

Census analysis series No.1

As part of the project titled, “Study on Improving Agricultural Management, as well as the Maintenance and Revitalization of Farm Communities, in light of the Structural Changes in Regional Agriculture and Rural Society” (FY2021–FY2023), a team assembled by PRIMAFF has conducted a comprehensive analysis of the 2020 Agricultural Census. We will introduce articles summarizing the key points of the analysis in a series of 12 articles, starting with this issue.

Analysis of agricultural management entities operating large-scale rice paddies

Census analysis team of the project on the structure of the agricultural industry and rural regions

Large-scale family management entities see rapid growth in numbers, while those operated by organizations stabilize.

In prefectures with rice paddies, the number of agricultural management entities fell to 825,854 in 2020, a decline of about 300,000 every five years since 2010. Of these entities, 98% were family-run businesses, with only 2% (or 16,169) operated by organizations. A significant trend observed in the 2020 census was the increasing scale of family management entities. The threshold at which agricultural management entities increase or decrease in number has risen from 5ha to 10ha. (Entities with rice paddies of 10ha or larger saw an increase, while those with smaller rice paddies decreased.)

Table 1 presents the changes in the number of agricultural management entities with rice paddies of 10ha or larger and the rate at which they incorporated. Data for family management entities and organized management entities are displayed separately. Family management entities with rice paddies of 10ha or larger consistently grew in number. The latest census indicates that the growth was particularly prominent among those with rice paddies of 20ha or larger. The growth rate for these entities also markedly surpassed that noted in the previous census. Among family management entities, the percentage of incorporated businesses remained low. Nonetheless, a growing number with large rice paddies incorporated over this five-year period.

Conversely, the growth rate and the absolute growth of organized management entities slowed down. Consequently, by 2020, among agricultural management entities with rice paddies ranging between 20ha and 30ha, family management entities outnumbered those operated by organizations.

The momentum in the growth of organized management entities waned, partially due to the decrease in community-based farm cooperatives as some disbanded. Data indicates that the peak number of such cooperatives was 15,136 in 2017, which fell to 14,364 by 2020.

Table 1. Changes in the number of agricultural management entities by size of rice paddies under management (10ha or larger by prefecture)

			10ha or larger (total)	10-20ha	20-30ha	30-50ha	50ha or larger
Family management entities	Number of entities	2010	9,766	7,868	1,345	467	86
		2015	12,812	10,026	1,899	726	161
		2020	16,207	11,811	2,749	1,240	407
	Rate of increase/decrease	2010-2015	31.2%	27.4%	41.2%	55.5%	87.2%
		2015-2020	26.5%	17.8%	44.8%	70.8%	152.8%
	Rate of incorporation	2015	1.6%	0.8%	3.4%	6.7%	9.3%
2020		4.2%	2.2%	6.2%	12.4%	22.1%	
Organized management entities	Number of entities	2010	6,428	2,071	1,761	1,595	1,001
		2015	8,052	2,715	1,984	1,986	1,367
		2020	8,968	2,878	2,158	2,264	1,668
	Rate of increase/decrease	2010-2015	25.3%	31.1%	12.7%	24.5%	36.6%
		2015-2020	11.4%	6.0%	8.8%	14.0%	22.0%
	Rate of incorporation	2015	59.6%	58.6%	59.1%	60.2%	61.4%
2020		75.7%	69.5%	74.5%	79.8%	82.3%	

Source: Based on the reclassification of individual data from the Census of Agriculture and Forestry

Therefore, this study compared the numbers from the 2015 census regarding organized farms and the 2015 survey of community-based farm cooperatives. Panel data on enterprises, whose primary product in terms of sales value was rice (hereafter referred to as “community-based rice-cultivation cooperatives”), was compiled to analyze their trends.

Community-based rice-cultivation cooperatives are increasingly incorporating

Table 2 details the characteristics of community rice-cultivation cooperatives by organizational type. While some cooperatives are incorporated companies, these only made up about 6% of the total in 2020. About half of these incorporated entities were agricultural producers’ cooperative corporations. This percentage increased by nearly seven points over the five years.

Table 2. Characteristics of community-based rice-cultivation cooperatives by organizational type

		Non-incorporated management entities		Agricultural producers’ cooperative corporations		Incorporated companies	
		2015	2020	2015	2020	2015	2020
Community-based rice-cultivation cooperatives (n=4,660 cooperatives)		42.7%	35.1%	48.6%	56.0%	6.1%	6.3%
By farming area:	Urban area	46.8%	37.9%	46.2%	55.3%	5.2%	5.2%
	Flat farming area	49.5%	38.6%	44.5%	54.9%	5.1%	5.3%
	Hilly farming area	35.6%	31.9%	55.4%	58.9%	7.0%	7.7%
	Mountainous farming area	34.2%	30.5%	55.9%	60.1%	8.8%	8.5%
Diversification efforts:	Outdoor grown vegetables	8.1%	5.6%	27.3%	28.2%	32.9%	33.3%
	Vegetables grown in greenhouses	1.1%	0.7%	6.4%	7.7%	14.8%	15.6%
	Processing of farm products	1.0%	2.0%	8.8%	8.4%	22.6%	19.4%
Average age of owner		-	68.3	-	69.5	-	64.7
No successor		-	49.1%	-	41.6%	-	35.0%

Source: Based on individual data from the Census of Agriculture and Forestry (2015 and 2020) and from the survey of community-based farm cooperatives (2015)

Concerning the classification of agricultural areas, non-incorporated management entities are predominantly found in urban and flat farming areas. However, recent data show a significant decline in this percentage, indicating a trend towards incorporation. Meanwhile, entities that diversified (e.g., vegetable production, processing of farm products) had a high incidence of incorporation. No major changes were observed in this context over the five-year span.

In terms of the average age of owners (representatives of organizations) and the availability of successors, older ages were more common in non-incorporated management entities and agricultural producers’ cooperative corporations. Over 40% of all cooperatives lacked successors, highlighting the urgent need for measures to nurture future leaders.

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