

farm households and they also tend to marry young. Table 1 shows how the backgrounds of farmer successors relate to their marital status, using Analytical Type 2 of Quantification Theory. According to the outcome, those who became involved in the family farming business straight after the completion of education are very likely to be married and this tendency

Table 1. Factor Analysis of Farmer Successors' Backgrounds Related to Marriage Conditions by the Analytical Type 2 of Quantification Theory

	Successor's background	Number (persons)	Share of the married (%)	Range	Category score	Independence test (χ^2 test)
School career	High school	23	91	2.43	0.50	**
	Colleges / technical schools	12	50		-1.50	
	University and above	7	100		0.93	
The first employment	Family farming	32	88	0.91	0.22	
	Employment other than Farming	10	60		-0.69	
Age range	Under 30	20	70	0.41	-0.21	
	Over 30	22	91		0.20	

Probability of correct discrimination ratio 76%

Note: No relationship with significant difference is found amongst three variables by independence test.

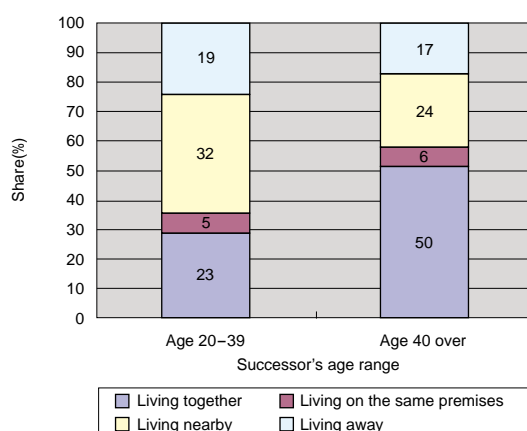


Fig. 1. Distributions of Habitations of Two Married Generations by Successor's Age Range

is influenced by the school career.

The difficulty of getting married for rural males (especially farmer successors) is pressing for the transformation of the lineal family formation, which has a deep and firm root in their tradition. One of the hard rules that keep the tradition going is the cohabitation of two married generations, and this is on the verge of making a complete change. Shown in Fig.1 are distributions of different types of habitations made by two married generations from ten communities in semi-mountainous areas, categorized by the successor's age range. 40% of married successors live apart from parents, and the rate is almost equivalent to that of those who live either with or close to their parents. A rapidly increasing new trend towards living apart from parents over the last ten years is reflected in the large distribution of habitation by those who are under 40.

In conclusion, the difficulty of getting married for the successors of farm households contributes not only to the decline in birth rates in a major way, but also to the transformation of the traditionally maintained lineal family formation.

3. Related publications

Aikawa, Y. (2001.7) Change of Farm Family and the Difficulties of Marriage in the Youth and the Middle-aged, *NORIN KEIZAI*.

Aikawa, Y. (2001.9) Problems of Declining Birth Rate and a Growing Proportion of Elderly People in Rural Communities, *PRIMAFF REVIEW* 1.

Frontier Cost Function Analysis of Japanese Multipurpose Agricultural Cooperatives

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According to the results from the past measures of Cost Function Analysis undertaken by Japanese Multipurpose Agricultural Cooperatives, economy of scale was observed, which indicates the merits of a merger between Agricultural Cooperatives. However, as the accurate evaluation of the benefits of the merger requires a measure of Cost Function in terms of production efficiency, the past research is inconclusive. Hence, the objective of this research is to perform a more accurate economic analysis of a merger by estimating Frontier Cost Function of Japanese Multipurpose Agricultural Cooperatives with regard to production efficiency.

In the result from the estimation and analysis of Frontier Cost Function, economy of scale was observed. Nevertheless, the expansion of the scale of Japanese Multipurpose Agricultural Cooperatives has already reached its optimum level; therefore, the extensive cost reduction effect by further expansion can not be expected. The effects of a merger vary depending on the structure of the cooperatives; the agricultural cooperatives specializing in banking receive a larger benefit from the merger. Depending on circumstances however, it is still possible that the expected merger turns out to be cost-augmentative. It is evident that since further expansion in the scale of

economic effect brought by the merger can not expected, the improvement of efficiency of management by organizational reformation has become critical.

Moreover, positive analysis on the comprehensible improvement of productivity within the management of Multipurpose Agricultural Cooperatives between the 1980s and mid 1990s was carried out based on a TCI approach (Firm-Specific Indexed of Technical Change) which was used in the research of the measure of efficiency within the aviation industry and banking industry. The result indicates that during this period, the trend of the TCI increased about 30 % (Fig. 1), however the TCI is floundering, and shows no marked changes especially in recent years. Next, the TFP (Total Factor Productivity) change rate with regard to the total technological change and scale merit were measured (Fig. 2), and the result indicates stagnant growth in technological changes as well as the scale economy effect. As can be seen from the rate which indicates subzero growth in the 90s, the TFP shows little increase. The result proves the depression in Japanese Multipurpose Agricultural Cooperation Management from the perspective of productivity. The result indicating the decrease in the contribution to the productivity by scale of benefit as well as the stagnation in the rate of technological changes reveals the limits of the merger aiming at the increase in productivity.

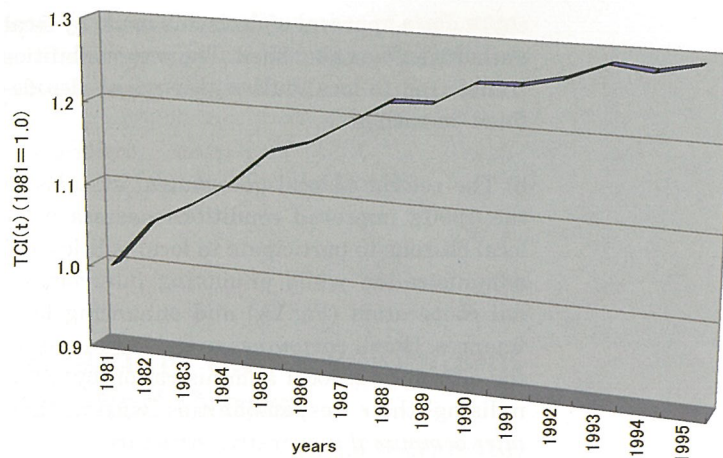


Fig. 1. Trends of the TCI in Japanese Multipurpose Agricultural Cooperatives from 1991 to 1995

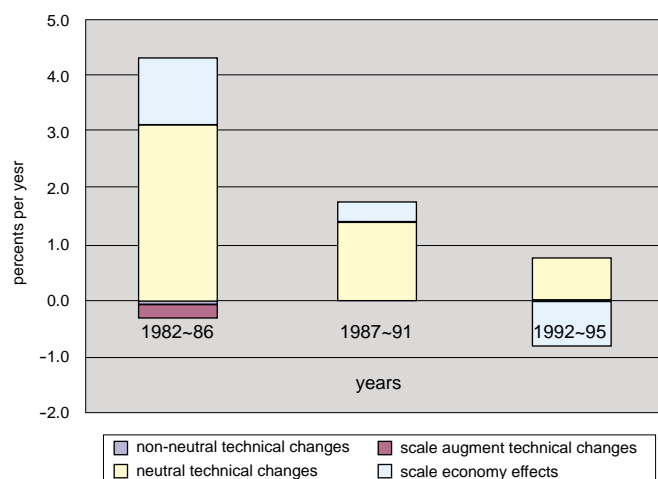


Fig. 2. Changes of the TFP

A Comparative Analysis of the Institutional Construction of Rural Development Policy

Keiichi ISHII

1. Objective

Since the 1980s, rural development policy has been expanded to enable the farm economy to adapt to the decline of price support policy oriented by EU Common Agricultural Policy and to reduce economic disparities between regions. Meanwhile, efforts are being sought to enhance the ability of local policy makers to assure rural development policy. The objective of our research was to analyse the structure of local authorities in major European countries and to acquire knowledge that enables comparative studies of rural development policy making implemented in these European countries with those in Japan.

2. Method

The research involved analysing docu-

ments of rural development policy studies in Europe. The current regional situations in major European countries were also surveyed by means of both literary analysis and field research. The organisational characteristics of local government systems were clearly defined to analyse the relationship to rural development policy making.

3. Outline of the results

In 2001, a field survey was carried out in Langres, Haute-Marne, France, the results of which are summarized below.

(1) Institutional changes in French rural communes

a) Decentralization was introduced in the early 1980's and administrative supervision, in-