Original article

The Logic and State Concerning New Types of Business Organization of Family Agricultural Holdings

—A Comparative Analysis between Japan and Western Countries—

Yoichi Matsuki

Emeritus Professor, Laboratory of Nature Management and AgriFood Economics Nippon Veterinary and Life Science University Tokyo, Japan

Abstract

Family agricultural holdings are the predominant type of agricultural holdings not only in Japan but also around the world. However, the "core principal farmers" have ever been drastically decreasing since the latter half of the 20th century, which directly caused not only the abandonment of arable land but also the collapse of rural communities.

In family holdings, the aging of workers engaging in agriculture and the shortage of successors have been aggravating, which have made to maintain the partnership based on family blood and marriage linkages more and more difficult. Under the circumstances, since various improvements in economic and legal aspects regarding the contract forms among family members have been undertaken, consequently various business types of agricultural holdings different from the traditional types have been formulated.

In this study, it is intended to locate the present situation and future direction of family agricultural holdings of Japan and western countries in the transforming process of business types caused by the structural change of family agriculture commonly observed in the world, in other word, the movement toward the partnership holdings and companies in juridical entities.

Key words: Family Agricultural Holdings, Types of Business Organization, Individual holdings, Partnership Holdings, Company Holdings

Bull. Nippon Vet. Life Sci. Univ., **60**, 79–98, 2011.

Formation of New Business Organization Types of Family Agricultural Holdings

(1) Types of Holdings: Individual Agricultural Holdings, Family Partnership Holdings and Family Companies

Family agricultural holdings are the predominant type of agricultural holdings not only in Japan but also around the world. However, the "core principal farmers" have ever been drastically decreasing since the latter half of the 20th century, which directly caused not only the abandonment of arable land but also the collapse of rural communities.

In family holdings, the aging of workers engaging in agriculture and the shortage of successors have been aggravating, which have made to maintain the partnership based on family blood and marriage linkages

more and more difficult. Under the circumstances, since various improvements in economic and legal aspects regarding the contract forms among family members have been undertaken, consequently various business types of agricultural holdings different from the traditional types have been formulated. In particular, as a result of concluding a partnership contract among family members1) (a family partnership contract), wives and children have been released from the patriarchal ownership and management, and an organization of holdings in which they can participate as the equal partners has been formulated. Furthermore since the ownership and management/labor have been divided, agricultural companies, in which the household chief is the president and other family members are employed as their workers, have been emerging.

While the transformation of business organizational

types of family agricultural holdings is regulated by the production relationship of family members, the transformation is further regulated by such relationships as the ownership and utilization of production means, the management and work division/cooperation of labor, the distribution of profit, the succession of assets and so forth. Types of business organization can be divided into the economic types of business organization categorized according to the states of division and combination of ownership, management and work cooperation, and the states of business concentration types according to the extent of integration of individual enterprises. Moreover there are other types of business organization in term of juridical forms which are regulated by rules and laws concerning the establishment and management of individual organizations/enterprises. While the types of organization/enterprise concentration caused by integration are equally important, hereby an analysis regarding the types of organization/enterprise in terms of economic and legal types of individual agricultural holdings is undertaken.

In this study, it is intended to locate the present situation and future direction of family agricultural holdings of Japan in the transforming process of business types caused by the structural change of family agriculture commonly observed in the world, in other word, the movement toward the partnership holdings and companies in juridical entities.

The first problem, in case of an international comparison among types of agricultural holdings is conducted, is that the types of business organization differ each other caused by the difference in the legal systems of countries. The partnership laws in the western countries do not exist in Japan, even among the western countries the types of business organization vary each other according to the company laws and the Civil Codes.

It is intended that "farms (agricultural holdings)" in the major western countries as well as in Japan be hypothetically classified into five types of business organizations, then comparatively analyzed, and finally to understand the development of new "principal farmers" in the developed countries:

- (i) Individual holdings: refer to agricultural holdings (non-legal entities in juridical terms) solely owned by individuals or one family (i.e. the chief of household);
- (ii) Partnership holdings: refer to agricultural holdings (legal or non-legal entities in juridical terms)

- based on the joint ownership based on personal connection of more than two farmers in which the ownership, management and cooperative work are conducted in an incorporated manner;
- (iii) Company holdings as legal entities: refer to agricultural holdings (legal entities in juridical terms) based on the capital connection, in which the ownership, management and cooperative work are divided;
- (iv) Agricultural cooperative holdings: refer to agricultural holdings based on the cooperative principles; and
- (v) Public legal entity: refer to agricultural holdings (legal entities in juridical terms) with the objectives of public interests, which are established by invested capital of governments and/ or public institutions.

2. The Analytical Methods of Types of Agricultural Holdings in the Course of Reform in the Japanese Agricultural Statistics

As an improvement of agricultural statistics responding to the structural changes of Japanese agriculture is required, a categorization of survey subjects responding to the changes in the "principal farmers" of agricultural production and their clear definitions are particularly important. In other word, it is needed that a definition and categorization of agricultural holdings different from the conventional statistical system that solely emphasized agricultural households, and then in utilizing such a revised statistical information, the situation of agricultural structure is more accurately understood so that the agricultural policies instrumental to promote agricultural producers, agricultural production and multi-functions of agriculture can be carried out.

(1) Reform Toward a Statistics of Agricultural Holdings in the Background of the Structural Changes of Family Agricultural Holdings

In the World Agricultural Census conducted by FAO, apart from the conventional direction that mainly targets the agricultural households as an economic unit of agriculture, the Census tends to distinguish the agricultural holdings comprising of households from those of non-households, the latter being made of companies and public institutions. While most of agricultural holdings are households, in noticing their structural changes, the agricultural holdings are defined as follows: "Agricultural holdings are economic entities which solely manage/control the whole or part of

reared livestock and utilizing land for the purpose of agricultural production, whatever their ownership titles, types of business organization in legal terms or the sizes of holdings are. Management of individual holdings are carried out by persons or households, by more than two persons or households, by relatives or clans, or by juridical entities such as companies, cooperatives or administrative institutions. In some cases, land of households may be in a single plot or divided into multiple plots within the country, or in some other cases it may spread over national frontiers and administrative boundaries, and in the latter cases, production means such as labor, facilities, machineries and draft animals are jointly utilized2." Furthermore the System of National Accounts (SNA), which is internationally conducted in order to understand a national economy and products of individual countries, defines two economic productive units. They include "enterprises" and "establishments": While the former refers to the economic units which engage in more than one economic activity at more than one location under single management, the latter refers to an enterprise or branches of an enterprise located in a certain place. When an enterprise manages both a crop producing farm and a processing plant of agricultural products, it is regarded as two enterprises. In the Agricultural Census of Japan, the SNA of such an enterprise is regarded as an economic unit equivalent to an establishment.

(2) Recent Reform in the Agricultural Statistics of Japan: From the Survey of Agricultural Holdings to the Survey of Agricultural and Forestry Holdings

In the agricultural statistics of Japan, the survey of agricultural establishments (agricultural households plus non-household establishments) had been carried out from 1950 to 1985, then as the major changes, from 1990 onward agricultural services holdings have been added to the notion, then in introducing a conception of "self-employed agriculture", the holdings with agricultural work commission were added to the agricultural holdings, which had been applied until the 2000 Census. Starting in the 2005 Census, the following fundamental changes have been implemented:

- (i) In integrating the Forestry Census into the former Agricultural Census, the Census of Agricultural and Forestry is held every five years;
- (ii) Implementation of the Survey on Agricultural and Forestry Holdings;
- (iii) The survey system is arranged so as to hori-

- zontally and integrally cover the various "principal farmers" such as individuals, organizations, juridical entities and so forth; and
- (iv) "The Survey on Agricultural and Forestry Holdings" was created, in integrating three surveys on agriculture(i.e., the Survey on Agricultural Holdings, the Survey on Agricultural Holdings Other Than Farm Households and the Survey on Agricultural Services Establishments) and similarly three surveys on forestry (i.e., the Survey on Forestry Households, the Survey on Forestry Holdings Other Than Forestry Households, and the Survey on Forestry Services Enterprises)³⁾;

Together with the arrangements of statistics so as to systematically classify the holdings taking the form of establishments, the extent of management/operational activities covered by these holdings was changed in the framework of "the change in survey items" "so as to systematically understand various types of holdings from the viewpoints of management/operation (i.e., the distinction between individuals and organization holdings, and the distinction among that solely engaging in agricultural production, that engaging both in agricultural production and agricultural services, and that solely engaging in agricultural services and others), the appropriate survey items were created". Thus at the first time in the Census, the categories of "establishments" and "holdings" were distinguished, hence it could provide the unified statistical information instrumental to analyze the agricultural structure in relation to these two categories.

(3) Categorization of Agricultural Holdings According to the Theories of Business Organizational Types, and Examining Their Compatibility with Statistical Terms

The term "agricultural holdings", which the Agricultural Census has been using since 2005, is defined as "those engaging in the production of agricultural or forestry products, or are commissioned to conduct agricultural and forestry work in one of the scales as below, with regard to the area or livestock numbers for the purpose of production or work", thus the external standards according to management/operations are stipulated:

- (i) Agriculture with sizes of cultivated land over 30 ares under management;
- (ii) Agriculture with sizes over the external standards as follows with regard to planted areas or growing areas of agricultural products, feeding

numbers or shipping numbers of livestock, or other businesses:

- Planted land area for vegetables in fields: 15
- Planted land area for vegetables in facilities : 350 square meters
- Planted land area for fruit orchard: 10 ares
- Planted land area for flowers and/or ornamental plants in fields: 10 ares
- Planted land area for flowers and/or ornamental plants in facilities: 250 square meters
- · Number of milking cows; 1 cow
- · Number of fattening cattle: 1 cattle
- · Number of fattening pigs: 15 animals
- · Number of laying hens: 150 hens;
- Number of broiler chickens shipped in one year: 1,000 chicken
- Others with total sales value : \$500,000 of agricultural products in the year prior to the survey date

(iii) Contract business for agricultural work;

Statistical figures of agricultural holdings in the 2005 Census succeeded the same definitionas the 2000 Census, i.e., "the total of agricultural commercial households, establishments other than agricultural household and agricultural services establishments".

Regarding the conception of agricultural holdings, it is noticed that at the first place they are divided in two large groups into "family holdings" and "corporation holdings" according to the difference in economic, social and legal characteristics of management entities (i.e. the "holders" in the western terms). Furthermore family agricultural holdings in which "those manage in units of one household" are divided into legal entities and non-legal entities, and the latter, i.e., those operated by families among non-legal entities are perceived as an independent terms named "individual holdings" (those conducting the business in the unit of one household, excluding those corporations consisting of one household). Secondly on the basis of the presence or nonpresence of "business in the unit of one household", as the "types of business organizations" (those not conducting business in the unit of one household), other types of agricultural holdings in the following categories were created: "agricultural producers' cooperative corporations; joint stock companies; incorporated companies; unlimited and limited partnership; mutual insurance companies, agricultural cooperatives, forestry owners' associations; other organizations and associations (i.e., agricultural mutual insurance associations, contract forestry associations for National Forest management, forestry study groups, public forestry corporations); other legal entities (i.e., incorporated foundations, incorporated associations, religious corporations, medical corporations and so forth), local public institutions and property wards.

Prior to "the types of organizations" as the tool of categorization of agricultural holdings in terms of management entities, the 1990 Census classified agricultural services establishments according to their management entities (those which plans the projects and implement the business) into "farmers groups, national and local public organizations, agricultural cooperatives, companies and others", then in the 1995 and 2000 Censuses, they are classified according to the types of organizations into "agricultural producers' cooperative corporations, companies, agricultural cooperatives, other agricultural groups, other legal entities (incorporated foundations and incorporated associations), voluntary associations and others (individual traders). Afterward since 2005, agricultural holdings have been classified into 11 types of organizations as follows: agricultural producers' cooperative corporations, joint stock companies, unlimited/limited partnerships, mutual companies, agricultural cooperatives, forestry owners' associations, other various organizations (agricultural mutual aid associations, contract forestry associations for National Forest management, forestry study groups and forestry public corporations), and other legal entities (incorporated associations/foundations, religious legal entities, medical legal entities and so forth), local public institutions/ property wards, and individual holdings, as such it is noticed that individual holdings are included at the end. Such individual holdings are nothing but "the agricultural households" which have been the major survey subjects in the past statistics.

Moreover, in order to understand the actual situation of "the transformation toward legal entities", which is one of the important aims for understanding the types of organizations (in their juridical status), "the agricultural holdings in legal entities" are defined as "those conducting business in the form of legal entities", and integrated into "the family agricultural holdings in the form of one legal entity as the unit of household <u>including</u> agricultural holdings in legal entity".

As hereby explained, the Agricultural Census of Japan has been readily arranged for understanding the developments of agricultural holdings by types of business organization, as intended by this study. In the next section, it is conducted to analyze the business organizational types of agricultural holdings, in using the 2005 and 2010 Censuses.

3. Transformation of Business Organizational Types of Family Agricultural Holdings in Japan

(1) Categorization of Business Organizational Types of Agricultural Holdings in the Census of Agriculture and Forestry

Earlier in this study, concerning the business organizational types in the framework of economic organizational types of agricultural holdings, they are divided into five categories, and the following descriptions present the economic definition of each business organizational type and their positioning in the Agricultural and Forestry Census:

- (i) Individual holdings: agricultural holdings solely owned by individuals or one unit of households (the juridical status being non-legal entities). They correspond to "individual holdings" in the Agricultural Census. They are, among the agricultural holdings, those conducting business in a unit of one household (excluding one juridical entity of one household, equivalent to non-juridical family holdings). In the 2010 Census, they amounted to 1,643,518;
- (ii) Partnership holdings: Based on the joint ownership consisting of more than two farmers in personal connection, the holdings integrally undertake the ownership, management, and joint work in making a contract with the members, and distribute the benefit among them (the juridical status being legal or non-legal entities). They correspond to "agricultural producers' cooperative corporations" and "agricultural organizational holdings (i.e., "non-legal holdings" excluding "individual holdings") in the Agricultural Census). In the 2010 Census, they amounted to 17,651;
- (iii) Company holdings: agricultural holdings in which ownership, management and partnership work are specialized, and based on the capital connection (the juridical status being legal entities).
 - They correspond to "companies". In the 2010 Census, the item of "unlimited/limited partnership companies" includes "joint companies". They amounted to 17,651;
- (iv) Cooperative holdings : agricultural holdings based on the cooperative principles (the juridi-

- cal status being legal or non-legal entities). In the Agricultural Census, they correspond to "other cooperatives and associations" (agricultural cooperatives, forestry owners' associations, other cooperatives and associations). In the 2010 Census, they amounted to 4,069; and
- (v) Holdings of public juridical entities: agricultural holdings for the purpose of public interests, and based on the invested capital from governments and/or public institutions (the juridical status being legal entities).
 - In the Agricultural Census, they correspond to "local public entities/property wards" and "other legal entities (legal entities other than agricultural producers' cooperative corporations, companies and other associations) such as public juridical entities (incorporated foundations, incorporated associations, religious corporations, medical corporations). In the 2010 Census, they amounted to 862.

(2) Developments of Business Organizational Types of Agricultural Holdings

Since the latter half of the 1990's, the annual decreasing rate of agricultural households has exceeded over 2%, which has further strengthened during 2005~2010, particularly commercial households, which reduced by 60% of total agricultural households, decreased at an annual rate of 3.4% the highest ever, and resulted in 1,630,000 households in 2010. Agricultural holdings, a new statistical category, have shown the similar trend, in which family agricultural holdings decreased by 17% during the five years. On the other hand, since the organizational holdings have increased by 11% and the holdings in juridical entities by 16%, a different trend in the composition of agricultural holdings has been observed. In analyzing such a trend taking place in agricultural holdings from the aspect of establishment types, it is observed that individual holdings made an overwhelming share of 97.9%, followed by 1.1% of joint holdings, 0.8% of company holdings, 0.2% of cooperative holdings and 0.1% of public corporation holdings. However, these business types of individually managed holdings which correspond to the individual agricultural holdings in the Census have shown a considerable decline, while the company management holdings, while they account for a small proportion at present, have increased by 18% as well as the joint holdings by 8%. On the other hand, the cooperatives and the public corporation holdings have considerably decreased.

Table 1. Development of Agricultural Holdings by Types of Business Organization in Japan
(Δ shows a decrease)

		20	05	20	010	Changes 2005~2010			
		Number	Ratio (%)	Number	Ratio (%)	Number	Rate (%)		
Total far	m households (0,000 households)	285	100	253	100	Δ32	Δ11		
In which: Commercial farm households		196	69	163	64	Δ33	Δ17		
	Non-commercial farm households	88	31	90	36	2	2		
Agricult	ural holdings (0,000 households)	200.9	100	167.9	100	∆33.0	Δ16		
	In which: Family holdings	198.1	99	164.8	99	∆33.3	Δ17		
	Organizational holdings	2.8	1	3.1	1	0.3	11		
In which	: Legal entities	1.9	1	2.2	1	0.3	16		
	Business organizational types of total agricultural holdings								
	Individual holdings	1,976,016	98.3	1,643,518	97.9	Δ332,498	Δ17		
	Partnership holdings	16,333	0.8	17,651	1.1	1,318	8		
	Company holdings	10,982	0.6	12,984	0.8	2,002	18		
tion	Cooperative holdings	5,053	0.3	4,069	0.2	Δ984	Δ19		
Organization	Public legal entities	996	0.1	862	0.1	Δ134	Δ13		
Org	Total	2,009,380	100.0	1,679,084	100.0	∆330,296	Δ16		
ess	Business org	anizational type	s of total family	agricultural ho	ldings (commerc	cial farm housel	nolds)		
Business	Individual holdings	1,958,183	99.73	1,626,677	99.72	∆331,506	Δ17		
of I	Family partnership holdings	566	0.03	476	0.03	Δ90	Δ16		
es	Family company holdings	4,675	0.24	4,053	0.25	△622	Δ13		
Types	In which: Incorporated companies	4,503	0.23	Ţ					
	In which: Joint stock companies	148	0.01	3,958	0.24	△693	△15		
	In which: Unlimited/limitedpartnership companies	24	0.00	95	0.01	71	296		
	Total (Total commercial households)	1,963,424	100.00	1,631,206	100.00	△332,218	△17		
	In which: those in legal entities	5,241	0.27	4,529	0.28	△712	△14		
	Those in non-legal entities	1,958,183	99.73	,1,626,677	99.72	△331,506	△17		

Sources: Ministry of Agriculture, Forestry and Fisheries, the 2005 Census of Agriculture and Forestry Census and the 2010 Census of Agriculture and Forestry.

Regarding the business organizational types of family agricultural holdings, individual holding account for 99.72%, most of which are "agricultural holdings solely owned by individuals or one unit of households" as non-legal entities. While family company holdings have increased in the 1990's, both incorporated companies and joint stock companies had considerably decreased for the five year period from 2005 to 2010. This phenomenon may be partially affected by the abolishment of the Act of Incorporated Companies and the amendment of the Act of Companies, and unlimited/limited

partnership companies including consolidated companies have increased by three times, yet as a whole company holdings have been in a decreasing trend. Among the entire agricultural holdings, family companies, which are in an increasing trend, accounted for 12,984 in 2010, in which family company holdings accounted for 476, as low as 3%. In a same vein, while partnership holdings accounted for 17,651 within the total agricultural holdings, family partnership holdings are only 476, or 3%. As such, it is considered that the trend toward company and partnership holdings

has developed, likely affected by different "principal farmers" from those for family holdings of farm households.

As discussed in a later part of this study, in Europe and U.S., the partnership holdings are recognized as legal entities according to the Act of Partnership, hence in these countries the relating public statistics is readily available to understand the actual situation. In case of Japan, however, while efforts have been made to improve the economic relationships among family members such as the campaign for concluding family agreements, at present they have not stepped into such fundamental issues as the joint ownership among family members, it can be concluded that internal conditions for developing the family joint partnership have not yet fully matured.

(3) Structure of Work Cooperation in Family Agricultural Holdings—Analysis by Types of Agricultural Full-Time Workers

When one analyzes family agricultural holdings, which account for an overwhelming share among various types of agricultural business organizations, from the aspect of work cooperation among family full-time workers and their family members (i.e. the working patterns), a different holding structure can be observed (Table 2).

It is considered that depending on the patterns of full-time workers engaging in agriculture more than 150 days a year, different development processes and their management issues emerge, which would provide the essential information for examining a flexibility of work cooperation and a possibility of building work partnership in family holdings in future.

When one categorizes the family agricultural holdings from the aspects of full-time workers within a holding, the following five types of holdings would be available:

- (i) Family holdings without full-time workers: corresponding to the commercial farm households with "no full-time worker" in the Census;
- (ii) Aged full-time worker holdings: corresponding to the commercial farm households "with full-time workers over 65 years old" in the Census;
- (iii) Female full-time workers holdings: corresponding to the farm households "with female fulltime workers only" in the Census;
- (iv) Family holdings with full-time workers: corresponding to the farm households "with full-time workers less than 65 years old" in the Census; and
- (v) Family holdings with employed workers: corresponding to the farm households with "employed agricultural full-time workers" in the Census

At the time of 2010, "family holdings without fulltime workers" with no full-time worker accounted for

Table 2. Categories and Changes of Family Agricultural Holdings: 1995∼2010

Unit: 1000 households

		1	995	2	000	20	005	2	010		Chan	ge	
		No.	ratio(%)	No.	ratio(%)	No.	ratio(%)	No.	ratio(%)	2000/1995	2005/2000	2010/2005	2010/1995
ıgs	Family holdings without	1,554		1,305		1,030		777					
ldi	full-time workers		(55%)		(52%)		(49%)		(45%)	$\triangle 16\%$	riangle 21%	riangle 25%	$\triangle 50\%$
Agricultural Holdings	Aged full-time workers	300		392		415		399					
ura	holdings		(11%)		(16%)		(20%)		(23%)	+31%	+6%	$\triangle 4\%$	+33%
cult	Female full-time workers	186		169		133		100					
Agri	holdings		(7%)		(7%)		(6%)		(6%)	△9%	riangle 21%	riangle 25%	$\triangle 46\%$
	Family holdings with full-time	798		640		518		455					
of Family	workers		(28%)		(26%)		(25%)		(26%)	$\triangle 20\%$	△19%	$\triangle 12\%$	$\triangle 43\%$
	Total	2,838		2,506	;	2,096		1,731					
ries			(100%)		(100%)		(100%)		(100%)	$\triangle 12\%$	$\triangle 16\%$	$\triangle 17\%$	△39%
Categories	Family holdings with	18		24		21		32					
Ca	employed workers		(1%)		(1%)		(1%)		(2%)	+33%	$\triangle 12\%$	+52%	+78%

Notes: "Family holdings without full-time workers" correspond to the commercial farm households with "no full-time worker" in the Census;

[&]quot;Aged full-time workers holdings" correspond to the commercial farm households "with full-time workers over 65 years old";

[&]quot;Female full-time workers holdings" correspond to the commercial farm households with "female full-time workers only";

[&]quot;Family holdings with full-time workers" correspond to commercial farm households "with full-time workers less than 65 years old";

[&]quot;Family holdings with employed workers" correspond to the commercial farm households with "employed agricultural full-time workers", being included in one of the above four categories; and

[&]quot;Total" is the sum of the above four categories except those with employed agricultural full-time workers, and aged full-time workers holdings overlap with the aged workers holdings within the female full-time workers holdings.

777,000, or 44% of the total holdings, the highest share of the whole. Regarding the family agricultural holdings with full-time workers, "family holdings with full-time workers" of 65 years old and less accounted for 455,000, or 26% of the all holdings, "aged full-time worker holdings" with full-time workers over 65 years old accounted for 399,000 or 23%, and "female full-time workers holdings" with sole female full-time workers accounted for 100,000 or as low as 6%.

As such, agricultural holdings with "the principal farmers" who engage in agriculture for at least 150 days or more a year are nearly halved into those with full-time workers and those with aged full-time workers. Moreover, while the former decreased by 43% for the period of 15 years from 1995 to 2010, the latter increased by 33% in the same period. This picture suggests that when one draws the future prospect of family agricultural holdings in Japan, not only the model of "certified farmers" which agricultural policy makers target but also the potential energy of the agricultural holdings with aged full-time workers (i.e. its sustainability and reproductive capacity of aged successors) should be duly recognized as another model.

Although the both categories of family holdings with employed workers and with aged full-time workers are in an increasing trend, the former is still at a minimal with the share of 2% of total holdings, but increased by 1.8 times for 15 years from 1995 to 2010 and now account for 32,000 holdings. The holdings with full-time workers are assumed to take the type of family company holdings. While the transfer mechanism among the categories of family holdings with full-time workers is still to be explained, it is considered that in so-called "absentee holdings", the cases in which the family members retired from other industries to the holdings with aged full-time workers are relatively popular, and as the aging of present full-time workers, a transit from the holdings with full-time workers would proceed at the same time.

From the aspect of income earning capacity by categories of holdings with full-time workers 4 , a majority of the "agricultural holdings without full-time workers" sells less than \$500,000 of agricultural products, therefore their agricultural income is a mere several percentage of the total income of holdings. On the other hand, in the holdings with aged full-time workers, as the number of holdings earning less than \$500,000 is small, many holdings distribute in the range between \$500,000 and \$5,000,000, even not a small

number is found in the income stratus of more than \(\frac{\text{\$\text{\$\text{\$\text{\$}}}}{10,000,000}.} \) It suggests that some holdings with aged agricultural workers have a high motivation and capacity to agricultural activities and management. In respect of female full-time workers holdings, in terms of the average sales many holdings are recognized as self-sustainable, while their total household income exceeds that of agricultural holdings with full-time workers in less than 65 years old. It suggests a high contribution of female to household income, and at the same time it reveals the development of self-sustainable female holdings as well as capable female managers.

4. Transformation of Business Organizational Types of Family Agricultural Holdings in the Western Countries

The agricultural statistical terms widely used in the western countries are "farms" and "agricultural holdings".

A "farm" generally named in EU is the basic production unit of agriculture, used as the combined terminology including such various contents as the economic, social and geographical meaning, also as a synonymous of agricultural holding. On the other hand, in many member counties, the conception of agricultural holdings is defined as "a unit of agricultural production under a single management" and in comparison with "a farm", the aspects of ownership/utilization relationship is more emphasized, yet there are differences in the conception among counties, for example in Ireland an agricultural holding is considered as the unit of land ownership, and in U.K. as the unit of land possession⁵⁾. In the Farm Structure Survey (FSS) of EU stated later, while a "farm" is used in the title of the survey itself, the actual statistical terminology is an agricultural holding.

Compared with these obscure terminology in EU, the conception of "farm" in U.S. is consistently defined as "an agricultural operational place where sells agricultural products with more than US\$1,000 a year".

In any case, in the western countries, efforts have been made to understand the change in agricultural structure by means of statistical analysis of the principal farmers. In other word, as the method for understanding the change in holding structure of farms, i.e., agricultural holdings, the categorization of holders in social, economical and legal nature is the main stream of the study.

According to the FSS of EU, a holder is defined as $follows^{6)}$: "a natural person, a group of natural persons

or legal persons, who manage a holding under one's own responsibility and title. As the holder bears the legal and economic responsibility, he/she takes the economic risks of holding that he/she owns. The holder is in such cases that he/she fully owns the holding (i.e., an owner who has the registered title of fixed assets like land), rents the land, is a usufructuary or a beneficiary. In case that the owner is not the same person as the manager (who is a natural person who engages in daily financial tasks and productive activities of the holding), he/she commissions the managerial work to such as other family, spouse, or the third person. Yet in most cases, an individual holder is the same person as the manager. Moreover in case of group holding and company holding, the institution is the owner and at the same time is managed by joint managers (or joint the institutions) or hired managers".

(1) Transformation of Holding Types of Agricultural Holdings in EU

 Classification of Types of Enterprise According to the Farm Structure Survey of EU

EU, pursuant to the Revised Statistics Act of 1988, the Farm Structure Surveys of EU (FSS) were implemented in 1993, 1995, 1997, 2003, 2005 and 2007 respectively, which actually took the role of the mid-term censuses of the 1990, 2000 and 2010 Agriculture Censuses (the forthcoming surveys will be implemented in 2013 and 2016). An agricultural holding as defined in FSS is: "a unit entity technically as well as economically, and an institutional entity which has a single management organization, and carries out agricultural

activities"7).

Subjects of the Farm Structural Survey should have the minimum size of 1 ESU8), but some membercountries include those holdings with less than the above minimum size. Due to the diversity of agriculture among the member countries affected by crops, production facilities, types of livestock husbandry, kinds of livestock and so forth, it is difficult to uniformly determine the minimum size subject to the survey, thus it is decided so as to cover the farms producing more than 99% of the total Standard Gross Margin (SGM)⁹⁾ of each country. Moreover the survey thresholds of selection standard of the above holdings in member countries relatively vary each other: while many countries set the threshold as 1 hectare of arable land, Germany specifically sets as more than 2 hectares, Denmark more than 5 hectares, and some countries determine the threshold in detail according to the cropping patterns while others do not. In additions, it is pointed out that due to the difference in the management system and timing of the survey, the aggregation and comparative analysis of the statistics of the member counties have a certain limit, and efforts for improvement have been repeatedly made.

The types by enterprise of agricultural holdings in EU are divided into the following three types in terms of the legal personality of the holdings according to FSS. The legal personality of particular agricultural holding is categorized according to the social status of the holder, i.e., the managers, in other word, whether the holder is a natural person or a legal entity:

Table 3. Legal personality of the agricultural holdings by main EU countries

Types	Sole holdings (%)	Legal entities (%)	Group holdings		
EU countries	countries		(%)		
EU27members	95.9 (96.2 in 2005)	3.2 (3.0 in 2005)	1.0 (0.9 in 2005)		
UK	94.7	5.3	0.0		
Netherlands	93.0	5.2	1.8		
France	70.9	20.2	8.9		
Germany	93.2	1.4	5.3		
Belgium	92.0	8.0	0.0		
Sweden	92.3	7.7	0.0		
Spain	94.5	5.5	0.0		
Portugal	96.7	3.3	0.0		
Italy	98.9	1.1	0.0		
Greece	99.9	0.1	0.0		
Ireland	99.9	0.1	0.0		

Source: EU Farm Structure Survey 2007

- (i) "Sole holding": a holding by the individual holder who is a natural person and owns an independent holding, i.e., a sole holder (who is at the same time the manager and makes decisions by himself);
- (ii) "Group holding": a holding by partnership managers of more than one natural person. (The holding is owned, rented or managed in partnership by more than one natural person. In some cases, it is jointly managed like one holding by multiple sole holdings. Such a partnership holding is based on laws and contract documents); and
- (iii) "Legal entity like company and others": a legal entity other than natural person, and possess the same rights and responsibilities as individuals, for instance they can become either a plaintiff or a defendant. This type includes companies, joint enterprises, governments, local municipalities, churches and other institutions.
- 2) Characteristics of Agricultural Structure of EU and Types of Agricultural Enterprises

From 2005 to 2007 the number of total agricultural holdings of 27 member countries decreased from 7,822,700 to 7,310,800 by about 510,000 or 7%. The average size (in the areas of cultivated land or under cultivation) of holdings in 2007 was 22.0 hectares, in which those less than 5 hectares accounted for 48%, 5 to less than 20 hectares for 32%, above 20 hectares for 32%, thus those less than 20 hectares accounted for about 80% of total, while those exceeding 20 hectares were increasing, even those over 100 hectares reached at the 4% level.

Looking into the picture of the enterprise types of holdings in EU as shown in Table 3, in the 27 member countries of EU as a whole, the individual holdings accounted for 95.6% of agricultural holdings. While the company juridical entities accounted for 3.2%, and the group holdings for 1.0%, both categories altogether, despite their small share of total, are increasing while individual holdings are in a declining trend. Moreover looking into the main member countries, as typically shown in Greece, Ireland (both being 99.9% of total) and Italy 98.9%, most of holdings are individual holdings. On the contrary, in France the shares of individual holdings, company holdings in juridical entities and group holdings respectively account for 70.9%, 20.2% and 8.9%, which shows a relatively declining share of individual holdings, instead a development "toward the types of company and group holdings". Such a process toward the company juridical entities is steadily increasing in Belgium, Sweden, Spain, U.K., the Netherlands and Portugal in spite of the current share being at the one digit level. Group holdings are predominant in France, followed by in Germany (5.3%) and the Netherlands (1.8%), which are at a higher level than in other main countries. The high ratio in Germany is affected by the socialistic enterprise types existed during the period of former East Germany, and that in the Netherlands is affected by many partnership holdings consisting of parents and children.

In order to look into the difference in agricultural structure in the member countries, as the typical cases, the transformation of enterprise types of agricultural holdings in U.K., the Netherlands and France is analyzed in the following sections.

The average economic size in terms of ESU units in EU as a whole is 20.5, and by types of holdings family farms is 15.2, legal entities 144.1, nearly ten times of that of the family farms, and other types, i.e., group farms also as large as 111.6¹⁰⁾. Among 27 member countries, the country with the largest average economic seize units is the Netherlands, being 111.3, more than five times of the average of entire EU, and even the size of family farms is 93.8, six times of the corresponding category of the average EU, and similarly legal entities being 390.2 and group farms being 188.9. As such the size of legal entities is nearly four times of the size of family farms. On the other hand, the average size of arable land in the Netherlands is 25 hectares, at the level close to the average size of entire EU, nevertheless such a high ESU size of the country implies that the country has an intensive agricultural structure with the emphasis on horticulture in facilities and livestock industry depending on imported concentrating feedstuff. The average size of arable land of France amounts to 55.7 hectares, nearly two times of that of the Netherlands, while in ESU, the whole average 57.5 in which family farms 32.5, company holdings in legal entity 118.2 and group farms 118.5 respectively, such a situation demonstrates a size expansion in groups farms. In other word, company legal holdings as well as group farms achieve an economic size of nearly four times of family farms.

The country with the largest average size of arable land, except the former East European countries like the Czech, is U.K. Its size is 80.3 hectares, in which the class of more than 100 hectares has the largest share of 21%, indicating the increasing trend of large sized farms. Its average size in terms of economic unit amounts to ESU 76.1, 30% lower than the Netherlands,

yet stands at the third position following Denmark. By types of enterprises, the ESUs of family farms, company legal entities and group farms are respectively 61.2, 258.7 and 149.6, thus legal entities of company type have the largest economic size with about 4 times of family farms and 17 times of groups farms.

(2) The Transformation of the Types of Agricultural Enterprise in U.K.

According to the Census held in June 2010 in U.K., there was a total of 18,003,000 hectares of arable land, in which 1,700,100 hectares are utilized as agricultural holdings and 1,200,000 hectares as community pastures. Regarding the arable land, 35% is used as upland field for cereals like wheat, meadows, fallow land and so forth. Regarding livestock, there were 18 million milking cattle (in which 17 million beef cattle), 31 million sheep, 4.5 million pigs and 47 million laying hens.

There are 222,400 agricultural holdings, which decreased by 10% for five years since 2005. Looking into the change in the number of agricultural holdings, they were 448,000 in 1950, afterward decreased by 180,000 or 18% for the following 20 years, amounted to 268,000 in 1970, which is meant that while the declining trend has somewhat slowed down afterward, they halved for 60 years. Number of holders amounted to 283,400 with the average age of 58 years old, and those above 65 years old accounted for nearly a half of the entire holders, and female holders 14%.

Although there are few studies on the types of agri-

cultural enterprise, according to a study paper of statistical analysis regarding the England in 196911, individual holdings accounted for 67% of the total, followed by 27% of group holdings, then company holding in legal entity 4%, and public legal holdings 1%. In terms of farm size, in the small sized class of $2\sim20$ hectares, the proportion of individual holdings is high, and the share of group holdings rises as the holding sizes increase. The share of company holdings in legal entity is as high as 17% in the largest sized class of over 121 hectares. Since the beginning of the 1990's, the transformation of enterprise types of farms has further advanced, and it is estimated that the ratio of group partnership holdings and company holdings in legal entity increased to 40% and 8% respectively, while individual holdings decreased to 50%¹²⁾.

The enterprise types of agricultural holdings in U.K. are categorized into sole proprietorship, partnership, private company corporations, cooperatives and public companies/institutions. In contrast the enterprise types recognized in the Farm Structure Survey (FSS) of EU include three types: individual holdings, group holdings, legal entities (limited companies and institutions). Table 4 shows the statistical figures indicating the enterprise types in U.K. in terms of FSS of EU, in which the group partnership holdings among family members as stated earlier are included in the category that "the sole holder's holdings" yet "the holders are not the managers". For this reason, the number of group hold-

Table 4. Structural Changes of Agricultural Holdings by Types of Business Organization in U.K.: 1993~2007

Types						"Sole	holder's" h	oldings			Others: li	
Турсь	To	otal	Holder is	manager			Holder i	s not mana	holdings	(c)		
Year					Manager is spouse of holder		Manager is other member of holder's family		Manager is not a member of holder's family			
	Number	ratio(%)	Number	ratio(%)	Number	ratio(%)	Number	ratio(%)	Number	ratio(%)	Number	ratio(%)
1993	243,468	(100.0%)	201,223	(82.7%)	8,610	(3.5%)	12,383	(5.1%)	5,933	(2.4%)	15,319	(6.3%)
1995	234,500	(100.0%)	197,419	(84.2%)	7,774	(3.3%)	11,797	(5.1%)	7,952	(3.4%)	9,558	(4.1%)
1997	233,148	(100.0%)	199,072	(85.4%)	6,617	(2.8%)	9,810	(4.2%)	7,371	(3.2%)	10,278	(4.4%)
2000	234,926	(100.0%)	199,972	(85.1%)	11,554	(4.9%)	8,327	(3.5%)	4,048	(1.7%)	11,025	(4.7%)
2003 (a)	226,991	(100.0%)	195,864	(86.3%)	9,239	(4.1%)	8,327	(3.7%)	4,171	(1.8%)	9,390	(4.1%)
2003 (b)	280,626	(100.0%)	243,993	(87.0%)	13,140	(4.7%)	8,843	(3.2%)	4,550	(1.6%)	10,100	(3.6%)
2005	286,747	(100.0%)	244,471	(85.3%)	15,127	(5.3%)	10,112	(3.5%)	4,334	(1.5%)	12,703	(4.4%)
2007	299,820	(100.0%)	251,388	(83.9%)	16,702	(5.6%)	9,691	(3.2%)	5,611	(1.9%)	16,428	(5.5%)

Source: Structure of Agricultural Holdings in the United Kingdom. Charles Elan and Kathleen Herbohn (2011), "Implementing Fair Value Accounting in the Agricultural Sector, The Institute of Chartered Accountants of Scotland.

Notes: (a) In England and Wales, data for 1990 to 2000 are for main holdings only. In 2001, there was a change in the farm register meaning there was no longer a distinction made between main and minor holdings. This estimate for 2003 excludes an estimate for English and Welsh minor holdings to produce comparable data with earlier years.

(b) Includes data for all holdings in England and Wales.

(c) Limited companies and institutions are deemed to be run by a manager and not a holder. Details on group holdings were required separately in 2000 but proved difficult to accurately collect

(d) These figures are sourced from the EU Farm Structure Survey (1993 to 2007). This survey runs 4 times per decade, with the next one in 2010. Data from this survey is still being collected and results will not be published until late 2011. A publication date will appear on the statistics part of the Defra web site closer to the time of publication.

ings in 2007 became none, while the ratio of "individual holdings" was 94.7%, and "company holdings and others" was 5.5% which include public companies/institutions. In the actual situation, however, such holdings as "the holders are not the managers but the families" should be recognized as the group partnership holdings. According to the outcome of a study of laying hen farms¹³⁾, the shares are respectively: individual holdings 36%, group holdings of family partnership 36%, the general group partnership holdings 3%, company holdings 23%, and other public holdings 2%. It demonstrates a large share of group partnership holdings among various types of enterprise. From the above observations, it can be concluded that the family managed farms in U.K., in the course of the declining farm numbers, have been directing from individual holdings toward the direction of group holdings and company legal entity.

(3) The Transformation of Agricultural Enterprises in the Netherlands

The total number of agricultural holdings (those above the size of 1 ESU) in the Netherlands amounted to 76,700 in 2007, while in 1950 in the total number of about 410,000, there were many small-sized holdings as shown in the ratios of full-time holdings being 59% and part-time holdings was 41%. During a half century afterwards, as a drastic hierarchical decomposition as well as an abandonment of farms took place, by year 2000 the number of agricultural holdings decreased to the level of 100,000 by a reduction of 300,000 holdings,

consequently most of the continuing holdings became the full-time farmers. In the 21st century, the annual declining rate has been at the level of 3%, higher than 2% registered for the previous decade.

In the Netherlands, family farms are treated in the same way as in other industries in terms of enterprise types, regarded as individual holdings (the holdings owned by a single person, and have no certified partnership contract), thus most of them become individual holdings. In the FSS statistics of EU explained earlier, 93% of them are considered to be individual holdings. However in the Netherlands, the partnership of Maatshap type, which is one of the voluntary associations, is included in a group holding together with a company association and recognized partnership and many farms classified as individual holdings are those corresponding to the Maatshap group holdings. A majority of holdings with successors are in fact the group holdings of Maatshap-type partnership not yet legally recognized, i.e., individual holdings in terms of statistics, where the successor is the part owner of farm capital, receives the profit distribution, and concludes a management agreement by which he/she is entitled to buy the farm in case the present farm owner retires. On the other hand, such farms as unlimited partnership (VOF) similar to the Japanese-type unlimited partnership company ("gomei-kaisha"), and limited partnership (BV) or limited partnership (CV) both similar to the Japanesetype limited partnership company ("goshi-kaisha") have been increasing. The partnership closely relates to

Table 5. Changes in the shares of Agricultural Holdings by Types of Business Organization in the Netherlands: 1993~2005

	No. of holdings	Non·lega	l entities	Legal entities					
Types	(Change %)	Single owner	Partnership	Partnership	Private limited	Public limited			
Year				firm	company	company			
1993	117,417 (100%)	74.4%	23.5%	1.3%	0.8%	0%			
1994	113,709	71.9	25.8	1.4	0.9	0			
1995	110,811	70.5	27.0	1.6	0.9	0			
1996	108,062	69.0	28.5	1.6	0.9	0			
1997	105,273	67.6	29.5	1.8	1.0	0			
1998	101,870	65.5	31.5	2.0	1.0	0			
1999	98,280	63.8	32.8	2.3	1.1	0			
2000	94,427 (80%)	63.1	32.9	2.6	1.3	0			
2000	102,430 (100%)	79.1	5.3	9.5	6.1	0.01			
2001	98,235	79.5	4.9	9.3	6.3	0.01			
2002	96,470	78.2	4.7	10.3	6.8	0.01			
2003	93,163	77.4	4.6	1.08	7.2	0.01			
2004	90,440 (88%)	77.5	4.5	10.8	7.2	0.01			

Source:

⁽a) R. Jongeneel and L.H.G.Slangen "Explaining the Changing Institutional Organisation of Dutch Farms",

Paper prepared for presentation at the 94th EAAE Seminar 'From Households to Firms with Independent Legal Status', Ashford (UK), 9·10 April 2005, quoted from Table 1: Farm types in Dutch agriculture.

⁽b) Table 5 is divided into two parts, because of the different information sources that were used. For the years 1993-2000 an estimation of the number of organization modes was used, because of the incompleteness of the available information. From the year 2000 onwards information of Central Bureau of Statistics was available on the number of organization modes in agriculture.

the age of successors, in other word, while few agreement is concluded as the age of successor is under 20 years old, as the age rises the ratio of conclusion also rises, thus 80% of farms have the agreement when the age of successor over 35 years old, Furthermore in the farms with the successor of over 35 years old, the authorized partnership VOF is seen in 31% of farms, which implies that they take group holdings with more company-type organization. It is pointed out that such a trend of development toward the group holdings of enterprise types and company with legal entity are typically observed in the horticulture sector, and strengthens as a farm size expands and its successor's age increases¹⁴).

In the background as explained above, the types of enterprises in the Netherlands can be categorized as below:

- (i) Individual holdings (Personlijkondernemingen);
- (ii) Group holding (Deelgenootschap): unlimited partnership (VOF, VennootschapOnder Firma), limited partnership (CV, CommnaditaireVeenootschap), Maatshappartnership (voluntary partnership);
- (iii) Company holding (firma): limited company (unlisted and limited incorporated company, BV, BeslotenVennootschap), joint stock company (listed limited incorporated company, NV, NaamlozeVeenootschap;
- (iv) Cooperative holdings (Co-peratie); and
- (v) Holding in public legal entity (Overheidsbedrijven).

In the Netherlands as well, studies regarding the types of agricultural enterprises are undertaken in full swing after the beginning of 21st century, and at the Wageningen University a study of analysis of agricultural enterprises for clarifying the actual state of transformation from "family agricultural holdings" to "large factory-style corporations". In the study, enterprise types statistically taken are categorized into the following four types (Table 6):

- (i) Single owner family farm;
- (ii) Family partnership;
- (iii) General partnership VOF and limited partnership;
- (iv) Private limited company; and
- (v) Public limited company as the supplementary subject.

According to the study, before 2000 the ratio of family group holdings were $20\sim30\%$ of total holdings, then after 2000 it is underestimated due to the differ-

ence between statistics, which is reflected to an overestimated ratio of individual holdings. It is partially affected by the fact that the family group holdings of Maatshap-type partnership have statistically been taken as "individual holdings".

In looking into the transformation of enterprise types from 2000 to the present, both individual holdings and family group holdings has been decreasing in terms of actual numbers as well as composition ratio, in contrast general group holdings and company holdings increasing. In 2004, the proportion of individual holdings was 77.5%, family group holding 4.5%, therefore "family agricultural holding in non-legal entity" combined these two types together comprised of 83% of the total holdings. The general group holdings, which combine the limited partnership VO similar to the Japanese unlimited partnership companies and the limited partnership CV similar the Japanese limited partnership companies, increased to 10.8%. This figure represents a transformation of family group holdings to the types of enterprises in socializing through an expanded adoption of other partners than family members and external capital. In combining the two types of group holdings, the ratio stands at 15.3% of the total holdings. Moreover company holdings as well increased to 7.2%, which is assumed to transit from individual holdings and group holdings.

Types of holdings vary by production sectors and by management sizes. For example, in the facility horticulture sector, the share of company holdings in legal entity is generally high and above 1.5 hectares amount to 20%. It is pointed out that according to a sample survey of 1,000 holdings over 3.5 hectares, their share is particularly as high as $40\%^{15}$.

4) Transformation of Types of Agricultural Holdings in France

The conception of agricultural holdings (l'exploitation agricole) in France has been formulated after the feudal tenure system was abolished by the French Revolution, and then from the 19th to 20th centuries in corresponding to the long political battles and social debates, the classification and the establishment of relevant statistics were carried out. Pursuant to the 1804 Civil Code, the principle of supporting owner farmers was established, thus the integration of ownership and management was set as the target. Afterward in the 1929 statistics, the owner farmers and the tenant farmers were distinguished, and an alternation in statistics was made for reflecting the change of the separation between ownership and management. The Vichy

Government during the Second World War, in order to promote family agricultural holdings and to give the legal status to the tenant agricultural system, as the basic unit of statistical surveys, the term "l'exploitation agricole" formally adopted.

After the Second World War after the 1960's, as a model of agricultural enterprises another type of agricultural holdings than the family agricultural holdings was raised, a policy idea that the type of small farms is not an exclusive type of farms, which led the revision of the Civil Code in 1962. Following the change, in order to reorganize the small and medium sized farms and to improve the farm structure, a group farming system named GAEC (Groupement agricole d'exploitation en commune) was organized, and in 1985 an agricultural management company with limited responsibility EARL (Exploitation agricole a responsibilite limite) was established. Since then, under a policy aiming at strengthening to separate farm assets from farm management assets, a private company of agricultural management SCEA (Societe civile d'exploitation agricole) outside the framework of agricultural holdings was also established.

In this section it is intended to analyze the data of statistical surveys, which have been arranged in corresponding to such changes in policies, and to demonstrate the recent transformation of the types of enterprises of agricultural holdings in France.

The agricultural structure in France, often called the

country of small farmers, entered into a period of radical change since the 1950's, accordingly its family agriculture has changed the concept from the traditional peasants (paysan) to family firms¹⁶).

The total number of farms amounted to 2,285,000 in 1955, decreased to 1,553,000 by 730,000 or 32% to the 1970's, further in 1988 decreased to less than a half of 1955. Afterward, during the period of 19 years until 2007, farms decreased at an annual rate of 3.6%, two times of the prior period of 1.7%, finally reached at 507,000 farms, a half of the farms in 1988.

The type of enterprise called "professional agricultural holdings (Exploitations professionnelles)" (the definition is referred to Note 2 of Table 6), which is close to the conception of agricultural holdings with full-time workers in Japan, is shown in Table 6. The number of professional agricultural holdings accounted for 64% of the total agricultural holdings, but their numbers declined from about 610,000 in 1988 to about 330,000 in 2007?, a decrease by 46%.

Individual holdings, the dominant type among the various types of enterprises, accounted for 89% in 1988, and decreased to about 330,000 in 2007 or 59% of the total, a decline by 46% for the period. This ratio stands at the lowest among the developed countries such as the western countries and Japan.

The farm group holdings GAEC is expected to establish a group of more than two farmers (the pair of husband and wife is not eligible), and carry out a group

Table 6. Changes of Agricultural Holdings by Types of Business Organization in France

(Number; thousands) 1988 2007 2000 2005 Change 2007/1998 No. of total agricultural 507 1,017 664 545 △50% holdings Number ratio (%) Number ratio (%) Number ratio (%) Number ratio (%) increase-decrease (%) 608.5 (100.0%) (100.0%) (100.0%) No. of professional holdings (a) (100.0%)393.7 346.6 326.3 $\triangle 46\%$ Sole holdings 544.0 (89.4%)275.4(70.0%)215.8 (62.3%)191.8 (58.8%)△65% Group holdings 50.2 (8.3%) 44.3 (11.3%) 44.6 (12.9%) 42.5 (13.0%) △15% 37.6 (6.2%) (10.5%) (12.4%) (12.6%) In which :GAEC 41.5 42.9 41.1 1100% Groupement de fait 12.6 (2.1%)2.8 (0.7%)1.7 (0.5%)1.4 (0.4%)△89% Company limited holdings (1.9%) 73.5 (18.7%) (24.8%) (28.1%) 11.4 85.8 91.6 800% In which :EARL (0.2%)55.1 (14.0%)65.1 (18.8%)69.5 (21.3%)5000% 1.4 (4.7%)(5.3%)SCEA 86 (1.4%)14.7 (3.7%)16.3 17.4 200% SA/SARL 1.4 (0.2%)3.7 (0.9%)4.4 (1.3%) 4.7 (1.4%)340% (0.5%)0.5 (0.1%)(0.1%)(0.1%)△86%

Source: Agreste - Enquêtes structure 2005 et 2007, recensementsagricoles 2000 (mêmeéchantillon) et 1988 (cf. glossaire).

otes: (a) The professional holdings (exploitations professionelles) refer to the farms, which in addition to the definition of agricultural holdings of EU

[i.e. (i) to produce agricultural products;

(ii) to own at least 1 hectare of managing cultivated land, or in case of special crop cultivation, to own at least 20 ares of managing cultivated land;

or (iii) one cattle or 10 boxes of beekeeping), the farm exceeds the size 8 units of ESU (equivalent to 12 hectares of wheat cropping area, and in France more than three fourth of annual working hours are devoted to farm work.]

farming while maintaining their positions as chief of individual holding. All group members should participate in the farm work, and the responsibilities of members are limited to two times of invested quota. Types of GAEC are divided into a group holding consisting parents and children and a group holding consisting of other individuals. The number of GAEC was 2,000 in 1970, considerably increased to 37,000 in 1988, then became 41,000 in 2007, a rapid growth of 21 times in the period of 37 years. However in the 21st century, the number tends to stagnate or even decrease, in which the parent and children type decreased, while the GAEC groups participated by brothers and other people increased. Group holdings other than GAEC include the voluntary groups (de facto groups and non-legal entities) but they are rapidly decreasing. It may be assumed that these types of group holdings transit to either GAEC or company holdings in legal entity, and the decrease of GAEC itself is caused by the transit to company holdings in legal entity.

Particularly the agricultural management companies with limited responsibility, EARL, established in pursuant to the Civil Code, were only 1,400 in 1988, 551,000 farms in 2000, and 695,000 farms in 2007, thus increased 50 times for the period of 1988 \sim 2007.

EARL was created for the purpose of continuation of a farm, when a GAEC, a group holding of parent and children, has to resolve as the parent retires, in fact, one fourth of the group holdings of parent and children take the form of EARL. Their farm structure, different from "an association based on the Civil Code" like GAEC, is intended to separate the management and labor from the capital, so that the members are distinguished the managers (i.e., farmers) who participate in management from non-managers (i.e., non-farmers). In an EARL while there are conditions that the members should keep more than 50% of the invested capital and the representative is a farmer, other conditions conform to those of company management (incorporated association) of ordinary enterprises so that the members assume a limited responsibility within the invested capital. Also it is different from a GAEC so that an EARL can be established by one person or a couple. At the time of 1992, 20% of EARL was a legal entity with one person, and 50% was a legal entity with a couple.

A private association of agricultural holding, SCEA (Societe civile d'exploitation agricole), is allowed so that those who do not engage in management or work can own more than half of its capital, and in fact one third

of members of SCEA do not engage in the work. Moreover, not only individuals but also a legal entity like a group owing agricultural land like GFA (Group foncier agricole) could become the member and its member responsibility is unlimited. It is different from a group holdings as well as an EARL, a SCEA is a company which is able to carry out non-farm activities such as processing and sales. The number of SCEA has also been increasing as 8,600 in 1988 to 17,400 in 2007, nearly two times during 19 years.

Such an increase in group holdings and company holdings in legal entity suggests the fact that the traditional connection between the farm and family structures start to collapse, and it is regarded that such a transformation of enterprise types is an evident sign of collapse or at least a decline of the traditional small farms, in spite of the fact that 80% of invested capital owners of these group holdings and company holdings in legal entity are their family members¹⁷⁾. Regarding the composition of types of agricultural enterprise in France, in 2007, although the ratio of individual holdings still accounted for a majority, a transformation from individual holdings to group/company holdings is strengthening as shown in the ratio of group holdings 13.0% (in which GAEC 12.6%) and the ratio of company holdings in legal entity 28.1% (in which EARL 21.3%, SCEA 5.3% and SA/SARL (Societe anonym/ Societe a responsibilite limite) 1.4% respectively). Moreover in parallel with the phenomena, a direction to companies of the group holdings GAEC is developing.

In 2007, the average size of arable land by enterprise types was as follows: professional agricultural holdings 56.7 hectares, up 50% compared with 1988, GAEC 140 hectares, up 67%, EARL 94.3 hectares, up 36%, and SCEA 96.1 hectares down 5%. It means that except SCEA the sizes have expanded, in particular the sizes of group holdings and company holdings in legal entity increased about 2 times of individual holdings. The change suggests that the agricultural holdings in France are undergoing a structural transformation, which is mainly caused by group holdings and company holdings in legal entity based on a change in family relationship of traditional farms (i.e., individual holdings).

On the other hand, there exists a criticism to the policy for promoting such a structural transformation, specifically there is an objection that the concept of "agricultural holdings" is nothing but another version of the "enterprise" promotion for modern agriculture, the target in the past, thus it becomes the issue so that

sociologists and economists reconsider the significance and mutual relationship of the concepts¹⁸⁾.

5) Transformation of Enterprise Types of Farms in U.S.A.

Since the 1996 Agricultural Census, it becomes possible to look into the historic changes of farms in US from the aspect of enterprise types. The enterprise types of farms in US are divided into five categories: Sole Proprietorship, Partnership, Corporations, Cooperatives and Governments. Before the Second World War, the number of farms in US represented by family farms increased from 5.7 million in 1900 to 6 million in 1940. However, after the War, as the non-farm labor market expanded, the number of farms rapidly decreased, actually halved for two decades from 1950 to 1969. Afterward it continued to decline from 2.73 million in 1969 to 2.09 million in 1987 or a reduction of 24%, and became about one thirds of the pre-war level. Recently as shown in the Table 8, the number of farms also declined for a decade from 1987 to 1997, then in the following decade increased by 15%, amounting to about 2.2 million farms at the time of 2007, in repeating increases or decreases, which is different from the ever declining trend of individual holdings in EU. The type of individual holdings (the sole proprietorship in the US terms) which are meant to be "agricultural holdings solely owned by individuals or one family (i.e. the household chief) in non-legal entity", slightly increased from 1,809,000 farms in 1987 to 1,906,000 farms in 2007, an increase of 5%. On the other hand the family partnership farms with agreements between fathers and sons or among brothers decreased by 13% and became 174,000 farms in 2007. These family farms combining the sole partnership farms and the partnership farms in non-legal entity altogether accounted for 95% of the total farms. On the other hand, the corporation type of farms in legal entity considerably increased compared with the farms in non-legal entity types, which is indicated in the trend that while in 1987

the family company farms in legal entity amounted to 60,000 or 2.9% of the entire farms, they increased to 86,000 farms with the share of 3.9%, an increase of 41% in 2007. Since these family company farms have the stockholders of family members, most being those with less than ten stockholders, but in recent years those having more than ten stockholders are rapidly increasing in indicating increasingly open companies to the public. These three types of family farms altogether accounts for an overwhelming share of 98.3% of the total number of family farms yet at present.

Regarding the characteristics of economic activities by farm types, the average sale value of all farms is ¥11.07 million (converted to Japanese yen with the exchange rate: US\$1=\forall 80), and compared with the sale value of ¥6.42 million by the sole proprietorship farm, wide gaps exist among other types of farms as follows: the partnership farms earn \(\forall 29.33\) million, about 5 times; the family company farms \pm 70.76 million, about 11 times; the general company farms \(\forall 1,436.45\) million, 22 times; and the public entity farms \quad 9.86 million, about two times. Similarly regarding the arable land sizes, the average of all farms are 167 hectare and compared with 120 hectares of the land size of sole proprietorship farms, the partnership farms 370 hectare, about 3 times; the family company farms 532 hectares, about 4.4 times; the general company farms 432 hectares, about 3.6 times; and the cooperative/ public entity farms 870 hectares, about 7 times, thus these gaps also emphasize the small size of sole proprietorship farms. Above picture implies that even within various types of family farms the farm structure varies, and different development logics would be relevant¹²⁾.

Table 7. Agricultural Holdings by Types of Business Organization in U.S.A

Year		1987	1997		2002		2007		Change 2007/1987	
Types of Business Organization	No.	ratio(%)	No.	ratio(%)	No.	ratio(%)	No.	ratio(%)	No. cha	ange(%)
Total no. of farms	2,087,759	(100.0%)	1,911,859	(100.0%)	2,128,973	(100.0%)	2,204,762	(100.0%)	+117,003	+6%
Sole proprietorship (individual or family)	1,809,324	(86.7%)	1,643,424	(86.0%)	1,909,598	(89.7%)	1,906,335	(96.5%)	+97,011	+5%
Partnership	199,559	(9.6%)	169,462	(8.9%)	129,593	(6.1%)	174,217	(7.9%)	△15,342	△13%
Corporation	66,969	(3.2%)	84,002	(4.4%)	73,752	(3.5%)	96,074	(4.4%)	+29,105	+43%
In which: family-held	60,771	(2.9%)	76,103	(4.0%)	66,667	(3.1%)	85,837	(3.9%)	+25,066	+41%
Farm with less than 10 stockholders	59,599	(2.9%)	74,308	(3.9%)	65,017	(3.1%)	83,796	(3.8%)	+24,197	+41%
Farm with over 10 stockholders	1,172	(0.1%)	1,795	(0.1%)	1,650	(0.1%)	2,041	(0.1%)	+869	+74%
In which Other than family held	6,198	(0.3%)	7,899	(0.4%)	7,085	(0.3%)	10,237	(0.5%)	+4,039	+65%
Farm with less than 10 stockholders	5,379	(0.3%)	6,870	(0.4%)	6,010	(0.3%)	9,330	(0.4%)	+3,951	+73%
Farm with over 10 stockholders	819	(0.0%)	1,029	(0.1%)	1,075	(0.1%)	907	(0.0%)	+88	+11%
Others (cooperatives, government-owned)	11,907	(0.1%)	14,971	(0.8%)	16,030	(0.8%)	28,136	(1.3%)	+16,229	+136%

Source: USDA, 1987, 1997, 2002 and 2007 Censuses of Agriculture.

5. Choice and Transformation Logic of Types of Family Agricultural Holdings —Individual Holdings, Family Partnership Holdings and Family Company Holdings

Family holdings are classified into three enterprise types: individual holdings, family partnership holdings and family company holdings (reference Figure 1). In every developed country, individual holdings are the dominant type of holdings. However, the absolute number of individual holdings is rapidly declining and its share in all holdings is also declining below the level of 90%. Moreover in many cases, the statistical figures of individual holdings include those of partnership/ group holdings, in fact according to an independent aggregation by the EU member countries and an analysis by researchers, the share of individual holdings falls below 50% in large-sized holdings and intensive agricultural holdings, and such a trend is considered to strengthen. On the other hand, within the family partnership holdings, such types as group holdings and company holdings in legal entity are increasing in terms of absolute numbers as well as shares. In case a family farm moves from an individual holding to a group holding, the logic of human relationship takes place, but in case an individual or group holding moves to a company holding in legal entity, a different mechanism of transformation from human relationship to capital connection works¹⁹⁾.

Individual holdings are the agricultural holding based on sole ownership of family household chief, and their family members unite each other as a member of livelihood community derived from blood and mar-

riage relationships based on "the economic logic based on human relationship". Each family member engages in agriculture dependent on the discipline of livelihood community. In developed market economies, as the labor market expands and individual persons are increasingly conscious to the right of vocational selection, the movement of family members for working in other industries becomes increasingly popular, which causes to make many individual agricultural holdings and develop an agricultural holding, improvements and reforms of productive relationships among family members are increasingly needed, and as one of the reform patterns, the type of enterprises transforms from an individual holding to a family partnership holding. A family partnership holding is a type of agricultural enterprises, in which each family member becomes a joint owner of farm land and management capital, and concludes mutual contracts regarding the participating rights to management decision making, labor division of farm work, distribution of management profit and responsibilities.

A family group holding is a holding organized by a contract agreed upon by each member of family, thus a kind of human unions. Therefore it has a limit that when some of family members retire or leave, the partnership contracts dissolve and the holding moves to another type of enterprises. In other word, a family holding has to choose one of the following directions: to return back to an individual holding; to transform into "a general group holdings" in uniting with the third party other than family member; to transform into "a family company holding in legal entity" in

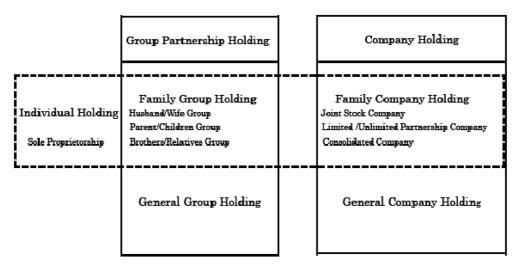


Fig. 1. Types of Family Agricultural Holdings by Business Organization

which parents retired from agricultural management become the land owner as well as capital investor; or to reorganize to "a general company holding in legal entity" in expanding the investors to the public. Typical examples of the transfer include the case that a parent-children GAEC changes to another GAEC with the participation of distant relatives or the third persons, or establishes an agricultural company in limited responsibility EARL. In order to overcome the limit caused by human relationship of group holdings, the logic of expansion from an inner family to wider social persons, i.e. the logic of socialization of work, governs. In the similar manner, a family company holdings in legal entity tends to transform into the general company holdings in legal entity in procuring the funds from the capital market, in this case, however, it is different from the integrated farms created by non-agricultural large capital, at present the companies based on the capital invested by families are in the main stream.

From the above discussion, it is considered that in the 21st century the development direction of family farm holdings in developed countries would be carried out through the reform of production relationship among family members, in connecting individual farmers including new participants into agriculture, and in formulating various types of holdings, while their types of enterprise shift from individual holdings to group holdings and company holdings in legal entity.

In Japan, in taking the occasion of application of farmers' pension system to female farmers, "the family management agreements" including the monthly payment, the weekly day off and the participation to management have been concluded, but it is different from the group holdings based on joint ownership based on the partnership acts in the western countries, and still remains in the framework of the enterprise type of individual holdings. Yet it can be said that the enterprise types chosen by agricultural holdings in Japan are also transforming into such enterprise types as group holdings and company holdings as in the western developed countries.

References

 Partnership is a system which was anciently formed in the era of Roman Empire, entered into the England through France in the Middle Age, and disseminated in the western countries including US. In the Partnership Act of 1890, it is defined as "the relationship among multiple persons who jointly manage an enterprise to earn a profit". Moreover in US, the Uniform Partnership Act of 1912 defined as "a group (an association) established by more than two joint owners for earning a profit". Partnership has not a corporate personality like companies, but an assembly of individuals (i.e. entrepreneurs), and a human union based on mutual agreements. The partnership is translated into Japanese as a limited partnership company and a consolidated company in the framework of Japanese legal system. However there are differences between both systems: the Japanese law gives a legal person status and it is subject to the corporate tax, while the partnership in the western countries has no legal person status thus nor obligation to pay taxes. (References: Kazuhiko Kunio, "The Partnership Act in US", Shoji-homu-kennkyu-kai (the Study Group on Commercial Legal Matters), 1991. Collin Randlesom edited, "Business Cultures in Europe", Second Edition, Butterworth Heinemann, 1993. Accounting Terms Dictionary, Nikkei-bunko; and others).

- FAO, "World Programme for the Census of Agriculture", 2010.
- 3) Yoichi Matsuki (1992), In "Analysis of Agricultural and Forestry Holdings in Japan", it is pointed out that the service holdings should be one of agricultural holdings and the statistics on agriculture and forestry be accordingly arranged.
- 4) Yoichi Matsuki (2003), "Various Types of Family Agricultural Holdings and Logic of Continuity", published in Nihon NogyoKeieiNenpo (the Annual Report of Farm Management in Japan) No. 2, Association of Agricultural and Forestry Statistics.
- Berkeley H_{ILL} (2005), "Institutional Units and Agricultural Statistics". Paper prepared for presentation at the 94th EAAE Seminar.
- 6) European Commission Eurostat: "Handbook on implementing the FSS" and SAPM definitions Revision on 5 March 2009.
- 7) Regulation (EC) No 1166/2008 of The European Parliament and The Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods and repeal in Council Regulation (EEC) No 571/88.
- 8) European Size Units (ESU): It is a unit to measure the economic size of a farm for comparing different productive activities of agriculture. 1 ESU is equivalent to a farm with total gross revenue of 1,200 Euro (about ¥140,000) or 1.5 hectares of wheat.
- 9) Standard Gross Margin (SGM): is a measure for providing the average profit for past three years in a certain geographical area. The average profit is calculated from the production value after deducting a certain variable cost. Due to the

- difference of SGM valuation among countries and geographical areas, the actual numbers of agricultural holdings and their economic sizes shown in this measure cannot be directly compared. Particularly in the former East European countries where there are many small sized farms less than 1 ESU, an inconsistency between the actual situation and statistical figures takes place. (EUROSTAT, Agricultural Statistics, Quarterly Bulletin, Special Issue: Farm Survey 2003).
- 10) In European Pocketbooks Agricultural Statistics Main Results -2007~2008. In the 2009 edition, they are classified into family farms, legal entities and other status, but since the source is FSS they have the same definitions.
- 11) Alan Harrison (1975) "Farmers and Farm Business in England" University of Reading, Department of Agricultural Economics and Management. Miscellaneous Study No. 62.
- 12) Yoichi Matsuki (1995), "International Comparison of Enterprise Types and Large Sized Rice Holdings", edited by Teruo Wada, "Large Sized Rice Holdings: Their Growth and Management", Tokyo University Press.
- 13) Noel Russell *et al.*, (2005) 'The Economics of Egg Production: 2003' Special Studies in Agricultural Economics Report No. 62. The University of Manchester.
- 14) Yoichi Matsuki (2003), "Pluriactivity of Family

- Agricultural Holdings and Transformation of Enterprise Types", published in Nihon Nogyo-KeieiNenpo (the Annual Report of Farm Management in Japan) No. 2, Association of Agricultural and Forestry Statistics.
- 15) R. Jongeneel and L.H.G. Slangen (2005), "Explaining the Changing Institutional Organisation of Dutch Farms" Paper prepared for presentation at the 94th EAAE Seminar 'From households to firms with independent legal status', Ashford (UK), 9–10 April 2005.
- 16) Hugues Lamarche (1987) "Family farming in France: Crisis and Revival" (edited by Boguslaw-Galeski and Eugene Wilkening, "Family Farming in Europe and America. Westview Press
- 17) Bertrand Herview (1991) "Discontinuities in the French Farming World" SociologiaRuralis Vol. XXXI-4
- 18) Catherine Laurent (1998) "Agricultural Holdings: Insight and Foresight" Etud. Rech. Syst. Agraire Dev., 31: 415–430.
- 19) Yoichi Matsuki (2003) "Persistence of Family Agricultural Holdings and the Logic of Structural Reform", included in "Potential Power of Family Agricultural Holdings", published in Nihon Nogyo-KeieiNenpo (the Annual Report of Farm Management in Japan) No. 2, Association of Agricultural and Forestry Statistics.

家族農業経営の企業形態の転換の論理と実態 ―日本と欧米諸国の比較分析―

松木洋一

日本獣医生命科学大学・名誉教授・食料自然共生経済学教室 オランダ・ワーヘニンゲン大学研究センター社会科学グループ客員研究員

要 約 家族農業経営は日本のみならず世界的に支配的な農業企業形態である。しかしながら、この中核的な農業の担い手組織が20世紀後半から崩落的な減少を辿っており、農地の耕作放棄のみならず農村社会の崩壊の直接的な原因となっている。

家族経営では、従事者の高齢化と後継者不足の進行が強まっており、血縁や結婚縁による協業の維持がますます困難になっている。そのために家族員間の経済的及び法律的な契約関係について様々な改善がとりくまれ、従来の伝統的な農家概念とは異なる多様な企業形態の農場が形成されている。特に家族員間のパートナーシップ契約(共同経営契約)が結ばれることによって世帯主の家父長的な所有と管理から解放され、対等な共同経営者として妻や子が経営参加する経営組織が形成されてきているのである。また、所有と経営、労働が分離して、世帯主が社長でそれ以外の家族は労働者として雇用される会社組織も形成されている。

家族農業経営体の企業形態の転換を規定するのは家族の生産関係であるが、その形態転換を規定する内容には、経営手段の所有と利用関係、労働における雇用および管理と分業協業関係、利益の分配関係、資産の継承関係などがある。企業形態 Type of Enterprise, Type of Business Organization, Business Form とは、経営体における所有・経営・協業労働の分化と結合の状態および発展段階によって類型化する経済的組織形態と各企業間の統合の状態をあらわす企業集中形態がある。また、個別の企業が設立や運営について法律によって規制されることによる法律的形態 Legal Form としての企業形態がある。経済的形態と法律的形態とは同一の企業の内実と形式の関係にある。農場の企業形態にはインテグレーションによる企業集中形態も重要であるが、ここでは個別の農場の経済的組織形態および法律的形態によって企業形態の類型的把握を行った。

キーワード:家族農業経営,企業形態,個人経営,共同経営,会社経営

日獣生大研報 60, 79-98, 2011.