mechanization, and I have to make an about-face on farming and can no longer practice hazaboshi (manual drying techniques). … I have no time in busy farming seasons. In my case it takes a few months to get it done compared to one week for others. My way produces little, while taking time and space. … My rice is sweeter and people say it's tasty…. People who visit here say "spectacular," looking at the terraced paddies with the drying harvested paddy rice. … It's indeed laboring, as I'm doing what can't be done particularly with no family member who can work with me. But it's very indescribable to have a sense of accomplishment after getting my job done.*

Among the respondents who retired from rice farming upon the program adoption, those who still had their land outside the zones stated that they continuously engaged in farming or forestry mostly for self-consumption or land conservation, which sometimes gave them enjoyable feelings. However, a respondent who lent out all his farmland had mixed feelings involving a sense of release and a sense of loss. Puzzling over the great change in his lifestyle, he noted the reduced burden in both physical and spiritual terms (e.g., worries about irrigation and weeding, daily visits to farmland), but also indicated forlornness resulting from the loss of the field to call 'his own' whereby he needed to bear a burden but looked forward to the next.

Attachement to rice:

Farmers' attachment to rice that they produced on their own land made some of the respondents indecisive about their participation. As practiced widely in Japan (Matsumoto 2010), most respondents used to set aside rice they had produced for self-consumption (*hanmai*) and often for gifts to children and kin (i.e., gratuitous rice called *enko-mai*). Under the conventional tenancy arrangements, the rent was paid in rice basically produced on the owner's farmland, except for when landowners preferred monetary rent. Under the new tenancy arrangements, however, the standardized amount of rent was paid in a monetary form.[401] This means that if farmers decided to lend their land to the FB, they had to purchase rice while being paid monetary rent. This change perplexed some of the respondents. Some who decided to participate in communal farming expressed an "uncomfortable feeling" with purchasing rice (Interviews with farmers on December 8 and 10, 2016). Others who were indecisive shared their regrettable feelings, for instance, mentioning "Our rice will be taken away from me." or "It's bitter for me as a farmer to be forced to buy rice." (Interviews with farmers on December 8, 2016).

The interviews suggest that the farmers' attachment to rice was associated with the specific 'eating quality' and the sense of ownership over farmland, besides the purpose to secure the staple for family and kin. One respondent explained that the taste of rice differs according to its constituents which vary across different paddies and areas and cannot be expressed in a 'grade,'[402] and that the taste would change if different rice crops from different areas were mixed (Interviews with farmers on December 10, 2016). Another respondent expressed his expectation

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[401] Although the FB program allowed for FB's payment of in-kind rent, the monetary rent was adopted in many cases to ease payment procures (Interviews with prefectural officials on August 23, 2016).

[402] A grade of rice is used in referring to certain standards such as water content and shape in the examination of brown rice.

for reserving ‘a right to rice’ that belongs to the farmland of his family or his village, proudly saying “Though it’s a self-praise, the rice of our family was really tasty, and the rice of our village has a quite high reputation.” (Interviews with farmers on December 9, 2016). To accord “the farmers’ primitive wishes to eat rice from their own paddies,” a respondent who had been engaging in the NI Cooperative, expounded the customary practice adopted by the Cooperative to provide landowners with rice from their farmland as in-kind rent by labeling the sacks of rice with specific locations (Interviews with farmers on November 11, 2016).

Following this customary practice, Farm N labeled the sacks of rice with identification of each block of farmland so that landowners could purchase rice from their proximate areas. Thus, the new tenancy arrangements still allowed for accommodating owners’ attachment to rice despite the change to monetary payment, although the new system diluted the specificity of rice to a paddy due to land improvement. Some respondents who decided to discontinue independent farming, compromised in the new arrangements, though they wished to maintain the same means of self-consumption and kinship care.

5.4 Immediate and Future Challenges

Farm management in the district was in transition. The interviews highlighted sooner stabilization of farm management as a priority to be addressed. In this regard, as many respondents mentioned, an immediate challenge was to deal with change in farming infrastructure and tenancy and put new farm management in place in the both preceding and planned zones. Furthermore, the interviews pointed to the long-term securement of successors as

a key to the sustainable future of the district. The respondents expressed hopes and fears about the long-term continuation of the newly established farm management.

5.4.1 Farm management

New farm management was groundbreaking along with physical and systematic transformation of farming in both zones. The first step was a successful completion of the land improvement projects. Since the projects were collective initiatives, a few respondents coordinating the projects still faced the challenges of smooth implementation (e.g., attaining formal local consent, financing the projects, and handling the subsidies). Based on the observation of some areas where the initiatives were already underway, however, the immediate challenges mentioned in the interviews focused on how to deal with: farmland maintenance, and economic feasibility.

First, the emerging challenge was how to maintain farmland in accordance with scale expansion. To address this, several potential strategies were assumed. Building on the system in the zones with the initiative underway where villagers were called for farming practices at each village on an as-needed basis, the board in Farm N was under discussion to determine whether to renew the corporation to have two management systems under one corporation to farm the estimated 100 ha. This was intended to encourage villagers to engage more responsibly for farming practices in their nearby areas. Also, Large Rice Farmer B, who was planning a scale expansion, indicated a possibility to employ people to cover the increased farming practices, including farmland maintenance. Similarly, some respondents from the planned zones expected to communally maintain farmland by “taking advantage of the machines and equipments of retiring farmers” or by “having villagers, including those having other jobs, engaged in

maintenance practices weekends or on holidays" (Interviews with farmers on November 8 and 9, 2016).

However, the responses from the zones with the initiatives underway suggested that overcoming this challenge would not be straightforward. Some respondents feared that labor shortage would become far more serious along with scale expansion, given that the number of villagers participating in farming practices at each village was already decreasing. Some of the cultivation practices were not necessarily something that anyone can do. Yet, the villagers were reluctant to engage even in maintenance practices on cultivated land that most villagers can do, despite the wages in compensation for their work. The respondents commented on several reasons they heard or observed: "Villagers say I have a job to do or just don't like to work in the hot weather in summer;" "Many are thorough about not getting involved in any farming practices, leaving them up to others;" and "Many have become not to strain to go out for miscellaneous tasks once they lost their attachment to farmland." (Interviews with farmers on November 9 and 10, 2016). One respondent, who was a board member, elaborated on the dilution of landowners' commitment in accordance with the transfer of land-use rights (Interview with a farmer on November 9, 2016):

> *People used to care about paddies, taking care of a grass and a stone on the land. But now they have only ownership rights, but their use rights were handed over to the cooperative. It comes easy for them, but I feel something tenuous and that's sad for us taking care of farm. As they still have ownership rights, I wish they could go in more for a look-around or they could be a little more involved. They used to farm then on their own. It's indeed changing over about two years.*

Compared to maintenance of cultivated land, the challenge for traditional collective practices on farm roads and water channels was not obvious but might be in the near future. In the zones where the initiatives were underway, most households including non-farmer ones, were participating in the collective practices, except for the elderly living alone or sick. However, these exceptional cases were increasing with the aging and shrinking population, resulting in longer hours for fewer villagers, for instance, in Village NI. Furthermore, in Village NH where the way of collective maintenance after land improvement was yet to be determined, some villagers were claiming that responsible entities should maintain water channels previously perceived as a common property. In the planned zones, declining participation in collective maintenance was more saliently felt by the respondents. This may be because farmland had been aggregated into fewer farms, reflecting the aging and shrinking population. Land improvement would technically ease the maintenance practices. In addition, all the villages were drawing on subsidies to pay wages for participants in compensation for practices that used to be done without compensation. Nevertheless, the demographic trend as well as the owners' claims to disengage from farmland maintenance allude to plausible challenges of eliciting cooperation from villagers.

Second, economic feasibility was a challenge not only for communal farming but also for independent farming. As the largest responsible entity, Farm N assumed the heaviest responsibility for farm management in the sense of taking care of the properties of the majority in the villages. To fulfill this responsibility, some board members stressed the absolute necessity to make farm management take off at any cost. A key objective was to streamline farming by collectively investing in and using machines and facilities for improved profits. However, as the

literature shows (Hiratsuka 1992a, 1992b; Miyatake 2007), financing community-based farming is a challenge. In fact, the past initiatives of village-based farming in Village NC were unsuccessful due to the difficulties in managing cash flow and sharing profits among the cooperative members. In the case of Farm N, one female respondent appreciated the wage payment to individuals rather than households, compared to the previous independent farming where revenues and expenses were shared in the household. At the same time, one board member pointed to substantial inequity among people, given that same hourly wages were paid regardless of skills and physical strength.

In the initial stage of development, Farm N was drawing on various government subsidies including that from the FB program, while taking advantage of the machines and facilities owned by NI Cooperative. Yet, several respondents presumed the predicament for securing profitability on a downward trend of rice prices particularly in a corporation whose accounting would be more rigid and inflexible than in family-run farms. To rise above adversity, some respondents hinted at diversified farm management in combination with forestry, development of new rice varieties, better governmental support (e.g., for initial investment, project implementation, and dry-field farming), and consultation on farm management by outsiders.

Likewise, economic feasibility of farm management was a priority for independent farmers, given the vulnerability to climate and market conditions. For rice production, even small farmers admitted that small farming would no longer survive and farmland aggregation would be inevitable. The present agricultural policies were promoting large farming by subsidizing the initiatives of farmland aggregation and consolidation as well as the incorporation of farming entities. In fact, the incorporated Large Rice Farm B was planning to take advantage of

government subsidies for investing in further expansion, although he expressed concern over the frequent changes in policy. On the other, the president of Large Rice Farm A which was not incorporated but was expanding criticized the policies that gave disproportionate weight to incorporated entities with a focus on lowland farming. He urged narrowing the gap between incorporated and individual entities and according regional characteristics in policy support, exemplifying his experience of missing out on a subsidiary opportunity for his efforts in diversified farm management in combination with fisheries. Furthermore, he presented a dilemma between pros and cons of the FB program:

> *Previously the tenancy contracts were on an individual basis. So, I used to deliver sacks of rice as in-kind rent to the landowners from door to door. It was a bit cumbersome, but something good also happened. While chatting, they may say "Will you sell me more rice?" or "Could you farm the land there, too?" Face-to-face communications often bring about business talks leading to the next year. Now once landowners lend out their land to the Farm Bank, rent payments are made from a bank account. I can't see their faces and it's a bit sad or easy. ... I used to tell our employees to attend to any chitchats with the villagers. In fact, many elderly people feel lonely and are yearning to talk to anyone.*

5.4.2 Successors

For longer-term farm management, the interviews underscore the securing of a successor as a key. As a major responsible entity, Farm N was securing younger employees, but was managed by the generation over 60. To secure successors to head the corporation, many respondents hoped that younger generations in the district, including the middle-aged villagers in their 40s and 50s, would interestedly and continuously engage in farming. Some respondents mentioned their readiness to welcome anyone interested in farming or settling in the district, including those from

outside, not necessarily the young fellows from the district. In particular, one respondent anticipated the opportunity that outsiders or anyone without experience in conventional farming might bring new insights to innovative farm management.

Besides successful farm management that could attract people, the interviews hinted at two additional challenges to secure and nurture successors: technical knowledge and skills, and motivations. First, people technically capable to impart knowledge and skills on farming were becoming fewer. One respondent stressed that farming requires practical knowledge and techniques appropriate to specific local environments, not those universal to any contexts. He inferred, however, that far fewer local masterful farmers would be available to the next generations due to aging and retirement. In addition, another respondent from the neighboring district where land improvement had taken place mentioned that almost no one could give adequate guidance to large-scale farm management on enlarged paddy plots with an area over 1 ha. Furthermore, many respondents pointed to the systematic flaw of Japan Agricultural Cooperatives (JA). Although the JA had frequently dispatched veteran staff to attend to inquiries and offer expert and practical knowledge, such practices were no longer available due to a lack of system in the JA where knowledge and practices were institutionally updated and taken over.

Second, landowners' motivation was being lost not only for farming but also for contributing to farmland maintenance. To reverse the trend of diluting attachment to and responsibility for farmland, some respondents expressed their expectations for sharing common awareness of the issues of future farm management. However, several respondents suggested that younger generations (e.g., those in their 40s and 50s) were not motivated to actively participate in local cultural activities (e.g., seasonal festivals) and community gatherings, but rather were

forced to play a role on such occasions. One respondent stressed the importance of incidental communications across different generations rather than pre-organized regular events, regretting the disappearance of a 'bar' (*aka-chochin*) in the district. Another respondent in his mid-60s expressed his wish for the mindset shift from the individually-based to the community-based upon job retirement, but also commented on the difficulties in closing the intergenerational gaps (Interview with a farmer on December 9, 2016):

> *Foremost, young people are not interested in the issues of the village. That's my greatest fear. I anticipate they may change their mind along with aging, because when young, they live as a compony employee. … After all, knowing the charm of farming is a key. Without a fun of getting covered in mud in farming, without attachment and joy, anything doesn't move forward. It shouldn't be a role. If people just leave weeds growing in sight, they can't savor the joy of farming. I think it's our responsibility to tell them, but it's quite difficult. … By being in a festival, drinking session, gossip session, and anything like that, fellows were motivated to get together and work together. … But now, there's no young people in such an occasion. … When I was young, we used to be introduced by the elderly to the theories. But people now just go home after gatherings, only getting their lunch boxes. They are not willing to have something taught, but rather feel annoyed at the elderly. The elderly also know about it, and they don't say much now.*

Motivation for residing in the community is a minimal necessity to keep the farming community viable and livable. With the initiatives that allow fewer people to manage farmland, some respondents cautioned against a lack of places for jobs and education which had been receded along with a series of administrative mergers and dissolutions. In particular, one respondent urged additional policy support to create job and educational opportunities in underpopulated areas. Without any drastic change, however, several respondents suspected that the initiatives of farmland aggregation would worsen the trend of aging and shrinking population

along with disengagement and detachment from farmland. For instance, one respondent in his late 60s described a plausible scenario in the next few decades (Interview with a farmer on December 9, 2016):

> *I have thought many times, but have no idea about what we could change for the better. There is no way to stem the declining population. I get scared when I start counting the households that would remain. … I have a sense of crisis that our village will disappear. …We are now working on land improvement, but there will be some households leaving their farmland to responsible entities and moving away from here. Even if land is improved, but if people move out, it's sad. … People now say "U-turn" (i.e, moving back from cities), but there're only a handful of people trying to move back. In fact, there are a few but they again move back to cities. That's indeed bitter. … Farming can't be enough to feed themselves unless they really fully professionally engage in it, and there's no other job here. … We've cherished our hamlet, treasured the land of our ancestors, and taken care of paddies and forests while living. But, if we leave them up to responsible entities, some of us may move to even a bit easier places to live. … There's no need to be here. … Even now young people do so. They seek jobs that they like to do. There's no such a job here, and they move out to cities.*

5.5. Conclusion

The seven villages in District N were taking initiatives to improve farmland in combination with the FB program as a survival strategy to cope with aging and shrinking population in the face of agricultural adversity. The initiatives primarily aimed at facilitating productive and efficient farm management for a sustainable future of the community. Despite some uncertainties about the planned zones as late comers, both of the preceding and planned zones reached general agreement on the program adoption under adept coordination among different stakeholders led by NHDA, taking advantage of minimal local cost share supported by the current agricultural policies. Given the scheme where the majority of landowners would disengage from farming and

leave it to ‘responsible entities,’ few conflicts of interests arose in benefits shared among landowners from the initiatives. Thus, little compromise was needed to secure landowners’ interests and attachment to farmland.

The combined initiatives of the FB program adoption with land improvement placed Farm N as a major responsible entity to engage in communal farming, while accommodating several independent farms in tenancy. Farm N as a cooperative corporation took community-wide responsibility for handing down farmland as a ‘living property’ to the next generations. While taking advantage of scale economy with technological capacities, it allowed landowners to secure their attachment to rice and farming practices albeit with the change from hands-on experiences to monetary transactions (e.g., land rent, wages) and to maintain social relations and sustain spiritual fulfillment. Although communal farming could not fulfill all the individual needs and interests, economic dependency and technical and physical capacities were the principal determents to opt for either independent or communal farming, whereas either of the options were assumed to allow landowners to carry their responsibility for succession. As such, the current trend of agricultural downturn and aging demography expedited the majority’s shift from independent to communal farming.

For the sustainability of communal farming, drivers for program adoption could be contradictory. Landowners’ disengagement from farming was a key to farmland aggregation and consolidation into fewer responsible entities. However, this further facilitated their detachment from farmland and in fact was discouraging many of them from engaging in communal farming. It might even discourage them from staying in the farming community in the absence of alternative job and educational opportunities. Farm N was facing the challenges to stabilize its

farm management by securing sufficient labor for farming practices and ensuring economic feasibility. Furthermore, it would need to assure that next generations succeed to farm management. However, intergenerational gaps in the farming community were already widening and social relations were being fragmented. Attachment to farmland kept landowners in the community, but their perspectives on farmland, including intergenerational responsibility for farm succession, were drastically changing.

Chapter 6: Farmers' Participation in Alternative Tenancy Arrangements in a Flatland Suburban Community in the South

This chapter focuses on Village U, a suburban community located in flatland areas of Kaga region, Ishikawa Prefecture. It first overviews the status of participation of farmers (including those holding farmland but not engaging in farming) in the program as well as alternative tenancy arrangements in which many of the villagers have been involved. Second, it reveals their motivations for participation (or not) in tenancy arrangements. Finally, it explores emerging challenges and opportunities that the community might face in the next few decades.

6.1 Status of Participation in Tenancy Arrangements

In the beginning of 2017, the village had three cases in which landowners participated in the FB program to have their land cultivated by other local farmers. The cases present the FB's role in aggregating farmland by leasing land from retired farmers and lending it to either an independent farmer or the members of the Farming Union (*Eino Kumiai*). In terms of lenders, three owners out of approximately 80 landowners (i.e., farm households) constituting the Production Association (*Seisan Kumiai*) in the village were lending their farmland to the FB. These owners used to farm their land on their own but retired upon their participation in the FB program. In return they received retirement funds amounting from JPY 500,000 to JPY 700,000 (approximately USD 4,440 - USD 6,220) depending on the area of leased farmland (see Table 6.1). Their land was first leased by the FB and then contracted out to three different farmers, including one incorporated farm and two individual farms affiliated with the Farming Union. The

rent was settled depending on the conditions of farmland such as the status of land improvement, original yield, sizes, figures and access to roads.

Table 6.1 Status of the FB program Adoption in Village U

Case	Owners	Farmland [1)]	Tenants	Retirement funds [2)]	Rent (per 0.1ha annually)	Contract Life & Start Date
A	TS	3.2ha (32,061m^2): paddy	Union farmer IY (11,253m^2)	JPY 700,000 (Approximately USD 6,220)	JPY 9,000 (Approximately USD 80.00)	10 years: from 3/1/2015
			Union farmer KI (20,808m^2)			
B	KA	1.2ha (12,300m^2): paddy	Incorporated farm TA	JPY 500,000 (Approximately USD 4,440)	JPY 2,000 or 7,000 (Approximately USD 18.00 or 62.00)	10 years: from 5/1/2015
C	IS	3.0 ha (29,832m^2): paddy	Union farmer IY	JPY 700,000 (Approximately USD 6,220)	JPY 0-7,000 (Approximately USD 0-62.00)	10 years : from 5/1/2016

Note: 1) The farmland owned by Owners T and I extended across U and S villages. The farmland owned by all the three owners included both improved land and non-improved farmland. 2) The amount of retirement funds was determined based on the following initial standard for the fiscal years 2014 and 2015: i) JPY 700,000 per a household for leased farmland with the area more than 2.0ha; ii) JPY 500,000 per a household for leased farmland with the area more than 0.5ha and less than 2.0ha; and iii) JPY 300,000 per a household for leased farmland with the area less than 0.5ha.

The rest of farmland in the village was managed by either the landowners themselves or others through direct contracts between owners and local farmers. Besides consignment contracts for key rice farming practices, the direct contracts for tenancy were made in three forms: 1) the use-right setting with the Act on Promotion of Improvement of Agricultural Management Foundation (PIAMF Act); 2) the leasehold-right setting with the Agricultural Land Act (ALA); and 3) informal contracts. The study could not reveal the actual share of different types of contracts at the village due to the privacy policy in addition to the informality of the third form. Nonetheless, as discussed below, the interviews suggested that many farmers made tenancy

arrangements mostly through the use-right setting or informal contracts prior to the introduction to the FB program in 2014, while the leasehold-right setting was minimal.

The semi-structured interviews with 20 households (involving 24 respondents) detailed the actual status of their involvement in tenancy arrangements. As shown in Table 6.2, the households consisted of three types: 1) 2 farm households independent from the Farming Union (hereafter called 'independent farms,' including 3 respondents); 2) 9 farm households affiliated with the Farming Union (hereafter called 'Union-member farms,' including 11 respondents); and 3) 9 households holding farmland but not engaging in farming (hereafter called 'non-farming landowner households,' including 10 respondents).[403] The following section describes how they were or were not engaged in farming (Section 6.1.1), tenancy arrangements (Section 6.1.2), and farmland maintenance (Section 6.1.3).

[403] After it was first defined in the 1990 Census of Agriculture and Forestry, the Ministry of Agriculture, Forestry and Fisheries (MAFF) continues to define a 'farm household' as "the household who manages the area under cultivation not less than 0.1ha or who sells agricultural produce amounting to JPY 150,000 or more annually," and a 'non-farm household holding farmland' as "the household who is not a farm household but holds farmland under cultivation and/or abandoned farmland not less than 0.05ha in total (MAFF 2011a). One respondent identified his family as a farm household in census terms because he declared the revenue from sales of agricultural products made through informal tenancy contracts with another farmer, although he was not directly engaged in rice farming. Thus, I use the term 'non-farming households' rather than 'non-farm households' to inclusively mean those not engaging in farming but holding farmland.

Table 6.2 Status of Respondents Participation in Tenancy Arrangements

	Independent farms (n=3; 2HHs)		Union-member farms (n=11; 9HHs)			Non-farming owners (n=10; 9HHs)	
Property rights & farm/farmers profiles							
Ownership	Yes (Production Association) (n=24; 20HHs)						
Farming	Yes (n=14; 11HHs)					No [3] (n=10; 9HHs)	
Farming Union	No (n=3; 2HHs)		Yes (n=11; 9HHs)			-	
Corporate Status	Yes (n=1;1HH)	No (n=2; 1HH)	No (n=11; 9HHs)			-	
Tenancy	Tenants (n=11; 9HHs)				None (n=3; 2HHs)	Lenders (n=10; 9HHs)	
FB Program Participation	Yes	No	Yes [2] (n=2; 2HHs)	No (n=6; 5HHs)	-	Yes (n= 1; 1HH)	No (n=8; 7HHs)
Farm scale	50ha	12ha	2-6ha	1.2-2.5ha	2.3-3ha	-	
Age	60s	70s	60-70s	50-70s	80s	60s	60-70s
Roles & Responsibilities							
Farm management							
Rice farming	Individual					-	
Crop conversion	Individual		Collective			-	
Farmland maintenance							
Paddies	Individual					-	
Facilities	Collective						
Payment							
Property tax	100% (owned land)						
Rent	Yes				-		
Irrigation dues	100% (owned) + 50% (tenanted)				100 (owned)	50% (owned)	
Compensation							
Farm profit	Rice farming & crop conversion		Rice farming & share of collective crop conversion			-	
Per-diem [1]	Yes (on a voluntary basis)						
Rent	-					Yes	

Note: 1) Per-diem allowances are paid for collective farmland maintenance activities associated with agricultural facilities (e.g., weeding on farm roads, cleaning of irrigation channels) in which villagers participated on a voluntary basis. 2) This includes 1 formal tenant (1 HH) who made a direct tenancy contracted with the FB, and 1 informal tenant (1 HH) who were subcontracted by the formal tenant. 3) This means farming exclusively for paddy cultivation, and does not include vegetable growing on dry fields.

6.1.1. Farming

The households of respondents who directly engaged in farm management, were either Union-member farms or independent farms. The rest were non-farming landowners who lent their land to tenants. The Union-member farm households were taking part in the Union to share the use of agricultural machines for barley cropping so as to collaborate on crop conversion. Yet, these households were individually pursuing rice farming.

The Union was established in 2006 not only to reduce cost and improve profitability through shared use of agricultural machines but also to fully meet the subsidiary conditions for land-extensive farming (i.e., rice farming and crop conversion).[404] In response to the rice policy reform that limited income subsidiary recipients to large farmers, the Production Association opted to organize a group for communal farming to overcome the limited scale of individual farms and collectively meet the required size for the subsidiary support.[405] Despite the political intention to facilitate farm incorporation, however, the policy allowed for the practice of incomplete, partial communal farming called "*Edaban"* (branching) management method, by which an unincorporated group nominally shares the accounting for (often partial) farm

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[404] Small and/or elderly farmers (i.e. those other than certified farmers meeting the condition of a minimum size of farm management) were eligible for the subsidies for crop conversion as long as they engaged in production adjustment (MAFF 2007a). However, the measures for subsidizing paddy cultivation involving rice, wheat and soybean cropping (i.e., the Cross-Item Management Stabilization Measures) were applicable only to those meeting a minimum size of farm management. Thus, small and/or elderly farmers were ineligible for the subsidies for rice farming unless they belonged to communal farming to meet a minimum size (MAFF 2007a). Note that since 2015, the legal revision has rendered the measures applicable for those who do not necessarily meet 'a minimum size' but applicable to certified or communally-organized farmers who have 'an appropriately developed farm management plan' (MAFF 2014a).

[405] As part of the rice policy reform that followed the Outline Plan of Rice Policy of 2002, the non-product-specific management stabilization measure was decided in the Policy Principles for Management Stabilization in 2005 to be introduced from fiscal 2007 so as to economically incentivize large farms through income subsidies and improve the structure of land-extensive farming (Ando 2011; Niitsuma 2006; MAFF 2009) (also see Chapter 3). In particular, it specified the income subsidiary recipients to large individual farms (i.e., those with the farm management scale — which is measured by the area under cultivation and the area under consignment for farming practices — of 4ha or more in the prefectures other than Hokkaido where the size should be 10ha or more exceptionally) or communal farms with the management scale not less than 20ha in total, which also share the accounting and plan to be incorporated in five years, although these standard management scales could be adjusted depending on specific geographical conditions (Ando 2011; Ono 2010).

management, but allows its members to individually manage their small family farms (Ando 2011; Ono 2010; Hirabayashi and Ono 2014). As observed in many parts of Japan, the Union collectively managed barley farming solely under the shared accounting so as to qualify for the income subsidies, whereas individual farms managed rice farming under an independent accounting on a household basis.[406] Given no obligation to return the subsidies even if these groups fail to be incorporated as initially planned, the Union kept extending the target year of incorporation since its establishment in 2006 (MAFF 2009, 5).

The Union started with the involvement of all the farmers who were active in farming (Goto 2016). Some of them, mostly those who possessed agricultural machines for shared use, engaged in operation of their own or commonly owned machines for key practices of barley cropping (i.e., plowing, sowing, and mowing) for compensation, while others joined maintenance activities such as weeding. In return for collective sales to the Japan Agricultural Cooperative (JA), the revenues were pooled and redistributed to the members in accordance with the farmland area entitled to their farming (i.e., owned and tenanted land areas).

However, two largest, independent farms, including the incorporated farm and the individual family farm, opted out of the Union after a few years, although the rest were still involved as long as they were active in farming.[407] As reasons for their withdrawal, the respondents from the largest family farm highlighted better flexibility of farming practices,

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[406] Ando (2011, 39) called the surge of numerous communal faming groups "Rhapsody of Communal Farming" as a result from the introduction to the non-product-specific management stabilization measure that started in 2007 to condition the farm management scale for income subsidies. The emergence of communal farming that adopted the *Edaban* management method was observed nationwide but particularly in Tohoku, Kanto and Kyushu regions where individual farms had been dominant (Ono 2010; Hirabayashi and Ono 2014). Although this method was adopted in various manners in sharing the accounting and farming practices, the most typical type was to collectively manage crop conversion such as barley cropping and soybean farming but individually farm rice (Ando 2011; Ono 2010; Hirabayashi and Ono 2014).

[407] As of 2016, the Union involved 12 households after the farm retirement of 3 households in addition to the withdrawal of the 2 largest farms (Goto 2016) (Interviews with farmers on November 23 and 27, 2016).

including the time management and the ways of cropping. On the other, the respondent from the incorporated farm pointed to the systematic exclusion of tax exemption, to which the corporation used to be entitled but was no longer applicable under the involvement in the Union.[408] These two farms, both of which were run by full-time farmers, had machines and facilities to independently manage crop conversion. Many of the rest, if not all, including part-time farmers and full-time but post-retirement farmers, relied on communal farming for crop conversion.

Both the Union-member and independent farms were managing rice farming on their own. Each farm was independently responsible for both farming exercises and accounting, and in return profited from their own farm management. Different cultivation methods as well as planting different rice varieties resulted in different rates of profit. In particular, the strategy to profit from rice farming was different largely between the Union-member and independent ones. The former, dominated by part-time and post-retirement family farms, were selling their rice mainly to the JA that offered a stable sales channel but relatively cheap prices, though a few were additionally selling rice to individual customers. The latter, run by full-time farmers, were differentiating their rice farming to better profit in several ways, including farm-scale expansion, development of sales channels other than the JA, and product development. The incorporated farm put great effort in developing value-added products (e.g., organic varieties) as well as new sales channels (e.g., internet retailing).

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[408] Farmers who had been entitled to the grace period for inheritance tax payment lose their entitlement under their membership to communal farming, when they establish the usufructuary rights with a communal farming group (MAFF 2006b; N. Taniguchi 2004). Also, unincorporated groups of communal farming pay corporate tax when they engage in profit-making businesses (except for selling agricultural produce to certain consolidating stations such as JAs), although either individual or incorporated farms, who engage in profit-making businesses, could take advantage of income or corporate tax reduction by incorporating the depreciation cost in tax calculation (MAFF 2006b; NARO 2007).

Likewise, the potentials of securing successors were different between these two groups. The incorporated farm took on a few non-family members as full-time workers in addition to the family members of the corporate president as a family head.[409] The largest family farm was yet to secure a successor, but the son of the family head assisted in farming between other jobs. All the respondents from the Union-member farm households indicated absence of successors, given their children were absent either in farming or even in the village. Thus the Union members occasionally talked about whether to develop communal farming by incorporating rice farming as discussed below. At any rate, these two groups were not necessarily competing against each other, and often mutually supportive or dependent as in the case in which several Union members relied on the rice processing facilities owned and managed by the incorporated farm.

Within each farm across both groups, a family head was seizing rights and responsibility for entire farm management. He was usually entitled to ownership and use rights to farmland and assumed control of farming, accounting and sales. In particular, a family head was more firmly in control of rice farming. In some cases other family members assisted in a complementary manner, whereas in other cases, family heads (e.g., post-retirement farmers) engaged in rice farming solely with the help of agricultural machines. However, in dry-field farming, mostly as sidelines or for self consumption, other family members sometimes took a lead. For instance, the wife of the family head in the largest family farm stated her initiative of dry-field farming differing from rice farming (Interview with a farmer on December 12, 2016):

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[409] The presidency of the incorporated farm was transferred from the father to his son in January 2017, while the farther remained serving as a chairman (Interview with a farmer on August 19, 2018). As most of the interviews were conducted in late 2016, I basically present the interview results as of late 2016.

When someone asks us for tenant farming, my husband basically decides although he checks with me just in case. He likes rice farming at all, and wants to say 'Yes' whenever asked. Honestly I don't like rice farming, and I say 'No' to him once at least, but inevitably accept it, thinking about economical use of the machines. ... Preparatory work remains same or primitive even since after farming was mechanized. It was worse when I got married. In those days when the paths for machines were narrow, I had to repeatedly carry and place a portable bridge for a machine to path through to a paddy field before my husband on a machine arrived at the edge of a field, and then cleaned up the field after the machine traveled. ... There is an atmosphere that rice farming is being kept from women. As I work only with my husband, I don't go to the places like the Union, and there's no need to speak to them. The farming sector in general is made up of 90% male. Women after all have a backup position, and serve to support farming within a family without actively taking a responsibility. ... But I take 95% responsibility for dry-field farming. My husband only tills the field with a small tiller. .. I prefer crop conversion like growing barley and beans. Though he doesn't like weeding, I also do weeding and don't dislike it. ... When my husband says to me 'Here we go to rice paddy,' I unwilling say 'Year'. But when it comes to sowing for beans or weeding, I first say 'Here we go!'

The non-farming landowner households who were lending their land to either of these two groups, relied on other farmers for farming, although they belonged to the Production Association. Being economically reliant on other sources of income, these households mostly let tenants decide the way of farming including the kinds of crop. In return they received the land rent in the form of money and/or rice. In addition, some of them engaged in farming dry fields to grow vegetables and flowers basically for self consumption or pleasure.

6.1.2. Tenancy arrangements

The three cases of the FB program adoption manifest the trend to aggregate farmland in the hands of two groups including the independent and Union-member farms. This trend began before the FB program was introduced in 2014. The change brought about by the FB program

included the economic incentives for lenders in the form of retirement funds and the conditions and administrative procedures to be followed (e.g., 10-year contract life, contracts between the FB and the two parties (i.e., owners and tenants), and owners' farm retirement from rice farming).[410] Farmland aggregation into the two groups had progressed through the direct contracts between owners and tenants. The two largest, independent farms had been actively expanding their farm scale for commercial farming in the postwar years through tenancy arrangements. Among the Union-member farms, some with available capacity had been engaged in tenant farming on a kinship or community basis in response to the requests from incapacitated landowners.

The two independent farms had expanded their farm management areas through tenancy since the 1960s.[411] To attain economy of scale for commercial farming, these farms increased their tenanted land across Villages U and S by attending to emerging interests and needs for tenant farming in their neighborhood.[412] Initially they began with consignment for farming practices, but soon engaged in tenancy by leasing farmland from small part-time farmers who became unable to bear the production cost and time. The needs for tenancy from these small farmers amplified along with the price increase of machines and other agricultural inputs as well as the development of other industries such as *Kutani-yaki* industries that absorbed local labor.

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410 The conditions and procedures for the tenancy contracts under the FB program are detailed in Chapter 3.

411 The incorporated farm embarked on scale expansion through tenancy in 1965 (more actively from 1969), while the largest independent family farm did so in 1967 (Goto 2016).

412 Although the share of the tenanted land between the two villages was not identified through my interviews dated in 2016, Goto (2016) found that the area of tenanted land in S village accounted for 74% and 57% respectively for the incorporated farm (38 ha of cultivated acreage) and the family farm (9 ha of cultivated acreage) as of 2003.

Finally the cultivated acreages of these two farms reached nearly 50ha and 12ha respectively for the incorporated and family-run ones at the end of 2016.

Yet, in recent years both farms became passive about scale expansion. Although the incorporated farm used to put the biggest energy into scale expansion particularly after the completion of the land improvement project in 1999, it has shifted its priority to the development of sales channels and product varieties. Taking into account the recent economic trends involving rice price depreciation, the farm kept limiting the travel distance for farming (i.e., the work trip from the farm office to tenanted land) to a few hundred meters within the two villages so as to save cost and time for farm management. Thus the farm has limitedly increased cultivated acreage by passively accepting requests from neighbors and kin, though it used to constantly increase to 44.5ha around until 2010. Likewise the largest family farm was reluctant to expand due to aging, though not resisting requests from neighbors.[413]

Granting that these farms had been municipally designated as certified farmers since 2001, the official recognition of the factual cultivated acreages involving tenanted land under the formal contracts may matter for them to receive subsidiary support from the government.[414] However, their tenancy involved substantial informal arrangements. The informal arrangements for the incorporated farm accounted for about 20% of the total tenanted land. In consideration of

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[413] The family head of the farm presupposed the status quo of farm scale in the near future, given his aging as well as his uncontrollability of succession by his son who was assisting in farming between other jobs (Interview with a farmer on November 25, 2016).

[414] The official recognition of farm scale was one of the prerequisites for the eligibility of certified farmers who assumed to improve farm management through scale expansion and other means. In the system of certified farmers, farmers who develop a plan for the next five years to improve farm management through expanding farm scale, streamlining production and management control methods and other means are certified by municipalities in accordance with municipal schematic plans so that the certified farmers are eligible for various subsidiary programs such as the low-interest loan program, the farmland liquidation measures, the land improvement projects. (Honma 2010; Fujino 2011; Fujie 2016) (also see Chapter 2 for details). Though the criteria for certification had not been limited to scale expansion but also included intensification and streamlining (Honma 2010), the revision of the system's guidelines has allowed farmers to be certified if they meet the income level criteria regardless of their scale since fiscal 2017.

time and effort for formal procedures to be taken by both the tenant and owners, the farm pursued informal arrangements in principle for the land smaller than 0.1ha. As such, the number of cases of informal contracts, which were mostly made through verbal promises, exceeded the formal ones.[415] The largest family farm primarily relied on informal arrangements in recent years, though it had taken formal procedures in response to the municipal government approaches. Besides the trust between owners and tenants based on the neighborhood or kinship, the customary agreement on standardized rents at each Production Association of the villages often avoided or eased conflicts between the two parties, as it allowed for transparent terms and conditions of tenancy even without formality.

As one of the three cases of the FB program adoption, the incorporated farm leased the land from the FB. The landowner, who had heard about an opportunity of retirement funds available through the FB program, approached the incorporated farm to ask about tenant farming. In response, the farm consulted with the municipal government, where their tenancy arrangement was handled in the form of the FB program. In the interest of applying the existing tenancy contracts for the FB program, he, as both a tenant and an Agricultural Committee member, checked with the municipal authority but found that the existing ones would not be applicable to the program. Given that his farm was involved in tenancy arrangements with approximately 100 landowners, he stated the limited effect of the program on his circumstances:

> *I only see the FB program as one of several past or ongoing programs… Only few of many have been applied to the FB program here. Sooner or later many cases*

[415] The president of the farm indicated the recent increase in informal arrangements with small landowners, though most of the tenancy arrangements were officially made in his farther's generation for the one-year contract life (Interview with a farmer on November 22, 2016).

may be incorporated in the program, though it may depend on 'candy.' … The government set the target of at least 80 per cent of farmland in the country being farmed by responsible entities (Ninaite), for which the FB program is to expedite farmland aggregation. But in reality we have already attained the 80 per cent of the accumulation rate even without the FB. It's for sure that the accumulation rate is very substantial if we take into account all the tenancy arrangements including the informal ones. … I asked a question at the Agricultural Committee last December, and was clearly told by the municipality that the existing contracts won't be applicable to the program. … It's indeed the historic fact that the reality has preceded before the policy. I don't much care about the very late comer, the FB program.

The Union-member farms were farming their own land at least. In addition, some of them engaged in tenancy on a kinship or community basis if they had available capacity (e.g., time and machines). Two respondents from this group had been officially recognized as certified farmers since 2012 and 2015 respectively. Thus they were willing to expand their farm sizes to 8-10 ha but not beyond, based on the existing mechanical capacity. In general, the Union members were less aggressive about tenancy than the independent, full-time farmers given their lower economic dependency on farming. Some of them became full-time farmers after retirement from other jobs, but were reliant on pensions. To render their available but limited capacity for tenancy, they often shared responsibility for tenant farming among the active farmers, sometimes including the two independent farms. Compared to the tenancy arrangements held by the independent farms, most of those by the Union members built on more intimate relationships between owners and tenants, often between kin or neighbors living next to each other. Given this intimacy, they served owners' requests to the extent which they were capable, but if not, partially shared responsibility with other available farmers. Mostly they made informal arrangements between

kin. Even between neighbors, they often made informal arrangements, but in some instances they did paperwork so as not to cause trouble with neighbors.

The strategy of sharing responsibility for tenant farming applied to the FB program adoption. Two of the three cases of adoption officially involved two certified farmers as tenants (see Table 6.1). However, the actual status of tenancy arrangements involved informal subcontracts to share responsibility among three Union members (see Tables 6.3 and 6.4). In each of these two cases, the process began with a farm retirement of each of the two landowners: one at the age around 60 who decided to retire from farming after sickness (Case A); and the other who passed away and whose son was unable to succeed to farming because of his job in another prefecture (Case C). As a rule of practice, it had to be determined who would become tenants so as to have their farmland lent to the FB. Largely based on the command by the Union president who doubled as the president of the Production Association, the arrangement was decided through consultation in the way which a few available Union members shared responsibility for tenant farming. Consequently, in the first case (Case A), two certified farmers officially leased farmland from the FB, whereas a part of the land was informally subcontracted to an uncertified farmer. In the second case (Case C), one certified farmer formally leased farmland from the FB, while he subcontracted a part of it to another certified farmer. To pay land rent to the owners, the subcontractors directly paid their shares of rent to the official tenants who paid the full amount of rent to the FB so that the owners received a full amount of rent from the FB.

Table 6.3 Tenancy Arrangements under the FB Program (December 2016)

Cases	Owners	Farmland (ha)	Tenants	
			Official (Shares of land: ha)	Actual (Shares of land: ha)
A	TS	3.2	Union Farmer IY (1.1)	Union Farmer IY
				Union Farmer KI
			Union Farmer KI (2.1)	Union Farmer MA (1.0) - informal
B	KA	1.2	Incorporated Farm TA (1.2)	Incorporated Farm TA (1.2)
C	IS	3.0	Union Farmer IY (3.0)	Union Farmers IY
				Union Farmers KI - informal

Table 6.4 Tenants' Profiles and Their Shares under the FB Program (December 2016)

Tenants		Farm management status					Land leased from the FB	
ID	Age	Cultivated area (ha)	Affiliation	Management	Engagement	Certification status	Official (ha)	Informal (ha)
TA	64	50	Independent	Incorporated	Full-time	Certified	1.2	1.2
IY	59	N.A. (>8)	Union	Family-run	Part-time	Certified	4.1	1.2
KI	65	6	Union	Family-run	Full-time (Post-retirement)	Certified	2.1	3.0
MA	73	2	Union	Family-run	Full-time (Post-retirement)	Uncertified	-	1.0

The informal arrangements under the FB program developed to fill the gap between official qualifications of tenants and their actual availability. To serve as a tenant under the FB program, a farmer is supposed to be fully qualified for a long-term tenancy contract (usually for 10 years), and procedurally has to be listed on the Community Agricultural Master Plan (CAMP) (see Chapter 3). In Case A, albeit being listed on the CAMP, the uncertified subcontractor at the age of 73, failed to be well qualified as an official tenant while he presumed his availability to

farm the land at least for the next 4-5 years. At the same time, the two certified farmers were officially qualified, but were not practically available for all the tenanted land given their capacities (e.g., time and machines).

Moreover, the FB program did not provide incentives for tenants to formalize tenancy arrangements in any case. The subcontractor of Case C (identical to one contractor in Case A) in his mid 60s, was a certified farmer but noted little advantage from becoming a formal tenant, while he hardly found benefit from being a certified farmer to take advantage of his status to receive subsidiary support.[416] Although data were not available due to my inaccessibility to the official tenant of Case C (identical to one contractor in Case A), the tenant might have prioritized his kinship with the owner as a common practice in the village and thus has taken responsibility for the official contract despite his limited availability for farming.

6.1.3. Farmland maintenance

The activities for farmland maintenance associated with each paddy were under the customary jurisdiction of farmers engaging in cultivation of each paddy field. Those related to agricultural infrastructure (e.g., farm roads and large irrigation channels) fell under the responsibility of all the villagers entitled to farmland, including non-farming landowners. Most of the former activities, which were conducted in and around each paddy field, continued to be practiced individually by each farm. Yet, some of the activities had become collectively exercised by

[416] The subcontractor stated that he became a certified farmer four years ago at the suggestion by the Union president as he learnt that he would be able to receive subsidiary support to purchase agricultural machines. However, he found few opportunities for smaller certified farmers like himself to receive subsidies given the limited budgetary framework at the government (Interview with a farmer on November 23, 2016).

several active farmers of the Production Association through the technical development (e.g., disinfection by unmanned aerial vehicles) particularly after the land improvement project.

Despite the continued practices by those engaging in cultivation, the way of sharing cost of maintenance for tenanted land was in transition along with the change in land rent. In 2015, the Agricultural Committee at the municipal level re-examined the reference prices of land rent across the city, which the Committee annually presented as reference for individual tenancy contracts. This review was done to address the farmers' concern that the market prices of land rent used as reference were not reflecting farm profits affected by the recent economic trends. In response, the Committee conducted a questionnaire survey to investigate factual rents including the share of maintenance cost, and accordingly proposed to re-adjust reference rents as well as shares of maintenance cost between landowners and tenants.

These revisions caused a clash between owners and tenants. As the survey results showed, the ways of sharing maintenance cost and the land rents varied across different villages. For instance, the irrigation dues were 100% borne by landowners in Village U, whereas they were 100% for tenants in Village S. Based on the survey results, the Agricultural Committee recommended that the dues should be optimally halved between owners and tenants. The amount of dues was not necessarily inexpensive (JPY 4,200 per 0.1ha: i.e., approximately USD 37 per 0.1ha), and thus the change drew attention from owners particularly in S village. In an attempt to change the rents as well as the share of irrigation dues based on an agreement at the Production Association by following the recommendations from the Committee, some tenants faced hard negotiations with owners in Village S where the share of dues borne by owners was about to

increase from 0% to 50%. The respondent from the incorporated farm explicated the confusion arising from the change (Interview with a farmer on November 22, 2016):

> *As did yesterday, today I have to go and explain to each landowner about the reduction in land rent. I should address their questions and concerns about why it will decrease that much and whether their cost burden may go beyond their benefit. … In addition to the rollback of rent, there is a change in the share of irrigation dues. They are caught in that issue pretty much. … In Village U landowners have been paying 100% of dues, and in Village S the cultivators paying 100%. Of course, the rent itself has been different between the two villages. The standard rent was set by Shaku-kan system (Japanese measuring system) in these two villages. In Village U, the rent for improved land per 1 tsubo (3.306 m2) was 1 go (0.3306 m²) 4 shaku (330.6 cm²) and in S village it was 1 go 2 shaku. The things were coming from the era of Goko-gomin (five for the lord, five for the commoner in Edo Period). … When the presidents of Production Associations from different villages discussed this issue in 2014, which was prior to the revision by the Agricultural Committee, I heard those from Villages U and S talked about the rent in Shaku-kan system. Others were perplexed, but it was like …"We are still talking, wearing Chonmage (Japanese traditional topknot haircut). What we do is Shaku-kan system!" … Since 2016, the measuring system for rent has changed from the Shaku-kan system to the metric one, and the in-kind payment principle has changed to the monetary one. This and that has changed, and people have been puzzling over.*

Then, he continued to detail the conflicting perspectives to the benefits from tenanted land between owners and tenants:

> *… Though it was presumed, some owners (in village S) say "Why do we have to pay irrigation dues? As you use water, you cultivators should bear 100% of the dues as before." It's indeed complicated, as agricultural economists has been arguing the issue of 'useful expenses.' … The market price of land rent for rice paddies is said to be twice as much as that for dry fields. If we pay irrigation dues on top of the rent, I want to say, we pay a double of the double, though I don't say to them as the things would become too complex. In any case, as there is the term 'Ko-so Ko-ka' (taxes and public dues), I understand that both the fixed property tax and the dues are attributed to owners. … The owners of large plots on improved land in our region would surely benefit from owning the land even if they pay tax and dues, but those having tiny plots may lose. In some*

region (where profitability of farming is very low), owners pay management charge to tenants rather than receiving rent. Some owners may think it's preferable to abandon their land if they have a deficit after paying the fixed property tax, irrigation dues, and management charges instead of receiving rent. If that kind of sleazy way of thinking becomes common, it would be a problem.

The large agricultural facilities in common use were collectively managed by those entitled to farmland including non-farming landowners. The collective maintenance activities were administered by the steering committee as a part of the Production Association. This steering committee, called the Environmental Conservation Group for Farmland and Water, consisted of about 10 members from the Association, who were appointed to serve paperwork, accounting and communications. With the aid of financial support from the government, the committee facilitated three activities: seasonal events; routine water management; and engineering works. First, the seasonal events were annually held in every spring and fall to jointly clean water channels and weeds on farm roads. One representative from each household as a member of the Association was to participate on a voluntary basis (i.e., normally about 30 villagers in total). In return each participant received a per-diem allowance with the amount of about JPY 4,500 (approximately USD 40.00). Second, water management was contracted to one member who operated the electric-powered pipelines for pumping water and received compensation for the services. Third, the engineering works such as plastering of levees across paddies and supplementing gravel on farm roads were outsourced to vendors as necessary and financed with the budget from the government subsidies.

Technical improvements, particularly those enabled by the land improvement project, allowed for labor saving of these maintenance activities, for instance, through electrification of

water management and mechanization of weeding practices. In addition, a series of government programs, which began in 2007 to support community-based farmland maintenance, financed the collective maintenance activities at the village (Nakatani 2016; Komiyama and Ito 2017). The Production Association adopted these programs in 2007 and was receiving the budget of approximately JPY 3 million (approximately USD 26.4 thousand) annually for the past several years with no financial cost borne by the landowners.[417] Several retired municipal officials as landowners were serving as committee members to handle administrative procedures. The participation level of villagers in the seasonal events used to be declining along with the falling of farming population in the village. Since the village adopted these programs, however, the participation had been relatively stable due to the per diems despite the aging of the participants.

6.2 Motivations for Participation in Tenancy Arrangements

Adoption of the FB program was limited on the grounds that the tenancy arrangements conventionally preceded on the basis of kinship or community. Given that the existing tenancy contracts were not directly transferable to the FB program, the three new cases, which were qualified for retirement funds, entered into contracts under the FB program. The interviews suggest that the farmers' involvement in (or absence from) a certain tenancy arrangement, whether it is under the FB program or conventional arrangements, rest on three key factors: economic feasibility; kin-based life security; and tensions between community and individual wellbeing. These factors were neither mutually exclusive nor necessarily complementary. They

[417] According to a respondent who served to the Environmental Conservation Group for Farmland and Water at the Association, the program budge was shared by the national government (50%), the prefectural government (25%) and the municipal government (25%), while no financial cost was borne by the local community (Interview with a farmer on November 23, 2016).

were often conflicting, but influenced the respondents' decisions reflecting their circumstances. In regard to each of the factors, the following section describes how both owners and tenants were motivated to participate in a certain tenancy arrangement. It also adds to the explanation of why owner-farmers were not involved in any tenancy arrangements, while farming their land on their own.

6.2.1 Economic feasibility

The FB program provided funds for the owners who decided to retire from rice farming and economically incentivized them to participate. Yet, the level of their economic reliance on farming affected their decision on wether to retire and render their land available for other farmers. Certainly, one owner (in Case B) suggested the idea to the tenant to make a contract with the FB so as to receive the funds, while another (in Case A) showed his appreciation for the funds upon his retirement. However, the alternative means of living allowed for their retirement, which followed the decrease in their capacity for farming on their own. For instance, Case A illustrates that the owner decided to economically rely on a pension and savings at the age of around 60 even after recovering from sickness.[418] Case C also suggests that the farm family of the owner might no longer need to rely on farming due to the decease of the previously active farmer as well as the secured job for his son other than farming. These cases suggest economic feasibility as a key to farm retirement and then participation in the program.

The cases of conventional tenancy arrangements affirm economic feasibility as a key determinant for landowners. Among eight households who were non-farming landowners

[418] The respondent suggested that his sickness was also related to farming that sometimes involved frictions among the villagers and emotionally and spiritually affected his wellbeing (Interview with a farmer on August 20, 2018).

engaging in conventional tenancy arrangements, six pointed to the lack of farming labor within a family (i.e., decease or health impairment of previously active farmers, time available farming reduced by other jobs) to discontinue farming. Two others noted the increased cost for machines and other materials that exceeded available capacity of part-time, small family farms (e.g., 0.5-1.0 ha) who were economically dependent on other jobs. As such, economic infeasibility facilitated their farm retirement to engage in tenancy and, at the same time, economic reliance on other jobs allowed them to do so.

Likewise, economic feasibility was a critical factor for tenants to determine whether and how to engage in tenant farming. All the respondents participating in the FB program as a tenant in practice admitted the importance of profitability.[419] Nonetheless, two of them involved in the Union highlighted their laboring capacity as a fundamental criterion to determine to what extent they engaged in tenant farming, differently from one respondent from the incorporated farm who showed a stronger interest to improve farm profitability. In other words, they were not motivated to go beyond the current level of farm investment since their families primarily relied on pensions as a source of income and lacked successors in their families. They agreed to engage in tenancy to the extent which the additional labor for tenant farming would not undermine economic feasibility. Thus, they shared responsibility for tenant farming even informally among the members depending on their available capacity.

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[419] For instance, the respondent from the incorporated farm specified the following five criteria to evaluate farmland, which affected economic feasibility and thus his interest in farmland use: 1) soil fertility; 2) water use conditions; 3) accessibility to roads; 4) sizes; and 5) figures subject to mechanical use(Interview with a farmer on November 22, 2016). The respondent who was an informal subcontractor under the FB program, mentioned land profitability as one of the criteria to determine the benefit from farmland, which also motivated him to engage in farming (Interview with a farmer on November 23, 2016). In addition, the respondent, another contractor affiliated with the Union, shared his interest in recovering his investment in agricultural machines by expanding farm management scale through tenancy (Interview with a farmer on November 23, 2016).

This approach to tenant farming was based on the existing investment level and applied indiscriminately to most tenancy arrangements, given the indifference of economic incentives for tenants between the FB program and conventional arrangements. In general, the Union members took responsibility for tenant farming as much as they were available based on their existing farming capacities, and if it went beyond such capacities, they transferred responsibility fully or partially to other available tenants. For instance, one owner first lent his land to a neighboring family farm but moved the entire tenancy to the incorporated farm upon the decease of the original tenant in the absence of successors. Another owner lent a part of his land to a neighboring family farm based on its farming capacity, but asked the largest family farm to take care of the rest. Likewise, one tenant affiliated with the Union shared responsibility for tenanting the land owned by his brother with the two independent farmers. Two respondents from two different farm families branched from a same head family shared the tenanted land at a ratio of 6:4 based on their availabilities. In addition, two owner-farmers suggested that they stretched their capacities to take care of their own land.

The independent farms had actively engaged in tenant farming so as to expand farm scale and bolster economic viability of farm management, but appeared to be less active in recent years. A respondent from the largest family farm in his mid-70s suggested labor as a factor not to further expand, while another from the incorporated farm in his early 60s with a secured successor suggested the limited role of scale expansion in improving farm profitability. The latter used to purchase farmland even in debt but for investment, if given opportunities. Despite more availability of farmland for tenancy than sale in the land market, he has seen that land purchase allows his farm to expand farm size more stably than tenancy, as is often the case that tenancy

accompanied with temporality and inflexibility sometimes hinders farmers from long-term investments and land conservation (Rotz, Fraser, and Martin 2019; Varble, Secchi, and Druschke 2016). Lately, however, his perspective on farmland as a resource of farm management has changed based on his assessment of economic feasibility as he mentioned:

> *Quite some time ago, I attended a lecture and learnt that the reduction of gross revenue by 13% would be compensated only for scale expansion by 54%. I was thinking that 13% reduction in revenue could be offset by 13% expansion in farm size, but I was wrong. This had a strong impact on me, and I realized that I should be more mindful of price rate of rice. … Still I see naturally scale expansion through tenancy as the way forward. … But I might have lost my motivation to buy farmland. My value judgement is changing. … In my farther's generation, he surely purchased farmland in debt, taking advantage of the public-financing systems. Though not exactly the same, in my generation I have continued to buy farmland if given the chance. … Tenancy has been more socially common today, and if other farmers had been motivated for land purchase, I might have been more motivated to competitively buy land. … In the next generation, to those who has never experienced the real estate myth, purchasing farmland in debt would be completely unthinkable. … In April this year, when I contacted them to talk about lowering rent, three absentee owners, who were siblings of each other, proposed deals to sell farmland that I used to tenant. I acceded to the deals, but wondered if I might be still singing an out-of-date song even when the societal environment around land has changed. … As might be expected, they had approached other farmers to propose a deal. When I was approached, I checked with another active farmer whether he was comfortable for me to make a deal. He said "I'm quite enough of land purchase." … I did consult with him, who is a local in Village S, as I'm somewhat an outside there. In my generation, I've come to make a ceremonial greeting (jingi) to consult local farmers prior to making a deal. … In my farther's generation, he made a blunt and direct deal without any greetings with others. Otherwise he would have been killed!*

6.2.2 Kin-based life security

By design, the FB pursues anonymous matchmaking and intervenes in tenancy to officinally make a contract directly with owners and then tenants. This is different from the kin- or community-based arrangements that were conventionally made in the village. Despite the FB's

contractual involvement, however, the actual matchmaking was indifferent between the FB program and the conventional arrangements. This was because program adoption practically conditioned the pre-agreement between the two parties prior to the official contracts. Thus, the tenancy arrangements even under the FB program were based on either kinship or the local community. In general, the matchmaking prioritized the connections based on kinship over those based on the village community, as one respondent affiliated with the Union summarized (Interview with a farmer on November 23, 2016):

> *For tenancy arrangements, the landowners who have decided to retire from farming would go either to one of the two largest farms or to a fellow of our Union. The latter is mostly based on kinship, or relatives. If not, it's based on immediate neighborhood. It's often the case that they ask kin or close neighbors if they are still active in farming, rather than asking less intimate large farmers. Usually it's like "If that was the case I asked a corporate farm, I would prefer asking my relative to have our land farmed."*

Out of 20 households, the study found that at least 7 households were involved in kin-based tenancy arrangements. The interviews suggest that non-farming landowners rely on their kins, if available, to secure the land as a family asset and at the same time fill a farm-family role in the community in the unit of the large family system. This mechanism appeared to build on the histories of the prewar landlordism and the postwar land reform. For instance, one non-farming landowner had married into a farm family, which had branched from a head family, and in due course lent his farmland to the head family for tenant farming. His cousin from the head family provided the context for sharing farmland among the members of the large family system,

recalling what he had heard from his father and grandfather (Interview with farmers on November 25, 2016):

> *In the prewar days, our family, the family head, was a landlord with about 6ha of farmland. In the land reform, 3ha remained with us as regulated, and the rest moved to tenants and brothers. My farther was the eldest son among eight siblings including four males. Along with the reform, it was the way that the head family shared its land, including its title deed, with the branched families as much as they can have enough rice yield to feed the members of each family. … In the order of seniority, while remaining with 3 ha for my farther as the eldest, 0.4ha was given to the second brother, about 0.2ha to the third one, none to the forth who married into another family, and the rest to the tenants. … Nobu-san (another respondent as a non-farming landowner) is married with the eldest daughter from the family of my father's second eldest brother. So, he is my cousin. … Rent payment as rice for home consumption has been the customary practice of the village, and as he's from our branch family, I think we pay rent with a little higher rate than the village's standard.*

With this context, the non-farming landowner, *Nobu-san (pseudo.)*, explicated how and why he was involved in tenancy, calling his cousin from the head family '*Aniki*' (Brother) (Interview with farmers on November 25, 2016):

> *After I married into our family, my father in law was farming as much as he could do, while working for painting of Kutani-wares. But, we had to rely on tenancy due to his aging and health impairment. …There's no inconvenience in a verbal promise for tenancy, though I think I have been causing much trouble to Aniki. … As it was preciously given, I think we want to somewhat take advantage of the land rather than eating the family out of it, though we are not farming now. … It depends on Aniki, depending on to what extent he would be physically available. … As there's the issue of tax, if we really don't need the farmland, we may want to sell it to the corporate farm even at a desperate price. Otherwise, it would be a problem. … For now, we're leaving everything up to Aniki, including irrigation dues. … In farmland maintenance, I'm willing to contribute to assisting as long as I'm capable. I say to Aniki I'll do whatever I can do, but he hasn't yet asked me for help. I quite heavily depend on him. … As a member of the Production Association, I don't have much to say in particular, as I basically leave the things up to Aniki.*

The interviews with others affiliated with the Union reinforced the motivations of tenants to be responsible for securing and maintaining farmland within the large family system. In response to a request from another member of a large family system, a cousin of the landowner developed a strategy to control tenancy under his own responsibility despite his limited availability (Interview with a farmer on December 11, 2016):

> *My best cousin, like a brother to me, who was the eldest son of our head family owning about 3ha, passed away three years ago. When he was sick in bed for the last year, he said to me to take care of his farmland as he didn't want to lose it. As it was too much to me, I shared the task with another 6-year younger cousin, the eldest son of the family of my farther's second brother, asking him to take care of 60% as I would do for 40%. ... Initially there was no official contract, but we followed the rent payment standardized at the Production Association. ... My best cousin had four daughters, among whom three had married into other families, but after my cousin's passing away, a remaining one took a husband, who is a banker and obviously unavailable for farming. There, upon her marriage, I pursued an official contract through the Agricultural Committee, for which I'm officially responsible entirely. ... In practice, for the first year, I was farming more than 2ha in total, including 1ha of my own and 40% of 3ha of my cousin's (i.e.,1.2ha), but it was too much. Then, I subcontracted a part of my cousin's land (0.5ha) to my close, trustable friend additionally. There's no official paper work for these subcontracts, and I transfer the rent payments from the subcontractors to the head family while all we know about these arrangements. ... Officially I seem like a big farmer managing 4ha, though I cultivate 1.7ha actually.*

In his mid 70s, he continued to elaborate how these informal arrangements work to extend the life security function of the family:

> *Ankiki (Brother) of the head family, my best cousin, graduated from an agricultural high school, had a strong attachment to farmland. ... When his daughter and son-in-law came and visited me, they said he used to say to his daughter "Absolutely, don't let our farmland go." ... Aniki was the only, eldest*

son in a family and so I am, and we were very close, also in age. … The truth is I feel like letting it go, but as he was really worried about it… To me, if I become unable to do any longer, we should let it go, for example, to the corporate farm. I've already expressly said to the head family about that. … For now, we should keep it in our kin. … The current arrangements work OK to secure the trust relationship or kinship. Though I have asked a friend of mine, I can easily say to him to farm the paddies like this or that. He is a diligent man, and helped me a lot. Actually if he is not a like-minded friend, that'd rather a tall order to fill.

This extended kin-based tenancy did not necessarily apply to all the cases. To follow the owner's will, farmland can be more securely and even flexibly managed within a stem family, rather than relying on tenancy based on an extended kinship. As such, two owner-farmers absent from tenancy confirmed that both secured their livelihoods through earning from other occupations but at the same time followed their late fathers' wills to keep farmland as a family asset. In particular, farmland often served as a 'reserve' to ensure life security of family members, not only to feed them daily but also to cover expenses in a pinch. Given the role of farmland in securing family's livelihoods, some of the owners chose to lend their farmland to others based on their assessment of economic feasibly rather than kinship. For instance, one respondent in his early 60s, who was a non-farming landowner, noted his preference for the corporate farm over his relatives, though assuming that the land property should be kept under kinship (Interview with a farmer on December 11, 2016):

The tenant is my buddy. I could have let it out to my relative, but rather easily have the land farmed by the corporate farm, and when needed, I'd easily ask him to return it as he manages a large farm. … To allow me to come back to farming, I keep our tenancy as a verbal promise, though I don't know if I can return to farming. … Nothing else is as easy as rice for selling off. The rice price has been depreciated, but it makes sense economically if we incorporate subsidies, salaries or pensions in farming. Yet I don't know to what extent this would continue, as my physical capacity

will decline and none of my children can take over. In the end, I should hand it over to someone, but as I can't let it go to anyone else, I'll pass it to Ni-chan (like brother, but a cousin), but he is inexperienced. … So I like to develop a way forward. … Farmland is a household asset. Though it's a classic way of saying, it is what we keep and manage, and then hand over to the next generation on the best possible conditions, as it is nourishment to generate our resources. It's a bit different from 'real estate' we transact from right to left. … When needed, we sell it to someone else in the village, but again when needed, we buy it from the one. So it's like an 'insurance' in the village. This may not work today, … but we sold three paddies when I went to college.

To manage farmland on a stem-family or even extended-family basis, the roles and responsibilities of the constituent members are not always equal. They are streamlined economically under the family headship. The interviews with four wives of the farm family heads pointed to diversified roles of females in accordance with the life stages of the family members, including childcare, seasonal assistance in rice farming, vegetable farming for home consumption, housekeeping, and elderly care. At the same time, farm management, including accounting and decision-making of tenancy arrangements, were mostly led by a family head. The respondent in her mid 70s who married into a head family of a multigenerational household, described how the constituent members mutually maintained kinship (Interview with a farmer on December 13, 2016):

I handle the household accounts, pooling money from my husband, my son's family and my daughter, in addition to my own pension. And, my husband manages all the farm accounting, including rent, irrigation dues, expenses for chemical herbicides, fertilizers. … We also engage in tenant farming for two branch families…. They may have asked my husband, and I have nothing to do with such communications. There's no consultation with me. I say to him "It's ok to take care of our family's, but let others' go," but he doesn't listen to me, and I just work. I'm now 74 years old, and so my husband is. Farming is physically tough. I guess as they're relatives, we have to do fatally. They are branch families…, and I guess they can't allow themselves to ask others. If they asked us first and then were turned down, they may ask others. After all, there's an order they think they ought to follow, I

guess. ... My husband was raised with much care as the eldest son of the head family. ... As he was working in the employment, the uncles took care of most preparatory work for wakes and weddings, while he sat at the head table and gave speeches. They often jokingly say "He doesn't do anything and comes late, but sits and greets at the head." Even uncles stand around and take care of him, and I can't step ahead of him. ... That kind of idea has been completely imbued with them since their childhoods. Even when my son attended a wedding on behalf of my husband, he, the eldest son of the head family, sat at the head above our uncles, though he's a younger brother of my daughter.

6.2.3 Tensions between community and individual wellbeing

In practice, the village community facilitated tenancy arrangements either under the FB program or in a conventional form. To participate in tenancy, the villagers appeared to leverage the self-governance capacity of the village through: information sharing, rule-making, and collective work of farmland maintenance. First, policy information related to farmland was basically shared through the Production Association across all the landowners in the village. For instance, the information on the subsidiary advantage for farm retirement under the FB program was conveyed by the president of the Association to the one who planned to retire. Besides, the visibility of farming practices or verbal communications in the neighborhood allowed owners to make a judgement about who could be a capable and appropriate tenant in terms of age, availability of successors, and mechanical capacities.

Second, the Association rendered the rule-making of tenancy arrangements transparent and legitimate. It held a plenary session annually involving all the landowners to share the planning and accountings of its activities, whereas its board members (about 10 members) gathered once two or three months to develop the plans. In particular, the Association evaluated the standard rents for revision every three years to accord with the socio-economic status of

farmland. The standard rents did not necessarily have to be followed, but were used extensively to legitimize the terms and conditions of tenancy arrangements.

Finally, the group organized under the Association (i.e., Environmental Conservation Group for Farmland and Water) facilitated and coordinated collective farmland maintenance activities, taking advantage of government subsidies. This collective effort involved non-farming landowners, and thus complemented farm management by a limited number of active farmers under tenancy.

This collective capacity appeared to build on individual wellbeing. This is inferred by the strategy by which tenants shared responsibility for farming among other available farmers. Many respondents who were post-retirement farmers affiliated with the Union mentioned their own health promotion as a key motivation to engage in farming, while some added their personal hobby to it. This suggests that many tenants were involved in tenancy as much as they could satisfy or at least would not sacrifice their individual wellbeing.

Though the concept and measurement of wellbeing are arguable, wellbeing involves tangible and intangible components (e.g., income, pleasures/pains, participation in society) as well as subjective and objective aspects (e.g., satisfaction/dissatisfaction, optimism/pessimism, health) (Gasper 2007; National Research Council 2001). Moreover, these multiple components and aspects are often contradictory, conflicting and dynamic (Dodge et al. 2012; D'Ambrosio and Frick 2012). As societal participation is one component of wellbeing, the perspective toward communal activities varied across individuals depending on their experiences, histories and current states. For instance, two female farmers differently viewed the farming practices in

relation to their community participation. One referred to the current state of farming (Interview with a farmer on December 12, 2016):

> *As paddies have been enlarged with better accessible roads, rice farming, including the preparatory and aftertreatment work for which I'm responsible, became pretty much easier. … In the past, many of the wives were present at the fields, and I could easily find my friends to have a chat and a bit of relaxation. I often had small talk and snacks with them, without my husband's seeing, and that was a bit of recreation. Now I can see few female friends on the fields, and I can't take such a pleasure. … Since the launch of the Union, I have seen much fewer females there. Though all the farm families, except our family and the corporate farm, are involved, there's no need for females to get involved as males operate the machines. … I can only take care of our family's at ease, but there's no need for collaboration and communications for us somewhat unfortunately.*

Another described the similar state but from a different perspective (Interview with a farmer on December 13, 2016):

> *When the village published a brief on the land improvement project, I found no mention of females' contribution. Rice farming is certainly masculine, but there's no recognition of females' power behind the scenes. It has many pictures of males but only a few of females spending time with the sun. … I know little about collective maintenance, as I only engage in farmland for which our family is responsible. … One person from each household is supposed to contribute to collective maintenance such as cleaning of channels. Though I don't know about the current state, quite some time ago my husband had a schedule conflict, and I joined the cleaning, but the allowance was halved! I was a bit upset, as I was working hard, though some men were doing inefficiently, taking over a cigarette. … After the land improvement, I can see only a few females on the paddies, and just say hi to them. When the paddies were smaller, we had to greet and talk. Those who were talked might have also felt bothersome, we had to behave as a good neighbor. Otherwise, I'd have got a trouble. Now, thanks to the large paddy with 100-meter width, where I travel by a tractor, it doesn't matter whether I loudly sing a song or fight with my husband. No one can hear me well. .. That's easy to me. I have some other jobs to do … I appreciate getting away from sometimes hassle interactions.*

Furthermore, the same individual faced a dilemma between different components of wellbeing, leading to a strategic choice of a tenancy arrangement. In relation to his involvement in communal activities, for instance, one non-farming landowner described his perspectives on farmland and the strategy to accommodate his values in the tenancy arrangement (Interview with a farmer on December 11, 2016):

> *In terms of the benefits from farmland, I see the monetary one, and the peace of mind, which is a sense of belonging to our village. It's the same as a fellow-feeling that we control our stuff on our own. It's said that animals feel comfortable in 'Mure' (a flock). It's similar to that, as 'Mura' is called 'Mure-shakai' (flock society). … As there used to be an Agricultural Cooperative in our village, … that's the way in U village, that when a family couldn't farm, we asked another family in the village so as to secure and manage farmland in the village. The prime example of that is the corporate farm. We, villagers, have collectively managed our farmland and expanded it also by leasing it from neighboring villages. … Since our childhood, we've been told "U village, it's such a 'Erai' (terrific) place." 'Erai' has two meanings: one is 'rich' as it has plenty of farmland, and the other is 'hardworking' as it involves lots of tiring work. Here, some can't handle farmland, others can take it over. … I'm not much worried about my farmland, though I'm sort of concerned about the financial term. I feel secure as I leave it to someone whom I've known as a local, and begging would be good enough to get by. But I feel guilty if I'm slacking off without farming. Suppose, having 2.7ha of rice paddy, one is idling over weekends without farming, and goes to a hot spring or drives on holiday. The one feels ashamed, don't we? Unless I take at least three positions to serve to the village, I'll be talked about behind my back. That's true! Others are thinking when I'll retire, why not I farm, …that's the 'unseen force.' No one won't help me. I can't make an excuse.*

6.3 Emerging Challenges

Regardless of the limited involvement in the FB program, farmland use and management in the village were in a gradual shift. Largely due to the demographic trends, the following two major challenges were emerging: incorporation of the Farming Union and land-use change. First, along with the aging and shrinking of farming population, farmland was being aggregated: farmland

beyond the capacity of an owner-household for farming was put under the management of either independent or Union-member farms. The former group, particularly the corporate farm, had a larger potential of securing successors to farming for the coming decades. The latter, however, had few active farmers available for the next few decades. Thus, they were under the discussion to collectively secure successors by incorporating the Union, though it was yet to be materialized.

Second, the village faced the mismatch between the villagers' interests and the zoning designations in land-use. The farmland other than the improved large paddies (i.e., unimproved rice paddies, dry fields) was increasingly abandoned. Under this status, some respondents mentioned the inconvenience of the area delineations under the current zoning to accommodate the increasing non-farming population. Others expressed their future interests to divert their farmland to other uses. Consequently, the issue of land-use planning was often discussed, and it was communicated to the municipal hall.

6.3.1 Incorporation of the Farming Union

Farmland in the village (approximately 90ha) was managed largely fifty-fifty in areal terms by two groups: the independent farms (i.e., about 45ha); and the Union-member farms (i.e., about 45ha). Many of the respondents felt that this would not continue due to the aging of farm population, particularly after baby boomers would have to completely retire from farming. Some of the currently active farmers expressed their physical limit to farm as remaining 5-6 years. Only the corporate farm placed reliance on their children to take over responsibility for farming, while most of them were concerned even about managing their own land. Accordingly they

presumed that new arrangements would have to be made. Not knowing motivation or willingness of the corporate farm to further extend its farm scale, some respondents hoped that the corporation would expand its farm, given the farming capacities and trust relationships in the village community. Others were interested to develop the Union into another corporate farm to farm the land in the village.

In addition to the already incorporated farm, interest in developing the Union as another responsible farm (*Ninaite*) largely rested on concerns about to what extent owners would be involved in farm management in the future. Some respondents hinted that an Union-based farm corporate would allow landowners to engage in farming and farmland maintenance more flexibly, compared to the contractual arrangements with the independent corporate farm. Others expected that the owners' entitlement to farmland would be more saliently pronounced in the Union-based farm, rather than the independent corporate farm to which capital is centralized. For instance, a respondent, who was a Union-member farmer, explored the potential of such a Union-based farm (Interview with a farmer on December 13, 2016):

> *The next step after the kin-based tenancy would be tenancy contracts with the one or two large farm(s). Finally all the owners in our village may ask them to farm the land…. Though I didn't want to talk about this, if we leave it up to them, as they are commercial farms, we have to mindlessly follow them. Land rent will depend on the market, and it may be none, following the rice price depreciation. We can't engage in farming even if we want. … Then it'll be the monopoly dominated by them. To my mind, we want to have another farm of the Union where we all gather in our village so that we develop through friendly competition with each other. … If not, as irrigation is automated, we won't know how it'll be actually managed, including the dues. … On another matter, if we small farmers gather into a Union farm, my son, when he reaches retirement, may feel like assisting in farming there, but if not, he can't do so. … Since the government sets the criteria for farmland aggregation, small farmers are ineligible for subsidies and can't afford machines. We have to be large, but we have neither capital nor*

subsidies to do so. …We are in an extremely precarious position… To be eligible, we have to organize ourselves to manage a large area of farmland. … The government supports large farms to promote farmland aggregation… Possibly all the farmland will be aggregated into the largest farm, or halved into the two largest.… I don't know how long I can continue farming, but if there's our group, when I become incapable, my son may want to take over. … Moreover, if there will be a single company in our village, we have to obey whatever it says, including rent, but if there will be two or three farms, we may talk and accommodate each other not to be disadvantaged. …Otherwise, we small owners, can't continue on our own, and may eventually disappear.

As he explored, if the Union is incorporated as a better-qualified farm entity, it will become eligible for several other subsidiary programs, for instance, to be subsidized for machinery purchases. Thus, since its establishment, the Union members occasionally discussed a plan to incorporate. Around 2013 they even reached an agreement on the roles and responsibilities among the members.

However, they were yet to reach a conclusion to finally establish an incorporated Union farm. The members felt a larger risk of losing their individual wellbeing than benefiting from collective farm management given the uncertainties about securing profitability. First, securing profitability would not only require considerable facility investment to take advantage of economy of scale. It would also require commercial farming strategies including products and sales channels and at the same time successors to farm management. Even more than the issue of the fixed amount of subsidies insufficient for facility investment, long-term strategies for farm management were hardly developed. Second, most Union members were not urged to change their farming styles. Many of them were post-retirement farmers engaging in farming not for necessity of living but for health promotion or other purposes. Moreover, if push comes to shove, they could rely on the existing large farms, and not need to take a risk by turning out their own

resources just for economy of scale. In this regard, a respondent, who was an owner-farmer affiliated with the Union, explicated (Interview with a farmer on November 26, 2016):

> *I'm already 80 years old, and may retire in the coming year or so… Then, I would naturally ask others to farm the land, as my son says he can't do. … For crop conversion, I used to be working with a friend of mine for a couple of years, but in response to the call, I've come to join the Union. I thought we could take advantage of cost-saving through collective work, but.. even the work by two of us seems to be more advantageous than the Union in terms of cost reduction. … After all, only barley cropping doesn't work, we have to grow something added-value. … Now we only rely on the government subsidies. I heard barley cropping won't be subsidized any longer in a few years, and so there'll be no benefit in it. … I think we can't do better without the support by the JA, as we have to have facilities for processing and develop sales channels so that the products will be consumed without surplus. … There's no such support from our JA… When the subsidies become unavailable, it can't help but tumble down. … On top of the sales, the cost-saving is foremost so that the shared profit would improve. Though it's a tiny detail, going for lunch together would cost more than having it at home. … small expenses could be accumulated.. My wife says 'How can those of the Union make a profit from barley cropping?'… In the end, people seek for profits that affect our livelihoods. … I guess the thing will be as it is. Timewise it may not easily change, and we are not motivated to make a change… Even if we try and invest money, it would be the most possible case that what remains is only the shared debt.*

6.3.2 Land-use change

While the improved large paddies were managed by the two groups, smaller fields such as unimproved rice paddies and dry fields became sporadically abandoned over the past several years. Few farmers were willing to take responsibility to manage small rice paddies located at the fringes of the residential districts, given the inefficiency of farming them due to the sizes, figures and accessibility. Some post-retirement farmers or elderly females of farm households were farming dry fields lying along the river for their household consumption, but had found few to take over their roles. Despite the aging and decrease in farm population, the village experienced

a slight increase in the total population. In fact, many respondents observed grown children returning to the village after marriage and building their houses near their parents' home. This gives the opportunities to economize their family resources (e.g., childcare, elderly care, housing). As such, some tenancy arrangements were cancelled to allow landowners to build their children's houses on farmland nearby.

Land-use in the village is controlled mainly by three laws: 1) City Planning Act (CPA); 2) Agricultural Land Act (ALA); and 3) Act on Establishment of Agricultural Promotion Regions (EAPR Act). First, the entire area of the village used to be designated as the Controlled Urbanization Area within the City-Planning Area (*Toshi-keikaku kuiki*) based on the CPA until the municipal city planning was revised in August 2013. This designation disallows development actions in principle, and those who intend to build need to secure a building permit, but if they plan to build farm houses and public facilities, they do not need such a permit. Following the revision in 2013 that demolished the CPA area divisions the and designated new divisions based on the municipal ordinance and planning, a part of the village, including the residential districts and their surrounding areas, came to be designated as the Developable Area (*Kaihatsu-kano kuiki*) that allows for development actions, though the rest remained in the controlled area newly called Controlled Development Area (*Kaihatsu-kisei kuiki*).

Second, if the land is farmland, those intended to build on it additionally have to gain a permission for farmland diversion under the ALA. This permission is conditional on the area designations under the EAPR Act. In the region designated by a municipal Agricultural Promotion Regional Plan, farmland diversion within the Agricultural Developing Area (commonly called '*Ao-ji*': Blue Land) cannot be permitted, while that within the rest of the area

(commonly called '*Shiro-ji*': White Land) is permissible if certain conditions are met. In accordance with productivity and surrounding environment of farmland, the land within White Land is classified into the four categories including the Class A, the First Rank, the Second Rank, and the Third Rank: the former two are mostly disapproval except for the development actions to build for agriculture related activities and the latter two are more easily permissible. Thus, farmland on small paddies nearby the residential districts 'outside' the Blue Land can be diverted for other land-uses like housing as long as the diversion maintains or improves the social functioning of the village.

Yet, not only the improved paddies but also the dry fields and some of the small unimproved paddies remained within the Blue Land. Given the potentials of housing and commercial development backed by the favorable access to the transportation, residential and commercial facilities (e.g., an airport, industrial roads, schools, hospitals, shopping facilities), many villagers were seeking a change in the area designation. For instance, the Neighborhood Association consisting of all the villagers including non-farmers, occasionally discussed this issue and conveyed their request for change to the municipal hall. However, the current land-use system under the EAPR Act and the ALA hardly allows for deselection of the Blue Land, resulting in the unchanged status of the designations (Interview with municipal officials on August 20, 2018). On the agricultural decline, the respondent from the corporate farm, who served on both the Agricultural Committee and the City Planning Council at the municipal level, suggested the mismatches between the affordability of productive farming and the institutional demarcation (Interview with a farmer on November 22, 2016):

As discussed at the City Planning Council and the Agricultural Committee, I acknowledge the importance of both city planning and farmland liquidation. ... The common thread is what is supposed to be about land-use. So, I neither agree that we should blindly increase the housing nor that we should preserve all the farmland at any rate. ... Though it's ridiculous to say city planning in the countryside, ... it's still relevant to demographic policy. .. Although our village is neither under the pressures of urbanization nor depopulation, with no strategy, the population will decrease on the general trend. ... I don't think we should force ourselves to continuously grow crops on the land adjacent to houses. We should rather create opportunities for population increase if any. ... The city abolished the zoning of city planning districts. It was criticized as the reciprocal policy against the trend, but I think the state frozen by the zoning might be against the times. Under the zoning, no one except for farm families or their branch families was allowed to build a house in our village. So, it gave a complete loyalty to the principle of eliminating outsiders. ... As I pay land rent to owners, I often confront this issue. The rent for small paddies nearby the residential districts has remarkably decreased. In response, owners surprisingly ask "Is the difference between the improved paddies and the small plots that much?" While honestly I feel like giving me a break to take care of those paddies, I talk to them about the cases in some regions where owners rather pay management fees to tenants. .. but they are uneasy and it takes a while to make me understood. ... On top of the rent, there's the issue of the share of irrigation dues. ... I heard from one official of the Land Improvement District that one owner with the largest farmland in S village has come to bear more than JPY100,000 (approximately USD883) annually. Before the change in the share, I used to bear the annual dues amounting to more than JPY one million (approximately USD8,830).

With little possibility of drastic change in land-use, all the respondents noted benefits from farmland for their living. Those who were practically engaging in farming, expressed their sense of responsibility for managing farmland to secure the inherited family estate and not to make any negative impact on the surroundings as long as they were physically capable. However, some of the respondents who were owners but not engaged in farming showed their interest in converting their farmland into some other land for cost-benefit considerations. Besides the irrigation dues and tax payments, landowners may need to bear the cost and/or make an investment in maintaining the agricultural infrastructure in the course of infrastructural decay.

Having experienced or observed the governmental land acquisition for road construction, which was conducted prior to the land improvement project, they expected to be relieved from responsibility of managing farmland. At the same time, some respondents highlighted the importance of landscape integrity for its athletic benefits as well as land-use efficiency. In this regard, one respondent shared the view that a collective decision may need to be made in the near future to what extent they keep and manage farmland (Interview with a farmer on December 11, 2016):

> *Landowners in the neighboring villages, where apartment houses are built, not seem to care about farmland as the land prices are increasing. ... But as farmland outside the Blue Land is subject to taxation based on the tax rate evaluation similar to the municipal property, I guess the present expenses might be larger there. So, our village would be better off with remaining in the Blue Land for the time being, but when someone comes to buy it, we may like to have it deselected from the current demarcations and sell a bunch of fields to a developer. ... It's like the time when we had the land improvement project. ... Today, the balance of payments for farmland maintenance is relatively easy, thanks to the subsidies which now go to a group of farmers rather than individual farmers. .. Yet, as the paddy fields have been enlarged, repair expenses for unexpected technical troubles became considerable, sometimes amounting to JPY 500,000 or 100,000. Currently, such costs are more or less covered by the subsidies, but I'm worried about how long this kind of programs would continue. In addition, as a few decades have passed since the land improvement, the infrastructure is degrading with age. ... Some of us are thinking that it's a way to do another round of land improvement to further enlarge the paddies. ... But if we do so, the land will remain in the Blue Land for the next few decades. ... In such a case, we have to delineate the area to demarcate sellable land from unsellable land. It sounds greedy, like a real estate agent, but it would be a problem if farmland is bought sporadically. ... We want to decide land-use on our own based on our local consent. ... Otherwise, we let it be sprawled, ... and our local environment will deteriorate. ... There're numerous cases in which some owners get temporarily paid for the land but the local community become teared apart.*

6.4 Conclusion

The adoption of the FB program in the village was limited to three individual tenancy arrangements by which farmland of three retired farmers was lent out to different farms through the FB. Yet, tenancy had preceded before the program introduction, leading to farmland aggregation into independent farms and Union-member ones. This trend resulted from the spontaneous arrangements among the villagers. They negotiated their value perspectives to farmland to ensure security of life and property fundamentally on a kinship basis but also based on their assessment of economic feasibility. To facilitate this negotiation, the Production Association shared relevant information, legitimated the local standards, and coordinated collective actions for complementing farmland management under tenancy. Tenant farming was managed on a household basis, although some of the farms collectively engaged in barley cropping but not in farming rice. As such, there was no local institution to allow for collective tenancy arrangements through the FB, unlike the case in N District. Furthermore, given that existing tenancy arrangements were not directly applicable to the FB program, program adoption was confined to new farm retirements.

Even without program adoption, farmland aggregation had progressed, whereas farmland was managed and maintained without much problem, taking advantage of subsidiary programs. On the one hand, however, the independent farms with a better potential of securing successors became less motivated to enlarge further. On the other, the Union-member farms appeared to fall into a crisis due to a lack of future farm labor. Thus, the villagers were exploring two best possible scenarios: the incorporation of the Farming Union, by which its members will manage both rice farming and crop conversion with flexible involvement of landowners to collectively

manage farmland; and land-use change whereby the village community can take advantage of possible population increase enabled by farmland diversion to make the community economically viable. These two scenarios are not necessarily mutually exclusive. The most expected way might be to develop farm management in the form of communal farming at the Union and at the same time to reduce the burden on the farmers by diverting less cost-effective farmland for other land-uses and limiting farming to superior farmland. To follow either of these scenarios, the community has to overcome multiple barriers, including the land-use controls under the currently institutionalized systems, the agricultural downturn involving the rice price depreciation, the infrastructural decay of agricultural facilities, and different interests and needs for land among villagers.

The FB program might be used for either of these scenarios. In theory, the Union, if incorporated, can take advantage of the FB program to collectively aggregate farmland and thus receive a subsidy for the use of community-based agricultural development. Also, the independent farms can renew the tenancy contracts operationally through the FB program, though they may not be subject to retirement funds that are conditional on a landowner's complete retirement from rice farming upon the adoption. In particular, land improvement in combination with the FB program has been increasingly supported and financed by the government. Thus, the FB program might help an agricultural investment in the village by officially aggregating farmland and renewing and upgrading the agricultural infrastructure. Nevertheless, even more than the governmental capacities for program implementation, it would be the first step to clarify who could be responsible for farmland as an individual property, as a family asset, and as a communal resources, and to what extent.

Chapter 7: Conclusion

The national government introduced the Farmland Bank (FB) program in 2014 as a hopeful fix of a fragmented agricultural structure to generate better economies of scale. To build on but surmount the post-WWII legacy of farmland ownership, it deployed the multi-level governance (MLG) model where the FBs at the prefectural level were designated to intervene in farmland transactions and bring new farmers in tenancy even without the owners' consent. This approach to farmland governance challenged the vested interests, which have been nurtured in the farming families and villages and the farming sector since the post-WWII land reform. The FB program legally and politically repositioned farmland owners in the farmland market. This was a radical turning point in the years since the postwar agrarian reform that has given owners a central role in decision-making on private farmland use.

This dissertation has offered new insights into the process of governing farmland as a way of negotiating different value perspectives. From the angle of farmers (including owners) in a region facing farmland abandonment, it discussed how different actors have interacted, negotiated and contested across formal and informal jurisdictional levels to act on their motivations to use (or not use) and manage (or not manage) farmland. With a focus on rice paddies, a symbolic Japanese agricultural landscape, it illuminated farmland as a 'social field of power' and farmers as active social agents in the process of governing farmland. Taking the FB program as a new MLG model, the study examined how and why the program has emerged, and how and why farmers have responded to it. The following sections present the key findings and draw out theoretical implications and directions for future research. Finally the chapter ends with policy implications for policy-makers and planners.

7.1 Key Findings from the Study

7.1.1 Institutional transformation in the postwar era

The introduction of the FB program followed a decade-long political struggle to revitalize the nation-state. At the state level, the Office of Prime Minister (OPM) along with the business community led the policy-making process to take advantage of farmland as 'productive resources' for national economic recovery. At the same time, the farming sector (i.e., agricultural ministry, farm-tribe lawmakers, and interest groups) resisted radical change so as to preserve farmland as the 'sectoral resources' of the agrarian community. On the one hand, the business-oriented agencies advocated for the exclusion of local actors, particularly farmland owners, from the decision-making process on farmland use for tenancy in an attempt to open an avenue for new entries including business corporations to a competitive tenancy market. On the other, the agrarian agencies upheld local integration and the inclusion of locals to ensure that they not suffer a loss or disadvantage from the new policy, while being urged to revitalize the farming sector. Yet, the political power of these agrarian agencies has been increasingly debilitated through the electoral and administrative reforms since the 1990s, allowing for a program design largely reflecting the wishes of business.

These opposite ends of the state-level agencies, however, shared similar concerns over agricultural land and population. Despite a series of political efforts, farmland abandonment has grown, and the agricultural workforce has increasingly shrunk. Due to the ongoing retirement of the massive cohort of farm population, the agrarian community can no longer maintain its social and economic viability against the intensifying agricultural internationalization. Even prior to the

FB program, the preceding governance models have opened room for interested parties to engage in farming through tenancy. Originating from the first postwar land reform model, the model has shifted from 'owner-oriented' to 'user-driven' not only to improve agricultural productivity but also to ensure that the broader society can continuously benefit from the productive use of farmland. In line with this move, the notion of farmland has changed from private property of a farm family to the commons of the society and, accordingly, the governance approach has altered from the centralized control of individual property to the decentralized, multi-level coordination for collective decisions on farmland use. While these changes reflect external pressures (e.g., trade negotiations, international relations), they have been at the same time driven by internal forces.

The internal forces driving these governance model changes have been forged through the institutional transformation in the agrarian community. Over the postwar years, the agrarian community has drastically changed its constituents and functions around two key institutions: farm families (*ie*) and villages (*mura*). Transforming from the trinity of inheritance (i.e., family property, family business and family name), farm families have been subdivided in terms of work and life across and within generations, and multi-generational families have decreased. In accordance with the increase of non-farming households even with farmland ownership, farm villages have been stratified into farming versus non-farming constituents between which tenancy arrangements have developed.

Both farm families and villages have secured minimum functions to act collectively as a unit, whereas the farming component, either as a family business or a common ground of a village, has been largely marginalized. Farm families have persisted as a life-security unit to

strive for livelihoods of the constituents by adapting to the socio-economic changes. Farm villages have maintained a neighborhood function to collectively deal with externalities of individual households (e.g., infrastructural investment, cultural activities). However, active engagement in farmland use and management has declined in both farm families and villages, where farmland has become no longer the ground of livelihood for the majority. In this context, many of the constituents have lost their connection with farmland and have become increasingly indifferent about whoever might use and manage it.

To accord with these institutional changes, the government has continuously reconfigured the postwar tenancy model. Departing from the land reform model (i.e., the centralized state control of one-parcel-based farmland transactions), it first invented the decentralized planning scheme of 'use-rights' setting in an attempt to leverage the self-governance capacity of farm villages to improve the farming industry (the second model). This model failed to promote farmland aggregation for competitive, large-scale farming. Without specific targets of aggregation, it allowed nominal binding of existing informal tenancy contracts through administrative planning at the municipal level. To more specifically guide collective arrangements for better economy of scale, the government bolstered multi-level features of the model by designating prefectural authorities to coordinate the village-municipal agencies with national policy goals (the third model). With the aim at aggregation by qualified farmers (e.g., certified farmers, village-based farms), this model expanded the governance scope to render agricultural multifunctionality beneficial to a broader society. Yet, the very farmers who can generate multifuntionality have been decreasing in the agrarian community.

Taking the agricultural abandonment as an opportunity, the government initiated the FB program as the latest model to bring new actors in farm management. In the interest of rendering free and open competition in the tenancy market, it gives more power to prefectural authorities to publicly recruit users and redistribute farmland to those who the government considers are economically and technically capable (e.g., business corporations and outside farmers) regardless of owners' wills. By setting the numerical target as an overriding imperative (i.e., 80% aggregation rate by 2023) with a huge amount of budget (for the use of subsidies to owners and local communities, administration, and farmland data management), the state deployed the FBs at the prefectural level rather than the municipal one in an attempt to facilitate tenancy arrangements beyond the grasp of owners and local communities. It also gives prefectural authorities discretionary power to design implementation policy in consideration of regional characters, while allowing them to delegate some of the administrative tasks to municipal agencies so as to mobilize local administrative resources for implementation. With the understanding that private ownership is hardly mutable in the capitalist society, the idea is to separate between ownership and usership so as to tackle the vested interests held by the agrarian community and open the farmland market to outsiders. This model enables the nation-state to exploit farmland as the 'national' resource rather than a 'local' one.

7.1.2 Nexus of farmers' perspectives in governing farmland

Farmers' sense of farmland as 'family property' was a key determinant of the mode and level of the FB program adoption. One community (District N) adopted the FB program in combination with land improvement, by which a majority of landowners entrusted their farmland via the FB

to a reliable local farm, which was simultaneously incorporated as a community-based Agricultural Producers' Cooperative Corporation. This allowed owners to keep their family property alive for a longer period of time by means of infrastructural investment together with stewardship by the local corporation.

The other (Village U) largely remained within the conventional tenancy arrangements where landowners entrusted their farmland directly to several large local farms, either incorporated or family-run. These tenancy arrangements allowed owners to secure their family property under kinship or its extension to the neighborhood. Among the active farmers, owner-farmers insulated their family property through their direct engagement in farming on their land, whereas tenants extended their sense of values in family property to that in the commons of the extended family or the neighborhood to steward the farmland of others.

The study also shows the farmers' perspectives were negotiated and continuously changing. The following part discusses the negotiating value perspectives in each of the two cases. Then, the findings from the two cases are comparatively analyzed in terms of the following key factors affecting farmers' value perspectives to farmland: threats and opportunities to farmland use; generational gaps and connections; and institutional changes.

District N:

In District N, the adoption of the FB program was a collective action. The majority of farmland owners agreed on the initiatives of the FB program combined with land improvement and lent their land to the FB that sublet it mainly to the local cooperative farm. Certainly critical reflections were given to the initiatives: some owners were concerned about whether the cost for

land improvement might be left as ‘debts’ associated with family property to their descendants and others doubted whether the cooperative farm could be competitive enough to avoid generating ‘debts.’ These doubts and suspicions were mostly cleared up through the local dialogues that leveraged the social relations within and beyond the community. The economic incentives for the initiatives eased the anxiety about financial burdens on the owners. The historical development of communal farming demonstrated the managerial capacity of the cooperative farm and boosted it as a trustable subtenant.

More significantly, many owners, particularly those who had lent their farmland to others, were largely indifferent about the initiatives. These attitudes were starkly different from those in the 1960s-1970s when the owners contested, competed and disputed with each other for a better share of farmland from land improvement. In those days, farmland was more socially and economically viable, and the owners were eager to ensure their family property, secure their livelihoods, and maintain the wellbeing of their family members. However, with the loss of social and economic viability, farmland mostly lost its life-security function as family property. Although owners were still aware of farmland as family property, their present concerns were over whether it would bring ‘debts’ or not.

In place of farming, owners increasingly relied on other jobs as sources of income and, through receding from farming and farmland, have changed their connection with and their sense of values in farmland. Some who disengaged from farming but received ‘rice’ as land rent, found a connection with their farmland through ‘rice’ and sticked to its specificity. Those who still engaged in farming but with the increased responsibility for other work identified ‘unnecessary’ fatigue and toil with farmland through their weekend labor, but sometimes were cheered up with

non-monetary rewards (e.g., enjoying a few beers after farm working!). Among the full-time farmers, some who relied economically on farming, saw their future in farmland, while occasionally projecting their uncertainty and the instability of agriculture onto farmland. Those who received pensions found their creativity and ingenuity on farmland but often with a mixture of anxiety over the absence of heirs and their own aging. Together with changes in their economic, technical and physical capacity, their perspectives were changing simultaneously with a mixture of different feelings through their experiences and contacts with farmland.

Despite the progress in farm retirement that had been already underway, the adoption of the FB program in combination with land improvement made a radical change in the relationships between farmers and farmland. The initiatives urged many of the remaining active farmers to change their lifestyles, belongings and/or social relations, and thereby to alter their own subjectivities. Some farmers of family-run farms confronted a decision about whether to continue their independent farm management in the very different environment or to be part of the cooperative farm by giving up their farming styles. Many of them opted for inclusion in the cooperative farm but felt a loss of hands-on feeling about farmland or puzzled over the lifestyle changes, while having a sense of justice for the sake of the community. It was not an easy decision for those who had a sense of worthiness in their own farming, as it was not only to gain monetary returns but also to stretch their originality and ingenuity, support their family members and kin, and demonstrate ‘a way of life’ in their own manner. Furthermore, the enlargement and leveling of paddies erased previous boundaries and deaden the specific identification of original paddies. This physical transformation inhibited owners from maintaining the same connection with their farmland, either through having a particular ‘rice’ or farming on specific land.

The changes in material and physical connections between farmers and farmland not only affected the present but rippled over time. Many farmland owners, most over the age of 60, subjectivized themselves as a family head of a farm household through their experiences in being raised by their parents who engaged in farming, helping their parents with miscellaneous farming practices, and playing with their friends on the farm roads. Through being part of active gatherings, cultural activities, and community lives rooted in farming, they developed their collective subjectivities as a member of a farming community. Even if they no longer engaged in farming, these experiences and memories nurtured their perspectives to farmland as family property to be handed down to the next generation and bolstered the sense of commitment to their farm villages. As such, despite adversity in agriculture, some active farmers remained in charge of farming either through being part of the cooperative farm or by continuing independent farming.

Younger generations whose parents had already disengaged from farming or engaged in mechanized farming on a part-time basis had much less physical, material, and cognitive connections with farmland. Without such connections, their attention to farming and farmland was marginalized, and their individual and collective subjectivities were very different from those of their parents' generation. They had other ways of pursuing their private and professional lives. Less of a constituent of a farm family and a farm village, they were far less preoccupied with a sense of responsibility for handing down farmland to the next generation, and were less motivated to sustain a farming community. This is the concern inferred by some informants that the 'complete' entrustment of farming to others would discourage owners to keep their farming community alive. In fact, from my follow-up fieldwork in August 2018 I found that the villagers'

participation in farmland management activities declined while one of the villages ceased to hold a long-standing traditional festival.

Village U:

In Village U, tenancy arrangements had already progressed on a household basis prior to the FB program, leading to farmland aggregation to a handful of local large farms. Given the potential of only marginal increase in farmland aggregation, the FB program was not actively introduced by the government authorities in consideration of minimal subsidiary opportunities. Even in a few cases of program adoption, the conventional arrangements persisted except for the paper-based arrangements via the FB. Hence, tenancy primarily went through direct negotiations between owners and tenants and, if not successful, leveraged neighborhood communications or the network of the village-based organizations (e.g., Farming Union) for agreeable arrangements.

With the assumption that families were responsible for care of their property, the kernel of negotiations was the capacity of tenants to 'decently' steward farmland. Given the understanding that farmland could not be very profitable, owners were not demanding 'profitable' returns, but to supplement their household income. With the reference prices of land rent standardized in a village, there was generally no competition among tenants in terms of rent. Owners thus relied on kinship, friendship or acquaintance as long as they could have 'decent' rent to cover the cost of holding the farmland.

However, the perspectives on farmland were diverging between owners and tenants, and this gap occasionally elicited conflicts between them. Many of the owners who had disengaged

from farming and submerged themselves in suburban lives often failed to comprehend how the 'decent' level of stewardship came about with 'decent' rent. Consequently some of them saw the land rent reduction as well as the increase in the share of irrigation dues even unfair. Having subjectivized themselves as 'right holders' of ownership, they were skeptical about whether their rights to farmland might be unduly exercised. In such situations, the village-based organization (i.e., Production Association) mediated (potential) conflicts by rendering the standardized rents as a reference to show that landowners were at least 'equally' treated for the rent payment and the cost sharing.

Furthermore, their ownership rights could be exercised only within the legal frameworks, and they could not freely alter land-use or sell it. Yet, having experienced the exceptional case in which a portion of farmland was sold for highway construction on the occasion of land improvement in the 1990s, farmland conversion was not an unthinkable future option for many owners. In the suburban context where land demand was noticeable, most of the owners subjectivized themselves as 'land' owners but not necessarily 'farmland' owners.

As constituents of the farming village, tenant farmers had no authority over owners to enlarge and/or level their paddies autonomously to be more efficient. Rather they accommodated owners' requests for tenancy to accord with their capacity and interest. For several large farmers, paddies were still contested ground, though their eagerness was much less than several decades ago and also varied across different farmers particularly depending on their economic reliance on farming. Albeit passively, they negotiated in consideration of to what extent they could extend their capacity to tenancy while securing their livelihoods: some took into account the physical potentials of how far they could travel to manage the entire farmland and others accepted any

requests to expand future opportunities of tenancy. They had their own criteria of tenancy arrangements to maintain their wellbeing and adapt their lifestyles to change in tenancy.

The point of contestation was not the land rent but the social relations in the village. The social relations were sometimes delicate, not necessarily dependent on technical or economical capacity of farming, but involved all the drama of village life. One case of program adoption suggests that a large farmer retired not merely from rice farming but from the stressful, tiring contestation while he still had his physical and technical strength.

On this competing ground, the incorporation of the Farming Union was not an easy task, though it was one way to take advantage of the FB funding opportunities. Despite the existence of the Union, it was fragmented across family-owned farms, each of which developed their own ways of farming and living that still essentially built on rice farming. Having extended the heritage to their own invention and innovation, large farmers as tenants as well as owners saw farmland as 'a part of their lives,' through subjectivizing themselves as heads of farm families. Thus, their perspectives on rice paddies were more on a family basis than community-based and such perspectives hindered their initiative to incorporate the Union for collective rice farming.

Their subjections built on their experiences and observations of the daily struggles of previous generations in their childhoods and younger adulthoods. It was certainly impossible to completely share the same experiences across generations, and so was it to see themselves and farmland in the same way. This gap was the critical challenge that many elderly farmers were confronting. To fill the gap, only a few were able to hand over farming to their heirs and thereby to directly communicate and share a vision of farm management within a family. Many others in the absence of successors were already hopeless to close a gap within a family, but hoped that

farmland stewardship could be collectively passed down within the village. Thus, many were aware of the potential of the Union to fill the inter-generational gap. Yet, besides technical barriers (e.g., managerial expertise, accounting skills), they also recognized the intra-generational gap in perspectives.

Threats and opportunities to farmland use:

Both communities experienced decreased 'profitability' but faced different threats to the productive use of farmland: farmland abandonment in District N, and farmland conversion and partial abandonment in Village U. Now that the life-security function of farmland has lessened, the main concern of land owners was over whether their holdings could suffer 'deficits.' Owners agreed on tenancy arrangements as long as their concerns over any deficits arising from the arrangements were dispelled. If they found the costs of keeping it under tenancy exceeded the benefits, farmland often ceased its agricultural production function.

In District N, farmland abandonment was encroaching on several villages, and the villagers assumed that more farmland would be abandoned without land improvement. Particularly in the three villages that were excluded from program adoption, some owners appeared to abandon their farmland with inferior conditions (e.g., terraced paddies on steep slopes) given few tenants willing to steward such farmland. In Village U where more potential existed, some owners expressed their interests in diverting farmland for non-agricultural purposes. In fact, farmland conversion for residential use progressed in certain area where land-use changes were allowed. At the same time, inferior farmland where land-use changes were disallowed was increasingly abandoned. If land-use changes are appropriately managed, either

farmland abandonment or conversion could turn into opportunities (e.g., revegetation, urbanization).

Generational gaps and connections:

Farmland owners performed their assessments not merely in economic terms. Their analyses extended to their individual and collective relations to farmland and other people within and across generations. Due to the increased disengagement from farming, many in younger generations subjectivized themselves as a constituent of a non-farming family and a professional community rather than a farming village and, as such, marginalized their relations to farmland.

Within the same generation, the gap in perspectives was widening between farming and non-farming households: farming ones saw farmland still as part of their lives to supplement their household incomes and diets and spend time, energies and other resources for farming, whereas non-farming ones found themselves apart from farmland as it was mostly absent in their daily lives. The former's sense of farmland appeared to extend to non-monetary values (e.g., feeling of accomplishment, creativity and originality), but the latter's sense was often reduced to monetary ones.

Between the active farmers, the two communities show different modes of intra-generational connections. In District N, collective subjectivities had evolved in rice farming across different farm households through developing the community-based farming organization to steward paddies across several villages. Those affiliated with the organization nurtured their sense of farmland as the commons of the community. This sense of belonging and valuing

farmland helped to adopt the FB program, as it fueled the local key figures' commitment to the community to take a lead in the initiatives.

In Village U, collective subjectivities in rice farming remained largely with individual farm households, while occasionally extending to kinship and neighborhood. Despite their affiliation with the Farming Union, the substantial fragmentation disallowed the nurturing of the sense of farmland as the communal commons. The stronger sense of values in farmland as family property induced either contestation or insulation of tenancy arrangements, rather than cooperation or dialogue, hindering the incorporation of the Union and the collective adoption of the FB program.

Institutional changes:

Both communities were undergoing institutional transformations in governing farmland. As one of the key social institutions, the farming community has changed in its territorial scope, but differently between the two communities. In District N, the scope of a farming community expanded from each village to the agglomeration of multiple villages to extensively manage paddies under tenancy arrangements. Through communal farming across these villages, farmers' belongings and social relations were drastically changing. In addition, land improvement fueled the change in the farmers' material and cognitive relations to farmland by reshaping the boundaries and surfaces of paddies. Village U remained mostly unchanged within one village, although rice farming on an individual farm basis had transcended the village boundary to include a neighboring village. As such, farmers' communal perspectives as well as their sense of belonging remained somewhat insulated.

As another pivotal social institution, the farm family has transformed over generations similarly in the two cases. Many farm families became non-farming ones, whereby the connections between family members and farmland were weakened. Instead of invigorating the farming component within a family, they have increasingly outsourced it to others through tenancy arrangements. The community-based farming organizations stretched the institutional capacity of farming communities to complement that of farm families in managing farmland. In this way, the interlocking transitions of farm families and villages have taken place along with the progress in tenancy arrangements, wherein many owners have lost their intimate relations to farmland.

These interlocking transitions of social institutions have progressed in tandem with (and even driven) the shift of the MLG model in governing farmland. Historically farmers have collectively resisted or cooperated on agricultural policy to secure their livelihood units. A prime example of resistance is the collective bargaining of farmers in Village U against the national policy of depressing the rice price in the early 1960s. That of cooperation is the reorganization of community activities in the 1990s under the slogan "ten villages as one" in District N by enhancing the collaborative working relationships with the municipal and prefectural authorities. In either of these cases, farmers internalized, expressed and acted on their collective subjectivity as a constituent of a farming community to pursue their needs and interests. However, the increased stratification and fragmentation of the social institutions led to the latest MLG model to allow for new entries into their communities, while making it difficult to motivate farmers to forge collective subjectivity and exercise collective action on farmland management.

7.1.3 Effects of the FB program

The FB program has far less attained its ambitious goal of farmland aggregation in spite of the generous budgetary support particularly in the form of subsidies to owners and local communities. The overriding imperative of program implementation is to achieve the Key Performance Index (KPI): 80% share of farmland to be used by 'responsible farmers' (i.e., farmland aggregation rate) by 2023. The farmland aggregation rate increased from 48.7% in 2013 (i.e., the baseline) to 55.2% in 2018, but failed to keep up with the 'annual target' (i.e., an annual increase in aggregation by 150 thousand ha) until 2018. To monitor the progress and thereby facilitate implementation, the national government has measured the prefectural performance by means of the 'FB's contribution ratio' and ranked the prefectures relative to this ratio to ensure public disclosure of performance and allocate budget accordingly to each prefecture.

As the cornerstone of agricultural 'structural' policy, the program primarily aims to resolve the fragmented land holdings and promote large-scale farming. Thus, the aggregation rate could be reasonable in general as a measurement of program performance rather than some other measures of improvement in agricultural production (e.g., volume and values of agricultural produce) which marketing strategies and agricultural inputs other than 'land' would also greatly affect. In particular, rice farming could take better advantage of the program to improve productivity due to its land-extensive farming than labor-intensive one. Yet, the calculation of the 'FB's contribution ratio' disregards to what extent the program implementation contributes to physical farmland consolidation, although consolidation is part of the structural policy goal. Also, while there are several other means to farmland aggregation (e.g., use-rights

setting under the PIAMF Act without subsidiary support), the calculation takes no account of farmland aggregation through other means than FBs. In effect, though the ranking-based budgeting instilled competitive spirits among some prefectures to raise performance, the FBs' contribution to 'the annual target' continued to be less than 20%, while that to the actual new aggregation remained below half.

By design, the program gives more discretionary power to prefectural authorities to take advantage of regional resources and broaden the tenancy market. At the same time, it allows them to mobilize local resources by delegating on-the-ground work to municipal agencies for program implementation. While diffusing the state authority to allow for some flexibility in governing farmland at the prefectural and municipal levels, with the new legislation it maintains the role of the state in guiding and supervising the prefectural authorities through monitoring, evaluation and budget allocation. The tenet of this latest MLG model is the separation between ownership and usership with an aim to create a fluid tenancy market and expedite farmland aggregation so as to secure farmland as 'national' and 'productive' resources.

Nevertheless, the limited attainment suggests that farmers have not been so easily disconnected from farmland but rather systematically entangled with it. Being aware of the risks arising from forcefully disconnecting farmland from farmers, prefectural authorities rather modestly approached the FB program to take care of farmland as 'regional resources.' For instance, the FBs as prefectural agencies would owe 'debts' if they leased farmland from owners but failed to sublet it to capable farmers. Thus, they tended to rely on ready-made tenancy arrangements at the local level rather than surrendering to economic fluidity. Certainly, the new MLG model also brought innovations in tenancy arrangements. The prefectural government in

Ishikawa developed a regional fund to support new entries in the unfavorable areas for regional revitalization, while it organized three-level working mechanism (i.e., prefectural, regional and municipal) to implement the program within the administrative framework. Yet, the nationally standardized evaluation system associated with the ranking-based budgeting discouraged the unique strategy of the prefecture specific to the regional context.

The municipal agencies (e.g., municipal governments, agricultural cooperatives) were also cautious about handling farmland as 'local resources' since most farmers were their jurisdictional constituents and legitimated their authority. Thus, they primarily respected the locals' wills in coordinating tenancy arrangements, while tackling the administrative complexity for program implementation. A prime example is that few penalties have been imposed in practice on owners who keep farmland fallow, although the agricultural committees at the municipal level have been given more responsibilities and authorities to regularly check up and administer farmland. Another example is that the Community Agricultural Master Plan (CAMP) has ensured merely subsidiary opportunities accessible to farmers, although the municipal governments have been given increased discretional power to facilitate local dialogues.

The current governance outcome is the modality where farmers as ownership right holders are still sanctified to make an autonomous decision of farmland use with a limited penalty for abandonment, rather than being forced to renounce their rights for the exercise of complete discretionary power of prefectural authorities. Tenancy arrangements have essentially built on local social relations. Where locally-based farmers were still available, a handful of large farmers have stewarded farmland through tenancy within a geographical territory that increasingly extended across several farming villages. Only when a lack of locally available

farmers allowed for new entries, did the FB program call for outside farmers. As such, the FB program complemented local tenancy arrangements rather than promoted large capitalist farms to enter into the tenancy market. Overall, despite a massive budget injection, the FB program has only marginally facilitated farmland aggregation.

Taking advantage of certain local initiatives, however, the FB program rendered exponential progress in both farmland aggregation and consolidation particularly in combination with land improvement in some areas like in District N. Communal farming has been politically and socially promoted to allow for collective tenancy arrangements, and if incorporated, they were further supported with generous subsidies to materialize consolidation and aggregation together, wherein the FB program intervened to ensure long-term tenancy contracts. This policy intervention facilitated capital investments in large-scale farm management. By setting economic incentives and invoking farmers' commitment to sound farmland management, it has the potential to sustain farming and farmland management for a longer term.

Nevertheless, this intervention may not guarantee sustainable agriculture and may even exacerbate farmland abandonment or conversion. Making communal farming profitable has been a long-standing riddle, as it involves transaction costs such as additional efforts in coordination, accountability and consultation. Furthermore, scale expansion of farm management (even with the initial subsidiary support) has been looming over farm managers' heads in the face of market realities. Large-scale farming, particularly in hilly and mountainous regions, was new to many, including the governmental and professional agencies, and involved risk associated with various economic, environmental and political uncertainties.

More importantly, the intervention pushed more people away from farmland, and this disconnection hindered the nurturing of collective actions and may facilitate land-use changes other than farming. Rice farming has historically taken advantage of free or cheap local labor on a voluntary basis for collective farmland maintenance, whereas such activities have been supported through economic incentives from the governmental subsidies in recent years. Yet, the FB program particularly in combination with land improvement utterly disconnected farmland owners from paddies and discouraged them to engage in collective land management activities.

In the land abandonment context, many people appeared to remain in farming communities to receive rather non-economic benefits from farmland, which have been embodied through their lived experiences in actively interacting with the paddies there. Being disconnected from paddies, even those who have remained may move out to seek better livelihood opportunities. Even with improved efficiency of farming, paddies (in connection with irrigation and other infrastructural facilities) cannot be viably managed without sufficient population.

7.2 Theoretical Implications and Future Research

With a focus on farmers as right holders, the dissertation has unpacked the compounding changes in the bundles of rights to farmland made through farmers' interactions with other right holders across different governance levels. With a focus on farmers as social agents, it delved into institutional changes across the levels driven by both internal and external forces around social agents involved with resource use and abandonment. With a focus on farmers' perspectives, it illuminated the dynamics of their sense of values within and across generations, which were nurtured through their tangible and intangible connections with farmland. All these changes and

moves had enormous significance for the political outcomes of tenancy arrangements. The following text discusses the theoretical implications on these three fronts: rights, institutions, and value perspectives.

Negotiating rights to farmland in MLG

Socio-institutional approaches to property rights treat 'land' as "a socially structured space-time continuum," and direct our attention to a 'bundle of rights' in which interested social actors bargain, redistribute and reconstitute different kinds of property rights (Bastiaensen and Merlet 2012; Alexander 2012). In line with these approaches, the dissertation has shown that farmland tenancy was negotiated among the interacting social actors not just in economic terms but also in the social, political, practical, discursive and emotional senses. Moreover, the regime of tenancy arrangements has enormously changed through their negotiation in governing farmland. The negotiation on tenancy was not bilateral — neither between owners and tenants, nor between owners and the state — but multilateral, involving those who had different roles, responsibilities and interests in holding, using and managing farmland across the levels and scales (e.g., managers, intermediaries, regulators and beneficiaries). In this regard, the property regime of farmland in Japan has transformed the role of farmland from 'family property' to the 'commons.'

Beginning with state intervention in leveling the relationship between landlords and peasants, the postwar property regime transformed the state control of ownership of an individual plot to the multi-level coordination of a collective set of tenancy arrangements. With the assumption that ownership of farmland gives power to farmers to secure their livelihoods, the earlier interventions aimed to ensure the welfare of farm households by connoting farmland as

‘family property.’ Along with the overall decline in the role of farmland in shaping wellbeing of farm households, however, the later interventions appeared to mobilize not only farmers but also other social actors to engage in farmland use and management through granting them different kinds of rights (e.g., management rights for prefectural and municipal authorities, use rights for general corporations) so that the benefits from farmland could be sustained and more broadly shared. Importantly, the transformation of the farmland property regime exhibits the compounding changes in the bundle of rights to farmland.

Yet, the state’s assumption did not always accord with farmers’ practices and perspectives as well as those of other actors who increasingly joined the property regime. Despite its decline in fulfilling the immediate, substantive needs of farm households, the role of farmland extends to multiple dimensions of human wellbeing (Díaz et al. 2015). Thus views on tenure, security and conservation of farmland remain contested among farmers in tenancy, while certain features of tenancy (e.g., temporality, inflexibility) sometimes inhibit farmers from entering into tenancy or from committing themselves to long-term investments and land conservation (Rotz, Fraser, and Martin 2019; Varble, Secchi, and Druschke 2016).

The contestation of tenancy arrangements was primarily based on social relations involving owners and tenants (e.g., kinship, friendship, neighborliness), which were hardly replaced by economic incentives from the government. On the premise that tenancy guarantees family property through continuous social relations, the owners allowed for rendering their family property available for the local commons. As such, the FB program as the latest model of MLG, has been reshaped through the negotiations between these social actors associated with the bundle of rights, where farmers have been actively interacting as alienation-right holders.

Negotiating forces for institutional changes in MLG

Drawing on MLG as an analytical framework, the dissertation elucidated the interactions of institutional actors across different levels in bringing about change in the MLG model. Drawing on the Type 1 and 2 distinctions of MLG, the study highlighted the challenges that the society has faced in the process of transition of the MLG model. The state has increasingly dispersed its authority across multiple levels to facilitate cross-level tenancy arrangements for better economy of scale. It does so mostly by leveraging 'durable' jurisdictional ladders (i.e., national, prefectural, and municipal authorities). At the same time, it has given increased discretionary power to lower-level authorities to tailor the program design in accordance with regional diversity and take advantage of local and regional resources for program implementation. In an attempt to coordinate different needs and interests in facilitating tenancy arrangements, it has provided templates, guidelines, monitoring schemes, and evaluation systems under the ultimate state supervision. In particular, the numerical target of farmland aggregation (i.e., Key Performance Index) is the very key imperative of the FB program, leading to the 'zero-sum' game to redistribute farmland as 'fixed' resources.

Nevertheless, the focus on the socially and customarily developed institutions illuminated the potential (or threat) of positive-sum change in governing farmland as more adaptable or malleable resources. The study explicated the transformations of the two key institutions in governing farmland: farm families and farm villages. Farm families have aged and shrunk in general with the shift from multi-generational to single-generational ones, but continued to serve as a life-security unit where the family members changed their livelihoods and lifestyles

increasingly on an individual basis. Farm villages have been also graying and depopulating with the greater stratification of constituents, but have sustained certain communal activities to collectively secure the livelihoods of members. Along with these transformations, some functions relevant to farming and farmland in the both institutions (e.g. family-based farming, village-based collective land maintenance activities) have been marginalized.

These changes were driven by both internal and external forces that emerged through the interactions between the institutional actors across different levels in the processes of governing farmland. The external forces (e.g., agricultural market, administrative reforms) triggered the changes in institutional behavior by widening or narrowing the range of available options for individual and collective actions of the constituents (e.g., job and educational opportunities). But, internal forces substantially changed the inner nature of these institutions, having long-term political effects on farmland governance.

As a significant inner force, the critical driver of the institutional changes appeared to be farmers' motivations to secure their livelihoods. Farm families adapted to accommodate the livelihood needs of their members, whereas farm villages also metamorphosed to complement the life-security functions of farm families through mediating between internal and external agents (e.g., households, administrative agencies). The life-security functions spanned all the dimensions of human wellbeing, not reducing to economic terms but reaching diverse aspects of a way of life. Particularly in the context in which the farmland's economic contributions to livelihoods have been largely declining, the remaining farmers struggled to find different kinds of values that could contribute to their livelihoods. Thus, they were increasingly attentive to the spiritual, aesthetic, social and constitutional aspects of farmland. Farmers have served as active

social agents to change the characters and structures of these institutions and thereby institutional arrangements and relationships.

At the same time, new forms of farm families and villages have been invented as a result of the negotiations between different social agents. A prime example of a new farm family was the independently incorporated farm management entities (e.g., private companies), whereas that of farm villages was village-based farming organizations. Both of them were politically promoted and economically supported with governmental subsidies, but also built on their own initiatives. Capital investment gave power to these new organizations to overcome the adverse economic conditions. At the same time, the collective subjectivities as a corporation or community united different groups of people to generate economies of scale. On the trends of farmland abandonment, however, a key resource was people to engage in farming and to maintain, revive and nurture the social, economic and environmental viability of farmland. In either form of organizations, farmers' sense of values in farmland was a crucial motivator.

Negotiating value perspectives to farmland in MLG

Along with recent scholars who have advocated for the importance of 'relational values' in resource governance (e.g., Díaz et al. 2015; Chan, Satterfield, and Goldstein 2012), the dissertation demonstrated that farmers' value perspectives have been forged and reshaped through their tangible and intangible relations to farmland, and thereby affected their actions in the dynamic processes of governing farmland. In particular, through their experiences in certain times and spaces — including not only material and practical experiences but also imagined and discursive experiences — their subjectivities have been relationally embodied. In this

connection, besides the challenges arising from the cognitive gaps between different social agents across different jurisdictional levels, my study elucidated the challenges accruing from such gaps among farmers in governing farmland. While the study showed contrasting perspectives between active farmers and non-farming landowners, it also illustrated conflicting views on farmland among the active farmers across different generations. To expand the idea of 'scale challenges' (Cash et al. 2006), the 'generation' is one of the key dimensions of scale that challenge the formation and operation of MLG.

Among active farmers in a farming community, different generations have largely shared different kinds of livelihood pathways in a certain span of time and space, leading to distinctive worldviews across generations. For instance, the study shows that elder generations appeared to have more favorable views on village-based social activities hinged on agrarian lifestyles, whereas younger ones tended less to appreciate the same activities. In addition to these differences, resources for farming also differed across different generations. On the one hand, younger generations had less time available to engage in farming due to their commitment to other occupational and social activities, while they were more adaptable to new technologies. On the other, elder generations appeared to be less physically and technically adaptable to radical changes in farming technologies despite having better place-based knowledge, while they tended to have more time-wise commitment but often concern about the years remaining for their engagement given their physical capacity. These resource asymmetries did not lead to noticeable political subordination within a community, but sometimes elicited silent tensions between the generations.

The gaps between the elder and younger generations may extend to those between the current and future generations. Even within a family or a community where different generations shared space, time and living, handing down farmland and farming has been an enormous challenge. Having experienced both hardship and enjoyment, the current generations have had ambivalent feelings. Thus, they hesitated to compel their children or younger generations to commit to farmland as much as they cared for the wellbeing of younger and future generations, including freedom of choice. The current generations do not vocally demand the next generation to succeed to farming (though they do wish sometimes secretly without saying to their heirs), given their familial or communal care of younger ones based on their own ambivalent and uncertain feelings about farming. In such a way, the gaps in farmers' perspectives were increasingly widening over generations in the resource abandonment context.

In sum, the study demonstrates that the property regime of farmland has transformed incrementally through the interactions among multilateral institutional actors across levels and scales, wherein the property values of farmland have been continuously negotiated as the values perceived distinctively in accordance with their subject positions associated with social relations, politics and material domains specific to a certain time and space. Importantly, it highlights that farmers' subjectivities have been changing and often ambivalent, contradictory and uncertain as having been relationally embodied through their material and discursive experiences, but enormously contributed to forging their value perspectives on farmland and thereby their motivations for their individual and collective actions to secure and improve their wellbeing by means of farmland. Such motivations have partially but crucially driven the change in nature and

structure of social institutions (i.e., farm families and villages) and then finally overall institutional arrangements and relationships in governing farmland.

In the process of negotiations, cognitive gaps between different institutional actors across times and spaces — which have been also affected by resource asymmetries — have elicited or amplified tensions and led to the change in the property regime. At the same time, exogenous forces (e.g., market, state) have widened or narrowed the range of available options for institutional actors to individually and collectively take. As such, farmers have been actively and continuously reshaping the governance model by resisting or conforming to the external forces as well as their own contradiction and ambivalence, whereas they have transformed their institutional behavior hinging on their subjectivities and value perspectives.

Limitations and future directions of research

To expand the knowledge of value perspectives in the processes of MLG, I would extend this study mainly in three fronts: case selection, sampling, and approaches to value analyses. First, a broader set of cases on the FB program implementation would allow for elaborating the processes of governing farmland in association with different performance levels of implementation. The dissertation focuses on Ishikawa Prefecture where performance was very high. The prefectural government's commitment to program implementation boosted its performance. The regional features (e.g., the rivalry across the neighboring prefectures, the larger share of land-extensive farming) also appeared to affect the performance level. Yet, inclusion of lower performers and those in different regions would allow for exploring why or why not the

program was implemented well and how value perspectives have interacted in the processes of implementation at different levels of performance.

Also, this study focused on the two farming communities in which the level of program adoption was contrasting. This focus offered insights on farmland that was treated as 'family property' or otherwise as a 'communal asset' (whereby a family property was stewarded communally) by differently adopting the program. In both communities, tenancy arrangements were made between owners and local farmers either directly or indirectly via the FB. A few communities, however, adopted the FB program by which owners lent their land to outside farmers via the FB, including those newly entered from other sectors. My supplementary interviews found that outsiders made considerable efforts to ensure good social relations in the absence of locally available tenants, sometimes with the help of coordination by municipal agencies. Nevertheless, detail examinations of the cases where outsiders joined in tenancy would further explore barriers and opportunities of new entries and account for impacts of outsider involvement in tenancy on value perspectives to farmland and governance.

Second, the expansion of sample to include more diverse constituents of a family and a village would allow for comparison or possibly stylization of value perspectives in accordance with more varied population profiles. My study skewed towards family heads of farm households, many of whom were still active in farming. It included a few females, younger farmers and family heads of non-farming households, but the population of them was limited. Although family heads were farmland owners in most households and their decisions were primarily important for farmland use, they also interacted with other family members to decide and act on their decisions. My study also pointed to the changes in farm families as a key social

institution in governing farmland. Thus, intra-family dynamics and diversities of value perspectives would be interesting to explore. Furthermore, absentee landowners were excluded, although some interviewees informed me on their reactions to the FB program. These interviews suggested that the absentees' perspectives were very different from those residing in the local communities, and such differences sometimes adversely affected the existing tenancy arrangements or the communal decision-making.

Third, this study analyzed farmers' multiple value perspectives to farmland in connection with their involvement in tenancy arrangements. Yet, it limitedly accounted for relative importance of these values they placed on farmland as well as the evolving, embodying processes of their value perspectives. An extended comparison of relative values that farmers attach to farmland would deepen the understanding of any trade-offs and synergies. Such a comparative analysis would be beneficial to draw out implications for policy impacts on farmers' wellbeing.

Also, a life-course analysis of several farmers would further assess the dynamic connections between the historical and socio-economic contexts and individual lives, taking into account the socio-historical heterogeneity and gendered roles in farmland governance. My analysis of postwar institutional transformations shows the interlocking transitions of farm families and villages along with the changes in the MLG model. The study also suggests that farmers' value perspectives have been embodied and evolving through their discursive and practical struggles and negotiations. The life-course analysis would elaborate on interactive processes of subjectivization in connection with their sense of values by highlighting turning

points in their livelihood pathways. This would more exactly account for generational gaps in value perspectives to farmland.

7.3 Policy Implications

The study suggests several plausible scenarios and ways forward in the two distinctive regional contexts. In the hilly and mountainous region, farmland abandonment is a major threat to the local communities, which may possibly turn into opportunities. In the face of plausible progress in abandonment, some village communities took initiatives of land improvement to consolidate and aggregate farmland with capital investment by taking advantage of governmental subsidies. The present major challenge for the locals is to nurture entrepreneurship in the enlarged farm management by enhancing local resources and/or bringing innovations. Given the limited availability of occupational and educational opportunities in the vicinity, however, disengagement of a majority of local population from farming might make it difficult to retrieve their interest in sustaining and augmenting local agrarian resources (e.g., local labor, cultural heritage).

Other communities (i.e., the villages excluded from program adoption) did not act to reverse the trend and may experience further farmland abandonment if no drastic change occurs. One challenge is environmental externalities that would extend to surrounding communities and beyond. For instance, the habitat of wild boars was expanding and more frequently causing damages on farming in the entire district. Another challenge is the increase in legal and administrative complexity to handle the land entitlements. In some extreme cases (e.g., forest land), no one knows who owns which plots, and in such areas the land could be exploited for

illegal or illicit activities (e.g., illegal damping). One way forward is to facilitate 'active' land-use planning on abandoned farmland, where land uses other than farming (including rewilding and revegetation) could be also explored. Yet, on top of legislative impediments, bringing together those interested and entitled to abandoned farmland would be a considerable challenge.

In the suburban, flatland region, farmland conversion is another threat or potential in addition to abandonment. Building on local social relations, superior farmland has been productively used and managed through tenancy arrangements, whereas inferior farmland has been increasingly abandoned. One of the key blockages is land-use regulations that control land conversion under the zoning system. One way forward is to allow for land-use change in accordance with local needs through the change in zoning. Besides the political and administrative challenges, however, a long-term planning of land-use with local consent is a must: the nature of farmland is hard to undo for a short period of time once it is changed.

Another way to the productive use of farmland is through improving farmland and/or expanding the management capacities of farmers. In this regard, the FB program may support local initiatives, such as land improvement and incorporation of village-based farming, through long-term tenancy contracts and economic incentives. Yet, it is again critical to determine who would be in charge of farming, to what extent farmland would be preserved for farming, and how to share the benefits. The village community may serve as a self-organized unit to facilitate local dialogues for a collective decision on land-use despite the individual entitlement to farmland, but the community is increasingly stratified and diversified and may make it difficult to attain local consent. The third way might be status quo in land-use, but the ongoing changes around farmland (e.g., demographic changes, infrastructural decays) have urged the locals to take action.

The primary goal of the FB program as a keystone to the structural policy is to remedy the fragmented farmland holdings for better productivity, whereas other policies are geared to preservation and enhancement of different aspects of agricultural multufunctionality (e.g., environmentally-friendly farming, value addition to agricultural produce through processing and distribution). Thus, the program promotes farmland aggregation and consolidation and its progress is measured by the farmland aggregation rate albeit not accounting for consolidation in this measurement. Yet, on the trends of abandonment, the accurate status of farmland — including ownership, vegetation and land-use — has been hardly updated, while it is socially and politically arguable how much farmland should be farmed to secure adequate quantity and quality of food for sustaining the entire population in the country. Thus, at least to clarify the baseline, the government has allocated considerable amount of budget to survey, update and manage farmland data in addition to economic incentives to owners (and local farming communities) and administration for program implementation.

To reverse the trends of agricultural abandonment, however, it is essential to reconnect between people and farmland as "a socially structured space-time continuum." Current agricultural policy has set the goals in volume terms nationally, which are broken down into the prefectural and municipal goals. Despite the dispersed state authority alongside the increased discretionary power at the multiple jurisdictional levels, the cross-level coordination has been guided through the established goals (e.g., the fixed, ambitious numerical target for a decade). The community-based planning schemes for farmland use (e.g., Community Agricultural Master Plan) have been established. Yet, most of them have effected subsidiary provision, which is again based on the national standards. The subsidies have certainly sustained farming and farmers to

some extent, but the locals, including the recipients of subsidies, have had little motivation to collectively discuss future farmland use and management under the current planning system.

The present MLG model largely built on the state rationale that is to redistribute the fixed, productive resources through the durable jurisdictional ladders so as to ensure agricultural multifunctionality beneficial for the citizens. Though a few innovative initiatives at the prefectural and municipal levels were emerging, the hasty, ambitious and uniform imperatives with the budgetary control have overridden such administrative entrepreneurship. Despite the effort to continuously monitor, evaluate and improve the cross-level mechanism, the state's perspective on farmland disconnected from people has impeded mutual learning and hindered overall innovation in governing farmland.

Farmers have managed farmland, hinging on their continuous commitment to farmland, their family and community. Despite the economic volatility and environmental uncertainties, their sense of responsibility for farmland use and management has been nurtured through their tangible and intangible connections with it. Their commitment cannot be reduced simply to the economic or volume terms, but rather extends to all the dimensions of human wellbeing.

As an attempt to actively disconnect ownership and usership, the FB program could be detrimental. Despite the legal stipulations on tenants' responsibilities for sound integration in local agriculture, it has not been equipped with a substantial mechanism to enshrine tenants' long-term commitment to farming. Rather, farmers' commitment to farming as well as good social relations in local communities has been developed through spontaneous and ad-hoc local practices. By enhancing owners' detachment or disengagement from farming and farmland

management, the program mechanism may invite one-time profit seekers to co-opt farmland-use or exacerbate farmland abandonment.

Nonetheless, the farmland banking scheme may meaningfully effect nurturing of agricultural resources in a sustainable manner if the coordination mechanism is boosted and enhanced to revive the connections between people and farmland. In this regard, people need to be neither landowners nor locals but could be new actors from outside the farming community and sector. As the fate of generational turnover, few local farmers might be available for farming and farmland management whereas locals would be increasingly indifferent about farmland use and instead may offer a more hospitable environment for outsiders. Yet, farm families and villages — not necessarily traditional types but new ones such as independent private companies and incorporated cooperatives — are key evolving institutions in governing farmland. These institutions care about human wellbeing and allow for negotiations between various value perspectives. Further attention to subjective, intangible and cultural aspects of farmland would facilitate mutual learning within and across the levels, and thus complement the current governance model that skews towards the material, tangible and economic aspects of farmland. Such a complementary intervention would facilitate sustainable farmland management.

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Appendix A: List of Interviews

Table A1. List of Interviews with Farmers

No	Code	Date	Municipalities (Region)	Residence/Headquarters
Preliminary Survey				
1	160824-FC-WAST	8/24/2016	City C (Noto)	District WA, Village ST
Main Survey				
2	161107-FA-NNI	11/7/2016	City A (Noto)	District N, Village NI
3	161108-FA-NNG	11/8/2016	City A (Noto)	District N, Village NG
4	161108-FA-NNH	11/8/2016	City A (Noto)	District N, Village NH
5	161108-FA-NNC1	11/8/2016	City A (Noto)	District N, Village NC
6	161108-FA-NNC2	11/8/2016	City A (Noto)	District N, Village NC
7	161108-FA-NNI	11/8/2016	City A (Noto)	District N, Village NI
8	161109-FA-NNJ1	11/9/2016	City A (Noto)	District N, Village NJ
9	161109-FA-NNF	11/9/2016	City A (Noto)	District N, Village NF
10	161109-FA-NNJ2	11/9/2016	City A (Noto)	District N, Village NJ
11	161109-FA-KKKA	11/9/2016	City A (Noto)	District K, Village KKA
12	161110-FA-KKYA	11/10/2016	City A (Noto)	District K, Village KYA
13	161110-FA-NNI	11/10/2016	City A (Noto)	District N, Village NI
14	161110-FA-KKYO	11/10/2016	City A (Noto)	District K, Village KYO
15	161110-FA-NNJ	11/10/2016	City A (Noto)	District N, Village NJ
16	161112-FC-WASZ1	11/12/2016	City C (Noto)	District WA, Village SZ
17	161112-FC-WASZ2	11/12/2016	City C (Noto)	District WA, Village SZ
18	161112-FC-WAKY	11/12/2016	City C (Noto)	District WA, Village KY
19	161113-FC-WAHG	11/13/2016	City C (Noto)	District WA, Village HG
20	161113-FC-WAMI	11/13/2016	City C (Noto)	District WA, Village MI
21	161114-FC-SHKO	11/14/2016	City C (Noto)	District SH, Village KO
22	161115-FC-SHIZ	11/15/2016	City C (Noto)	District SH, Village IZ
23	161115-FC-TDNN	11/15/2016	City C (Noto)	District TD, Village NN
24	161116-FC-WAHM	11/16/2016	City C (Noto)	District WA, Village HM
25	161116-FC-WAFK	11/16/2016	City C (Noto)	District WA, Village FK
26	161117-FC-HRUK	11/17/2016	City C (Noto)	District HR, Village UK
27	161118-FC-WADB	11/18/2016	City C (Noto)	District WA, Village DB
28	161119-FC-WAKY	11/19/2016	City C (Noto)	District WA, Village KY
29	161120-FE-TE	11/20/2016	City E (Kaga)	Village TE

No	Code	Date	Municipalities (Region)	Residence/Headquarters
30	161122-FB-U1	11/22/2016	City B (Kaga)	Village U
31	161123-FB-U1	11/23/2016	City B (Kaga)	Village U
32	161123-FB-U2	11/23/2016	City B (Kaga)	Village U
33	161123-FB-U3	11/23/2016	City B (Kaga)	Village U
34	161124-FB-U1	11/24/2016	City B (Kaga)	Village U
35	161125-FB-U1	11/25/2016	City B (Kaga)	Village U
36	161125-FB-U2	11/25/2016	City B (Kaga)	Village U
37	161125-FB-U3	11/25/2016	City B (Kaga)	Village U
38	161125-FB-U4	11/25/2016	City B (Kaga)	Village U
39	161126-FB-U1	11/26/2016	City B (Kaga)	Village U
40	161126-FB-E1	11/26/2016	City B (Kaga)	Village E
41	161126-FB-U2	11/26/2016	City B (Kaga)	Village U
42	161127-FB-U1	11/27/2016	City B (Kaga)	Village U
43	161127-FB-E1	11/27/2016	City B (Kaga)	Village E
44	161127-FB-U2	11/27/2016	City B (Kaga)	Village U
45	161128-FB-S1	11/28/2016	City B (Kaga)	Village S
46	161206-FP-LHT	12/6/2016	Prefecture-wide	City L, Village HT
47	161207-FA-KHD	12/7/2016	City A (Noto)	District K, Village HD
48	161207-FA-NNC	12/7/2016	City A (Noto)	District N, Village NC
49	161207-FA-NNF	12/7/2016	City A (Noto)	District N, Village NF
50	161208-FA-NNG1	12/8/2016	City A (Noto)	District N, Village NG
51	161208-FA-NNC1	12/8/2016	City A (Noto)	District N, Village NC
52	161208-FA-NNG2	12/8/2016	City A (Noto)	District N, Village NG
53	161208-FA-NNC2	12/8/2016	City A (Noto)	District N, Village NC
54	161209-FA-NNC	12/9/2016	City A (Noto)	District N, Village NC
55	161209-FA-NNJ	12/9/2016	City A (Noto)	District N, Village NJ
56	161209-FA-NNH1	12/9/2016	City A (Noto)	District N, Village NH
57	161209-FA-NNH2	12/9/2016	City A (Noto)	District N, Village NH
58	161210-FA-NND	12/10/2016	City A (Noto)	District N, Village ND
59	161210-FA-NNI1	12/10/2016	City A (Noto)	District N, Village NI
60	161210-FA-NNF	12/10/2016	City A (Noto)	District N, Village NF
61	161210-FA-NNI2	12/10/2016	City A (Noto)	District N, Village NI
62	161211-FB-U1	12/11/2016	City B (Kaga)	Village U
63	161211-FB-U2	12/11/2016	City B (Kaga)	Village U

No	Code	Date	Municipalities (Region)	Residence/Headquarters
64	161212-FB-U1	12/12/2016	City B (Kaga)	Village U
65	161212-FB-U2	12/12/2016	City B (Kaga)	Village U
66	161213-FB-U1	12/13/2016	City B (Kaga)	Village U
67	161213-FB-U2	12/13/2016	City B (Kaga)	Village U
68	161213-FB-U3	12/13/2016	City B (Kaga)	Village U
69	161214-FB-U1	12/14/2016	City B (Kaga)	Village U
70	161214-FB-U2	12/14/2016	City B (Kaga)	Village U
71	161214-FB-U3	12/14/2016	City B (Kaga)	Village U
72	161215-FC-WAST	12/15/2016	City C (Noto)	District WA, Village ST
73	161215-FC-HKNR1	12/15/2016	City C (Noto)	District HK, Village NR
74	161215-FC-HKNR2	12/15/2016	City C (Noto)	District HK, Village NR
75	161216-FC-HKNR1	12/16/2016	City C (Noto)	District HK, Village NR
76	161216-FC-HKNR2	12/16/2016	City C (Noto)	District HK, Village NR
77	161216-FC-HKNR3	12/16/2016	City C (Noto)	District HK, Village NR
78	161216-FC-HKNR4	12/16/2016	City C (Noto)	District HK, Village NR
79	161216-FC-HKNR5	12/16/2016	City C (Noto)	District HK, Village NR
80	161217-FC-WAST1	12/17/2016	City C (Noto)	District WA, Village ST
81	161217-FC-WAST2	12/17/2016	City C (Noto)	District WA, Village ST
82	161217-FC-WAST3	12/17/2016	City C (Noto)	District WA, Village ST
83	161217-FC-WAST4	12/17/2016	City C (Noto)	District WA, Village ST
84	170113-FP-JTM	1/13/2017	Prefecture-wide	Town J, Village TM
85	170117-FD-SC	1/17/2017	City D (Noto)	City D, Village SC
86	170122-FB-U1	1/22/2017	City B (Kaga)	Village U
87	170123-FF-AH1	1/23/2017	Town F (Kaga)	Village AH
88	170123-FF-AH2	1/23/2017	Town F (Kaga)	Village AH
89	170123-FF-AH3	1/23/2017	Town F (Kaga)	Village AH
90	170123-FB-YY1	1/23/2017	City B (Kaga)	Village YY
91	170123-FB-YY2	1/23/2017	City B (Kaga)	Village YY
92	180819-FB-U1	8/19/2018	City B (Kaga)	Village U
93	180820-FB-E1	8/20/2018	City B (Kaga)	Village E
94	180820-FB-U1	8/20/2018	City B (Kaga)	Village U
95	180822-FA-NNI	8/22/2018	City A (Noto)	District N, Village NI
96	180823-FC-WAST	8/23/2018	City C (Noto)	District WA, Village ST

Table A2. List of Interviews with Stakeholders

No	Code	Date	Jurisdiction/ Location	Affiliation	Title
Preliminary Survey					
1	160803-SP-AC1	8/3/2016	Prefectural	Chamber of Agriculture	Director-General
2	160803-SP-AC2	8/3/2016	Prefectural	Chamber of Agriculture	Counsellor & Department Chief
3	160803-SP-GV1	8/3/2016	Prefectural	Prefectural Government - Department of Agriculture, Forestry and Fisheries (DAFF)	Group Leader & Division Counsellor, Agricultural Infrastructural Division (AID)
4	160804-SP-FB1	8/4/2016	Prefectural	Ishikawa Agricultural Total Support Organization (INATO)	Group Leader & Advisor
5	160804-SP-GV1	8/4/2016	Prefectural	Prefectural Government - DAFF	Group Leader & Assistant Director, Agricultural Land Planning Group, Agricultural Policy Division (APD)
6	160805-SP-JA1	8/5/2016	Prefectural	Unifier of Japan Agricultural Cooperatives (JA)	Deputy Director-General (JA), Farming Strategy Office
7	160805-SP-JA2	8/5/2016	Prefectural	Unifier of JA	Deputy Director-General (Farmers), Farming Strategy Office
8	160805-SP-JA3	8/5/2016	Prefectural	Unifier of JA	Assistant Manager (Farmers), Farming Strategy Office
9	160805-SP-LF1	8/5/2016	Prefectural	Land Improvement Projects Federation	Project Department Director
10	160805-SP-LF2	8/5/2016	Prefectural	Land Improvement Projects Federation	General Affairs Department Deputy Director & Division Chief
11	160805-SP-LF3	8/5/2016	Prefectural	Land Improvement Projects Federation	Assistant Director of Replotting Division
12	160805-SP-LS1	8/5/2016	Municipal (City D)	Land Improvement Projects Secretariat	Director-General
13	160823-SP-GV1	8/23/2016	Prefectural	Prefectural Government - DAFF	Group Leader, Farm Management Strategy Office, Agricultural Policy Division (APD)
14	160823-SP-GV2	8/23/2016	Prefectural	Prefectural Government - DAFF	Group Senior Official, Farm Management Strategy Office, Agricultural Policy Division (APD)
15	160823-SP-GV3	8/23/2016	Prefectural	Prefectural Government	Counsellor
16	160824-SM-DC1	8/24/2016	Municipal (City D)	Municipal Government	Senior Official, Division of Agriculture, Forestry and Fisheries
17	160824-SM-DC2	8/24/2016	Municipal (City D)	Municipal Government	Assistant Manager, Division of Agriculture, Forestry and Fisheries
18	160824-SM-DC3	8/24/2016	Municipal (City D)	Municipal Government	Secretariat of Agricultural Committee
19	160824-SR-ON1	8/24/2016	Regional (Oku-Noto: Noto)	DAFF Regional Office	Director-General

No	Code	Date	Jurisdiction/ Location	Affiliation	Title
20	160824-SR-ON2	8/24/2016	Regional (Oku-Noto: Noto)	DAFF Regional Office	Department Director
21	160825-SM-CA1	8/25/2016	Municipal (City C)	Municipal Government	Counselor, Secretariat of Agricultural Committee
22	160825-SM-CA2	8/25/2016	Municipal (City C)	Municipal Government	Senior Official, Secretariat of Agricultural Committee
23	160825-SM-CC1	8/25/2016	Municipal (City C)	Municipal Government	Assistant Manager, Division of Industrial Promotion
24	160825-SM-CL1	8/25/2016	Municipal (City C)	Land Improvement Projects Secretariat	Director-General
25	160825-SM-CJ1	8/25/2016	Municipal (City C)	JA-CS	Department Director
26	160826-SN-NF1	8/26/2016	Private/Non-profit	Forestry Association of Noto	Conusellor
27	160826-SN-NF2	8/26/2016	Private/Non-profit	Forestry Association of Noto	Department Director
28	160826-SR-NN1	8/26/2016	Regional (Naka-Noto: Noto)	DAFF Regional Office	Department Director
29	160826-SR-NN2	8/26/2016	Regional (Naka-Noto: Noto)	DAFF Regional Office	Division Chief
30	160826-SM-HT1	8/26/2016	Municipal (Town H)	Municipal Government	Secretariat of Agricultural Committee
31	160826-SM-HT2	8/26/2016	Municipal (Town H)	Municipal Government	Assistant Section Chief, Division of Agriculture and Forestry
32	160829-SR-MK1	8/29/2016	Regional (Minami-Kaga: Kaga)	DAFF Regional Office	Department Director
33	160829-SM-EC1	8/29/2016	Municipal (City E)	Municipal Government	Senior Official, Division of Agriculture, Forestry and Fisheries
34	160829-SM-EA1	8/29/2016	Municipal (City E)	Municipal Government	Secretariat of Agricultural Committee
35	160829-SM-BC1	8/29/2016	Municipal (City B)	Municipal Government	Division Chief of Agricultural Policy, Director General of Secretariat of Agricultural Committee
36	160829-SM-BC2	8/29/2016	Municipal (City B)	Municipal Government	Section Chief, Division of Agricultural Policy
37	160830-SR-IK1	8/30/2016	Regional (Ishikawa: Kaga)	DAFF Regional Office	Division Chief
38	160830-SM-IC1	8/30/2016	Municipal (City I)	Municipal Government	Assistant Director, Division of Agricultural Promotion
39	160830-SM-IC1	8/30/2016	Municipal (City I)	Municipal Government	Senior Official, Division of Agricultural Promotion
40	160830-SM-IA1	8/30/2016	Municipal (City I)	Municipal Government	Secretariat of Agricultural Committee

No	Code	Date	Jurisdiction/ Location	Affiliation	Title
41	160830-SM-IJ1	8/30/2016	Municipal (City I)	JA-IH	Division Chief
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42	161114-SM-CC1	11/14/2016	Municipal (City C)	Municipal Government	Assistant Manager, Division of Industrial Promotion
43	161115-SM-CA1	11/15/2016	Municipal (City C)	Municipal Government	Counselor, Secretariat of Agricultural Committee
44	161118-SM-CL1	11/18/2016	Municipal (City C)	Land Improvement Projects Secretariat	Director-General
45	161121-SR-MK1	11/21/2016	Regional (Minami-Kaga: Kaga)	DAFF Regional Office	Department Director
46	161121-SR-MK2	11/21/2016	Regional (Minami-Kaga: Kaga)	DAFF Regional Office	Division Director
47	161121-SM-BL1	11/21/2016	Municipal (City B)	Irrigation/Land Improvement Projects Secretariat	Conusellor
48	161122-SM-BC1	11/22/2016	Municipal (City B)	Municipal Government	Division Chief of Agricultural Policy, Director General of Secretariat of Agricultural Committee
49	161122-SM-BC2	11/22/2016	Municipal (City B)	Municipal Government	Section Chief, Division of Agricultural Policy
50	161124-SM-BJ1	11/24/2016	Municipal (City B)	JA-BY	President
51	161129-SR-NN1	11/29/2016	Regional (Naka-Noto: Noto)	DAFF Regional Office	Division Chief
52	161129-SM-AJ1	11/29/2016	Municipal (City A)	JA-AW	Deputy Director-General, Cultivation Support Office
53	161130-SM-AC1	11/30/2016	Municipal (City A)	Municipal Government	Deputy Chief, Division of Agriculture and Forestry
54	161130-SM-AC2	11/30/2016	Municipal (City A)	Municipal Government	Assistant Manager, Division of Secondary Nature Promotion
55	161130-SM-AC3	11/30/2016	Municipal (City A)	Municipal Government	Senior Technical Manager, Division of Secondary Nature Promotion
56	161130-SM-AA3	11/30/2016	Municipal (City A)	Municipal Government	Senior Technical Manager, Secretariat of Agricultural Committee
57	161206-SP-GV1	12/6/2016	Prefectural	Prefectural Government	Conusellor
58	161206-SP-GV2	12/6/2016	Prefectural	Prefectural Government - DAFF	Group Leader, Farm Management Strategy Office, Agricultural Policy Division (APD)
59	161206-SP-FB1	12/6/2016	Prefectural	INATO	Group Leader & Advisor

No	Code	Date	Jurisdiction/ Location	Affiliation	Title
60	161206-SP-GV3	12/6/2016	Prefectural	Prefectural Government - DAFF	Group Leader & Assistant Director, Agricultural Land Planning Group, Agricultural Policy Division (APD)
61	161206-SP-GV4	12/6/2016	Prefectural	Prefectural Government - DAFF	Senior Official: Agricultural Infrastructural Division (AID)
62	161212-SM-BJ1	12/12/2016	Municipal (City B)	JA-BX	Executive Director
63	170114-SN-MN1	1/14/2017	Private/Non-profit	Non Profit Organization Nature School	President
64	170114-SN-ME1	1/14/2017	Private/Non-profit	Elderly Group	President & Local Historian
65	170115-SN-MT1	1/15/2017	Private/Non-profit	Terraced Paddy Fan Club	President
66	170115-SP-GV1	1/15/2017	Prefectural	Prefectural Government - Department of Environment	Division Counsellor & Farmer (City M)
67	170116-SM-CJ1	1/16/2017	Municipal (City C)	JA-CS	Department Director
68	170116-SR-ON1	1/16/2017	Regional (Oku-Noto: Noto)	DAFF Regional Office	Director-General
69	170116-SR-ON2	1/16/2017	Regional (Oku-Noto: Noto)	DAFF Regional Office	Department Director
70	170116-SM-GT1	1/16/2017	Municipal (Town G)	Municipal Government	Division Chief of Industrial Promotion, Director General of Secretariat of Agricultural Committee
71	170118-SN-NU1	1/18/2017	Private/Non-profit	National University	Associate Professor (Geography)
72	170118-SN-NU2	1/18/2017	Private/Non-profit	National University	Professor (Agronomy - Insect Ecology)
73	170119-SN-PU1	1/19/2017	Private/Non-profit	Prefectural University	Professor (Agronomy - River Ecology)
74	170119-SN-PU2	1/19/2017	Private/Non-profit	Prefectural University	Associate Professor (Agronomy - Rural Planning)
75	170119-SN-NU1	1/19/2017	Private/Non-profit	National University	Professor (Economics)
76	170120-SP-DC1	1/20/2017	Prefectural	Agricultural Development Corporation	Vice Chief Director
77	170120-SP-DC2	1/20/2017	Prefectural	Agricultural Development Corporation	Board of Director
78	170120-SP-DC3	1/20/2017	Prefectural	Agricultural Development Corporation	Advisor of Agriculture and Livestock
79	170120-SN-HM1	1/20/2017	National	Hokuriku Regional Office, Ministry of Agriculture, Forestry and Fisheries	Assistant Director, Division of Agricultural Land Policy Promotion
80	170120-SN-HM2	1/20/2017	National	Hokuriku Regional Office, Ministry of Agriculture, Forestry and Fisheries	Official, Division of Agricultural Land Policy Promotion

No	Code	Date	Jurisdiction/ Location	Affiliation	Title
81	170120-SN-HA1	1/20/2017	National	Hokuriku Regional Office, Ministry of Agriculture, Forestry and Fisheries	Assistant Manager, Division of Farmland Diversion
82	170124-SM-FT1	1/24/2017	Municipal (Town F)	Municipal Government	Deputy Chief, Division of Industry and Economics (Secretariat of Agricultural Committee)
83	180820-SM-BC1	8/20/2018	Municipal (City B)	Municipal Government	Division Chief of Agricultural Policy, Director General of Secretariat of Agricultural Committee
84	180820-SM-BC2	8/20/2018	Municipal (City B)	Municipal Government	Section Chief, Division of Agricultural Policy
85	180821-SP-FB1	8/21/2018	Prefectural	INATO	Executive Director
86	180821-SP-FB2	8/21/2018	Prefectural	INATO	Group Leader & Advisor
87	180821-SP-FB3	8/21/2018	Prefectural	INATO	Advisor
88	180821-SP-GV1	8/21/2018	Prefectural	Prefectural Government - DAFF	Division Chief, Agricultural Infrastructural Division (AID)
89	180821-SP-GV2	8/21/2018	Prefectural	Prefectural Government - DAFF	Group Leader & Division Counsellor, Agricultural Infrastructural Division (AID)
90	180822-SM-AC1	8/22/2018	Municipal (City A)	Municipal Government	Assistant Director, Division of Planning and Finance
91	180822-SM-AC2	8/22/2018	Municipal (City A)	Municipal Government	Advisor, Division of Agriculture and Forestry
92	180822-SM-AA1	8/22/2018	Municipal (City A)	Municipal Government	Secretariat of Agricultural Committee
93	180823-SM-CC1	8/23/2018	Municipal (City C)	Municipal Government	Assistant Manager, Division of Industrial Promotion
94	180824-SP-AC1	8/24/2018	Prefectural	Chamber of Agriculture	Director-General
95	180824-SP-AC2	8/24/2018	Prefectural	Chamber of Agriculture	Counsellor & Department Chief
96	180824-SP-AC3	8/24/2018	Prefectural	Chamber of Agriculture	Official
97	180824-SP-JA1	8/24/2018	Prefectural	Unifier of JA	Deputy Director-General (Farmers), Farming Strategy Office
98	180824-SP-JA2	8/24/2018	Prefectural	Unifier of JA	Assistant Manager (Farmers), Farming Strategy Office

Appendix B: Interview Guides

B1. Sample Questions for Farmers

1. Background: The questions are designed to provide background on respondent's role in farming.
   1) Title and affiliation (e.g., types of farms - business corporation (*kabushiki-gaisha*), limited company (*yugen-gaisha*), corporate farming combination (*noji-kumiai-hojin*), etc.) [Note: this information can be gathered from an interviewee's business card.]
   2) Background of farming:
   - How long have you been engaged in farming, and how and why did you start farming?
   - How long have you been living in this village, and did you succeed to farming from any of your parents and relatives? — If not succeeding from your family, why did you choose this place for your farming?
   - Do you fully rely on farming for your livelihoods? If not, what are the income sources other than farming, and to what extent do you depend on the income from farming?
   - How is the size of your farming and farmland? (e.g., number of employees, yields, farmland area size)
   - How have you trained yourself for farming and farm management?

2. Farmland Use & Management: The questions focus on respondents' involvement in tenancy arrangements and agricultural landscape management.
   1) Please describe your involvement in tenancy arrangements.
   (a)If you participate in any tenancy arrangements, please let me know:
      i. How long have you been involved in tenancy arrangements? How and why did you get involved?
      ii. How did you identify lenders or borrowers of farmland? How did you set up an agreement with what terms and conditions?
      iii. How and with whom do you work with to arrange and maintain tenancy?
      iv. What is your objective to pursue tenancy arrangements?
      v. Whether, and if so, how have your tenancy arrangements changed over time? (e.g., locations, distributions, area size, crops, types of property rights such as use rights and consignation of cultivation practices) — Have you observed any changes in demands for tenancy over time? Have your tenancy arrangements been influenced by any policy change (e.g., Farmland Bank Program since 2014, and Agricultural Land Act amendment in 2009)?
      vi. What are the benefits/advantages as well as the challenges/disadvantages you have in engaging in tenancy arrangements?
      vii. What is your plan ahead to manage tenancy arrangements?
   (b)If you do NOT participate in any tenancy arrangements, please let me know:
      i. Have you ever been solicited to be involved in any tenancy arrangements? — if so, when and by whom?
      ii. Why not do you participate in any tenancy arrangements? (e.g., any obstacles and challenges, availability of preferable tenancy options, any risks you perceive)

iii. If there are opportunities available for you to join in a certain kind of tenancy arrangements, are you willing to participate in it? — if so, why and what kind of tenancy arrangements do you want to join? If not, why not?
iv. Do you have any benefits/advantages as well as challenges/disadvantages from not being involved in tenancy arrangements?
v. What is your objective to maintain your farmland as it is?
vi. Has your farmland management been influenced by any policy change (e.g., Farmland Bank Program since 2014, and Agricultural Land Act amendment in 2009)?
vii. What is your plan ahead to manage your farmland?

2) Please describe your involvement in *collective* agricultural landscape management.
i. How and why have you been involved in what *collective* management? (e.g., roles and responsibilities, purposes, scale of activities — agricultural facilities management, agricultural committee, agricultural cooperative activities, etc.)
ii. Whom do you work closely with in *collective* management?
iii. Have your engagement in management changed over time, if so by what?
iv. What are the challenges/constraints and benefits/advantages in *managing your farmland* and engaging in *collective landscape management*?
v. Are there any deliberative processes held among different stakeholders to discuss tenancy arrangements and/or farmland and landscape management? — How have you been involved in the process of Community Agricultural Master Plan (CAMP)?

3. Value Perspectives to Farmland: The questions are designed to assess respondent's values attached to farmland — Respondents' will be asked to illustrate any examples for their descriptions.
1) How *"rich"* or *"poor"* do you perceive your farmland? Could you draw on any quantifiable measures to describe how rich or poor it is? (e.g., area size, fertility, and water scarcity) — How does such affluence or inadequacy affect the benefits you gain from farmland (e.g., yields, land conservation), and how does it influence quality of your life (e.g., nutrient/health, social relations)?
2) How and why is your farmland *"important"* or *"unimportant"* to you? (e.g., for meeting your livelihood needs, and for keeping it as cultural asset)
3) Do you have any particular *"preference"* to (or *interests* in) your farmland over other farmland, and why or why not? (e.g., maintaining inter-generational asset, securing livelihoods)
4) What *"principle(s)"*(or *criteria*) do you draw on to make a decision for farmland use or abandonment (i.e., holding, using and/or managing your farmland)? (e.g., ancestral heritage, needs for rural revitalization, living in harmony with nature, a fulfillment of life)

4. Conclusion:
1) Please tell me the biggest challenge/difficulty/most frustrating thing you face?
2) What do you wish that you could change?
3) Who do you consider to be the most significant actors pursuing better use of farmland? Please provide some examples.

4) Who else might you know that I should interview? (Name, Affiliation, Contact information, Relevance)
5) What other questions should I have asked that I did not?
6) Do you agree to be contacted for any additional questions, if any?

B2. Sample Questions for Stakeholders

1. Background: The questions are designed to provide background on respondent's professional role in tenancy arrangements.
   1) Title and affiliation (e.g., professional position, agency and department) [Note: this information can be gathered from an interviewee's business card.]
   2) Professional background:
   - How long have you been in your current position and current agency, and what are your main roles and responsibilities in this position?
   - How long have you been engaged in the work related to tenancy arrangements, and what role do you play in tenancy arrangements?

2. Policies: The questions focus on the the current policies and programs facilitating tenancy arrangements (i.e., Farmland Bank Program and other relevant policies and programs).
   1) How do you see the features of the Farmland Bank Program in your context? (the policy goals, the stakeholders involved in establishing the program, reasons behind the program establishment)
   2) How has the Farmland Bank Program influenced your roles and responsibilities in facilitating tenancy arrangements as well as agricultural landscape management?
   3) How have the tenancy arrangements been linked to the process of Community Agricultural Master Plan (CAMP)?
   4) What are the strengths and weaknesses of the Program?
   5) What are the factors that affect the performance of tenancy arrangements? (e.g., social integrity, local culture, technical adaptability, economic incentives for lenders and/or borrowers)
   6) Are there any other policies or programs that you find influential in tenancy arrangements and agricultural landscape management?(e.g., Agricultural Land Act amendment in 2009)

3. Engagement in Tenancy Arrangements: The questions deal with respondents' involvement in tenancy arrangements.
   1) What kind of tenancy arrangements have you dealt with?
   2) What are the roles and responsibilities of your agency and department in tenancy arrangements, and what is the mission in this regard? — what specific tasks do you pursue in tenancy arrangements in your professional capacity?
   3) What is the scope/scale of your agency and department in regard to tenancy arrangements? (e.g., the jurisdictional scale, the geographical scale, the sectoral scale)
   4) Whom (i.e., organizations and individuals) do your agency and department work closely with in pursuing the programs related to tenancy arrangements?

5) Have your agency and department been influenced by any policy changes (e.g., Farmland Bank Program since 2014, the Agricultural Land Act amendment in 2009)?
6) Have you observed any changes in demands or needs for tenancy arrangements over time?
7) What are the challenges and opportunities in dealing with tenancy arrangements?
8) Are there any deliberative processes held among different stakeholders to discuss tenancy arrangements and/or farmland and agricultural landscape management?
9) What is your perspective on the trends of tenancy arrangements for the near future (in 5-10 years)?

4. Value Perspectives to Farmland: The questions are designed to assess respondent's values perspectives to farmland under their jurisdiction — Respondents' will be asked to illustrate any examples for their descriptions.
   1) How *"rich"* or *"poor"* do you perceive farmland under your jurisdiction? Could you draw on any quantifiable measures to describe how rich or poor it is? (e.g., area size, fertility, and water scarcity) — How does such affluence or inadequacy affect the benefits people gain from farmland (e.g., yields, land conservation), and how does it influence quality of life of the communities under your jurisdiction (e.g., nutrient/health, social relations)?
   2) How and why is farmland *"important"* or *"unimportant"* to your agency or communities under your jurisdiction? (e.g., for sustaining rural economy, for preserving biodiversity, and for keeping it as cultural asset)
   3) Do you have any particular *"interests"* in (or *priorities* to) certain area(s) of farmland over others under your jurisdiction, and if so, why? (e.g., maintaining cultural asset or compensating farmers in a certain area)
   4) What *"principle(s)"* do you draw on to promote farmland use? (e.g., maintaining land conservation, revitalizing rural economy, promoting a cultural asset) — Is there any case that you do not promote farmland use or facilitate land use change, if so why?

5. Conclusion:
   1) Please tell me the biggest challenge/difficulty/most frustrating thing you face?
   2) What do you wish that you could change?
   3) Who do you consider to be the most significant actors pursuing better use of farmland? Please provide some examples.
   4) Who else might you know that I should interview? (Name, Affiliation, Contact information, Relevance)
   5) What other questions should I have asked that I did not?
   6) Do you agree to be contacted for any additional questions, if any?