

# 論文審査の結果の要旨

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Today, population aging is recognized as one of the most complex challenges of our society. This new demographic trend has a profound impact not only on economic and political dimensions but also on cultural and familial structures, and such impact will increasingly be intensified in the coming decades.

Among all the countries, Japan is well known for its rapidly aging and shrinking population. The current challenge of the country is not merely aging of its population, but rather a complex mix of aging trend of its demography and accompanying social challenges across all scales. It is of particular interest, especially for emerging economies where social changes including population dynamics are rapidly evolving; to observe how Japan adapts to such rapid aging that requires critical reforms in designs and functions of its society.

The issue of aging society can be discussed at different scales, such as national, community, and individual scales. Among these scales, this research addresses the issue of aging society at the community scale. While the previous studies on aging are concentrated on national and individual scales, the socio-economic impacts of aging have not been well addressed at the community scale. In particular, the process of functional decline in rural communities needs to be further investigated. Knowing that the degree of aging society is more pronounced in rural areas, this research sets its focus on examining the impact of aging population in the rural communities. Rural areas of Japan are facing functional declines, which appear in diverse dimensions such as general living conditions, resource management, and local events and traditions. Such functional declines in rural communities may be characterized as community marginalization.

The core challenge for those rural areas where aging and depopulation are progressing is to build a local system that can adapt to various functional declines. Since population aging is changing the state of rural areas, a more holistic approach is required to analyze the transition of entire rural system. This research applies the multifunctionality framework to elaborate discussions on both past and future transitions of rural areas. This framework captures the quality of rural system based on the balance among three types of capitals, namely economic, environmental, and social capitals. The framework also suggests three possible future pathways for rural areas; they are (i) super-productivist, (ii) de-agrarianized, and (iii) re-localized rural systems.

Drawing upon the challenge of community marginalization and the need for a holistic approach to examine aging society phenomenon in rural areas, this research sets its principal objective as elaborating possible responses to the continuous functional declines at the community scale as well as to discuss possible future pathways for the rural areas. In order to achieve this objective, the following two subsidiary objectives are set; (i) to elucidate the declining process of rural communities by examining the living conditions of residents, and (ii) to analyze community-based initiatives in order to discuss possible future pathways for rural areas within the multifunctionality framework.

The first objective is pursued through a fieldwork in Kamikoani village, Akita, Japan, that aims at investigating the process of community marginalization through examination of the living conditions and the state of collective actions by the community's residents. For this fieldwork, a working hypothesis was developed from the framework of community marginalization which claims that the quality of community function will decline as the size of the community population becomes smaller, and also such decline of community function level would occur with two turning points after each of which a significant fall in its community function level will occur. Based on this framework, the target communities are divided into the five community groups (labelled as Groups 1 to 5) by their population size. A questionnaire survey was conducted in the

form of a complete survey. It targeted 1,039 households in all 20 communities, and there were 520 returns, which corresponded to a response rate of 50.0%. The collected data were examined through qualitative analysis as well as by statistical tests among the five community groups. In addition, semi-structured interviews to local key informants were conducted mainly to verify the findings from the questionnaire and to investigate the state of collective actions of residents at each community groups. These two surveys were conducted jointly with the local government of Kamikoani.

Those findings of this first fieldwork suggested that there is a certain degree of divergence in the state of community function among the studied five community groups. The findings suggest that the current state of Group 5 communities, which are smaller than 40 residents, is significantly restricted in their living conditions, especially in respect to transportation and access, property management, income satisfaction, the form of social relationships, and the role of out-migrated family members. Therefore, the current state of Group 5 is considered to be in an advanced stage of community marginalization. This first fieldwork have also found that those communities in Group 4 are starting to experience downsize or disappearance of local activities, particularly in those activities related to local festivals and rituals. Such differences were only found in the qualitative factors rather than physical changes in living conditions. This result suggests that the current state of Group 4 is considered as the turning point to further marginalization. Regarding Group 1 to 3, there was no clear evidence of significant community marginalization; however the result of self-evaluation by the residents on their living conditions indicated that all five community groups are feeling a certain degree of anxiety on transportation, access to groceries, and commute to work, employment opportunities, and lack of successors.

To achieve the second subsidiary objective of this research, a second fieldwork was conducted on community-based projects in the United Kingdom. In-depth interviews were conducted with six community projects and one supporting organization in the country. The collected data were transcribed and examined by open and closed coding methods in qualitative data analysis. Some of the common characteristics of the community-based projects identified were: (i) Responding to community or social concerns, (ii) Being multipurpose in project operations, (iii) Strong sense of localism, and (iv) Networking with other projects. In addition, the following two challenges were identified: (i) Human resource issues, and (ii) Finance issue. Additionally, the role of national supporting organization was found to be critical in order to gain required knowledge and skills that are not available within communities. The network created among the rural communities through this organization was also recognized as an important aspect for the sustainable management of the community-based projects in the UK.

Those findings from the first and second fieldworks were analyzed using the multifunctionality framework. At first, the current state of Kamikoani can be seen as the mixture of marginalization and subsequent re-organization phase to one of the possible pathways. The community marginalization is added as the fourth possible pathway for rural areas in the multifunctionality framework. The advance of marginalization at individual rural communities will ultimately lead to a larger unit of rural system such as a village or town to take this fourth direction of rural transition in which the actual quantity of three types of capitals is reduced. Secondly, regarding the current revitalization initiative by an art festival in Kamikoani, two main challenges are suggested. The first challenge is about the design of the project. The findings of the second fieldwork in the UK suggest that those community-based projects are commonly focusing on either local or social concerns. By this way, it becomes easier to have active participation of local residents to the project. In this respect, an art festival is an entirely new idea for the villagers, thus another process to present the link between the current state of the village and the possible positive outcomes of the initiative is required. The second challenge is about its finance. Currently, the entire budget is covered by subsidies from the prefectural and village governments. Although the objectives are different between the art festival in Kamikoani and community-based projects in the UK, its finance is a critical issue not only for the continuation of the operations but also for the enhancement of economic effects of their initiatives.

Based on the analysis, two major approaches for Kamikoani were discussed, which are (i) Redefinition of system boundaries for community functions, and (ii) Engagement with external entities. As the results of the first fieldwork showed, there was a divergence in the quality of community functions among the community groups. This point suggests that the present system boundary of rural communities is not working well to maintain a set of community functions; therefore those system boundaries could be re-defined based on the types of functions. The second approach suggests that the engagement with external entities is imperative to make those rural communities socially stable. The findings from the second fieldwork also substantiate the critical role of external entities in providing required knowledge and skills for the operation of community projects. While the redefinition of system boundaries could make social and environmental aspects of communities stable, it would be a challenge to achieve vibrant economic activities internally. For such an objective, the engagement with external entities could be structurally designed.

This research makes three major contributions. The first contribution is that this study situates the issue of rural declines in Japan within the context of global aging. As aging society phenomenon is going to be prevalent in emerging economies, similar patterns of rural declines are likely to occur. Such state of rural areas may be underestimated behind the rapid economic growth and emerging issues in cities. This study structures the issue of aging societies in the rural setting and provided an empirical study on the marginalization at both community and village scales. The second contribution is the integration of community marginalization within a larger conceptual framework of rural transition, which is the multifunctionality framework. Based on the findings from the fieldwork in Kamikoani this research suggests the marginalization pathway as the fourth pathway within the framework that explains the trend of rural decline in Japan. In addition, by the application of the multifunctionality framework this study brings the findings from two fieldworks to a system scale discussion. The third contribution of this study is on the conduct of empirical study about the process of community marginalization in Japan and community-based projects in the UK. The collected data through fieldworks will be initial data for further empirical investigations on aging issues in rural areas.

Regarding the future research, the following two topics are suggested. The first topic is a conduct of the same set of surveys in other town and village scale municipalities. This is for comparative studies on the process of community marginalization. It would also be useful to conduct a longitudinal study in the same locations, though it may not be quick enough to bring out practical policy approaches. In order to respond to the diverse state of rural communities in their marginalization states, it is an urgent issue to develop a set of approaches to all types of rural communities. The second topic is about the aging society issue in Asia. It would be extremely important to examine the aging society phenomenon at the regional scale of Asia in order to understand the social change in the rapidly aging countries. Such analysis should perhaps be done with the case of rural Japan as a reference so as to develop a comprehensive set of approaches covering different situations.

This dissertation hereby has been approved for fulfilling the requirement for the degree of Ph.D. in Sustainability Science.

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