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The purpose of the Centre is to provide a framework for investigations and research on problems concerning rural cooperative communities and publication of the results, to coordinate the exchange of information on current research projects and published works, and to encourage the organization of symposia on the problems of cooperative rural communities, as well as the exchange of experts between different countries.

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The Development of Group Farming in Post-War Japanese Agriculture*

by

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Abstract

The paper analyzes how Japanese group farming organizations have developed since World War II. In post-war Japanese agriculture, part-time farmers are increasing, and heirs and successors to the older farmers are leaving farms and rural areas as a consequence of rapid industrialization. About nine years after the emergence of post-war voluntary group farming, the government introduced the concept of corporate (group) farming, appealing in particular to young farmer-successors hoping that corporate (group) farming would help them get benefits similar to those offered by industries in urban areas. The study reveals that thanks to the government's special support and laws, the number of corporate (group) farming organizations has rapidly increased although it is still low as compared to the number of voluntary group farming organizations. Nowadays, however, group farming plays an important role in post-war Japanese agriculture. This paper also discusses briefly how Japanese group farming differs from, or is similar to, group farming in some other Asian countries, developed and developing.

Introduction

Part-time farmers are increasing, full-time farmers are decreasing and farm laborers are aging in Japan's post-war agriculture. The heirs and successors to the older farmers are leaving farms and rural areas in search of better jobs in the

*An earlier draft of this paper benefited very much from the comments of late Professor Yoshio Itoh. A number of critical comments and insightful suggestions from the editor of this journal have greatly improved the organization and quality of this paper. We appreciate his sensible idea of incorporating the issues of group farming in some other Asian countries. An anonymous reviewer's valuable comments have also benefited this paper. Any errors are our responsibility.

urban industrial sectors as a consequence of the rapid economic growth since 1955, especially during the 1960s,¹ through the establishment of heavy and chemical industries.

Concern about the decline in farm labor led the government to establish group farming of a voluntary type. The prime objective of voluntary group farming was to address the problems of the agricultural labor shortage as well as cultivation of small-scale farm plots left by young farmers. Thus, as World War II ended, old-fashioned group farming, focusing on the problems related to farm labor shortages, turned into new configurations to resolve some questions of modernizing rural areas.

The concept of corporate farming or corporate group farming occurred much more recently in the history of Japanese agriculture than did voluntary group farming. About nine years after the emergence of post-war voluntary group farming organizations, the concept of corporate (group) farming was introduced for the first time, with particular appeals, albeit premature, to the young farmer-successors that corporate farming would help them get benefits similar to those offered by non-agricultural industries. The principal strategic objective of corporate (group) farming was to retain young farmer-successors and attract new ones to rural areas by offering them official managerial positions.

This study aims at investigating the development of post-war group farming in Japanese agriculture. It discusses Japan's group farming in terms of its brief historical development, its classifications, and other important aspects.

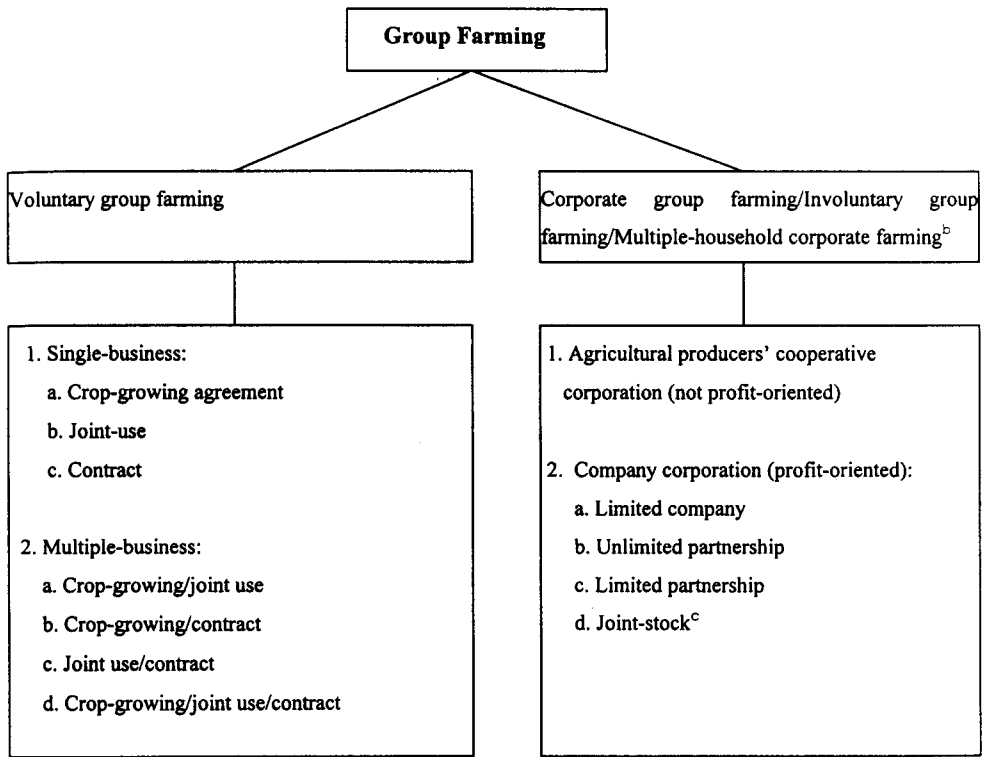
The study also discusses briefly group farming in some other Asian countries.

Types of post-war Japanese group farming organizations

The term "group farming" can be used to indicate a joint venture in farming, and in a broad sense to describe all aspects of farming that include group endeavors, such as working together, sharing equipment or facilities, establishing agreements among farmers on farm work, and jointly managing water.

From a legal point of view, group farming in Japan may be broadly categorized as voluntary and corporate group farming (Fig 1). The three terms, corporate group farming, involuntary group farming, and multiple-household corporate farming, are interchangeable in our study.

¹ Saito (1991:48-50) stated that following the enactment of the Agricultural Land Act in 1952, which was intended to encourage independent farmers to produce more food and to democratize rural society, the Japanese rural area became overpopulated as soldiers and townspeople returned to their homes. A few years later, the rural areas faced a shortage of farming population, an increase in part-time farms, old and female farmers, and a lack of successors in agriculture. According to Kamiya (1996:9), the number of farmers whose main income was not from agriculture, increased by 70 percent during the 1960s, while the number of farms fell by 21 percent.

Figure 1. Classifications of Japanese group farming^a

^aThe classifications are based on broad, inclusive categories.

^bThe three terms are interchangeable in our study.

^cScholars strongly argue whether a joint-stock company corporation is a group farming organization.

Voluntary group farming. In voluntary group farming, members do not hold any legally recognized official positions such as director and manager. The voluntary group farming is not legally obliged to maintain an accurate balance sheet, income statement, etc. It can be sub-classified as single-business and multiple-business group farming. A single-business group farming organization performs only one kind of farming operation such as crop cultivation (through a crop-growing agreement) or farm machinery management (through a joint use) or contract farming (taking lease of other persons' farm work). A multiple-business group farming organization deals with more than one farming operation such as the crop cultivation and farm machinery management.

Corporate group farming. When a voluntary group farming organization incorporates, it becomes an involuntary or corporate group farming organization. The word "incorporate" means that the members of a corporate group farming organization hold legally recognized official positions, such as director and manager. The members are then technically called "legal persons" and possess legal rights such as purchasing farmland and conducting certain business transactions. The organization has to keep financial records subject to government scrutiny. Corporate/involuntary group farming can be sub-classified as agricultural producers' cooperative corporation, and company corporation. An agricultural producers' cooperative corporation is ideally a not-for-profit entity that aims to increase members' farm benefits through cooperative planning and work. It is regulated under agricultural cooperatives law. The company corporation conducts business for financial profit and is regulated under commercial law.

This study recognizes that, while a group farming organization consists of farmers from multiple households, a corporate farming organization may consist of farmers from either a single household or multiple households. Therefore, whereas single-household corporate farming is simply corporate farming but not corporate group farming, multiple-household corporate farming is both corporate farming in general and corporate group farming in particular.²

Emergence and importance of Japanese group farming³

After the Meiji Restoration and before World War II, farmers usually used bullock plows and engaged human laborers to conduct joint farming operations. Farmers who

²While our study is particularly interested in corporate group farming in which farmers of multiple households organize and incorporate, several years' data from national surveys are available only for corporate farming organizations in general rather than corporate group farming organizations in particular.

³Though "group farming" is a post-war concept in Japanese agriculture, the term is used here regardless of time, as forms of group farming (different from the present ones) were in existence during the pre-war period.

were relatives in the same or nearby rural community borrowed and lent laborers among themselves. Joint farming became much more conspicuous as Japan entered World War II. As young farm laborers left rural areas in large numbers to join the army, those remaining behind – old people, women, and children – needed the help of joint farming to compensate for the farm labor shortage.

After World War II, a vast land reform was carried out under United States occupation and made possible by the help of General Headquarters (GHQ) occupying Japan at that time. The land reform was carried out by revising the Agricultural Land Adjustment Act of 1938 to strengthen the establishment of owner-farmers and the cultivation rights of farmers. The landownership was limited to 1 hectare (4 hectares in Hokkaido Island). The government purchased all land over that limit, including cultivable land leased to other farmers, and sold it to cultivators at a price fixed as profitable. Known as the Land Reform of 1946, this created a network of small-scale farms.

The post-war land reform and the introduction of more efficient farm machinery caused a rapid rise in “joint use” group farming. In the post-war period, “joint use” referred to farm machines, rather than the joint operation of labor in earlier periods.

Some positive side effects of the industrial development of the 1950s and especially the 1960s advanced the progress of Japanese group farming. As the gap widened between the industrial and agricultural sectors, with a substantial reduction in the number of agricultural laborers and part-time farmers, the Japanese government made several attempts to reduce the gap, tackle the problems of farm labor shortage and secure the young farmer-successors in the rural areas. New forms of group farming began to appear.

Around 1955, the government introduced the concept of “corporate farming” in general and that of “corporate group farming” in particular to Japanese agriculture to help farmers or units of group farmers receive benefits similar to those offered by industrial companies, along with tax concessions. Corporate farming is described with a special reference to its fundamental strategy of securing the young farmer-successors to counter the industrial sectors’ pull exerted on the farm labor force.

Even in the late 1950s, the difference between agricultural and industrial workers in productivity and income still needed to be narrowed. Consequently, a critical issue addressed by the Agricultural Basic Law in 1961 was the increase in agricultural production.⁴ In contrast to the Agricultural Land Law of 1952, the 1961 law provided advantages to encourage family farms (Ogura, 1977:53), promoting the development of group farming. A year later, in 1962, amendments to the Agricultural Cooperative Law and the Agricultural Basic Law created an “agricultural producers’ cooperative

⁴As an impact of the Agricultural Basic Law of 1961, post-war agriculture, which had begun using chemical fertilizers and agricultural pesticides extensively since 1950, changed dramatically due to the remarkable progress in farm mechanization in the 1960s and 1970s.

corporation." The amendments permitted corporate farming for agricultural production (excluding joint-stock company) to possess farmland.

The New Agricultural Policy of 1992 re-emphasized corporate farming with a view to securing an adequate number of young farmers in the future while Japanese agriculture meets internationalization and advances towards the 21st century. The policy has improved the terms and conditions of the taxation system, restrictions, and finance to make corporate farming more attractive.

In recent years, Japanese agriculture has also been affected by the gradual increase in the number of aging farmers. The government has emphasized the formation of group farming to lease in those farmlands entrusted (fully or partially) by aged farmers including part-time farmers.⁵

Thus, while the non-agricultural sector's rapid economic growth in post-war period has brought about some remarkable structural changes in agriculture, such as the farm labor shortage and farmer-successors' tendency to seek jobs in non-agricultural sectors, the Japanese government took effective measures such as group farming and farm incorporation to confront such changes.

A group farming organization is formed principally to perform farm works through a joint effort. But some corporate group farming organizations such as agricultural producers' cooperative corporations perform some secondary off-farm works particularly in winter when there is no farm work to do. They do so because they are required to pay the employees' salaries throughout the year. The secondary off-farm works may include producing rice-cakes and soybean paste. Some corporate organizations also do some tertiary off-farm works such as marketing. The organizations try to turn farming into a business enterprise to attract not only consumers but also young farmers. Voluntary group farming organizations usually do not undertake secondary and tertiary off-farm works because they are unable to take higher business risks.

Incorporation of farming organizations

As Japanese agriculture entered the 1960s, the issue of corporate farming became critical.

The important purposes of corporate farming are to modernize farm management so that the widening economic gap between the agricultural and industrial sectors is reduced; to solve the problems of aging farmers and their successors; to introduce a system of holidays and salaries; to make better use of some institutional credits; and

⁵ According to Itoh (1994:83), farm households that left some work in trust accounted for 46 percent of the paddy-rice farm households. Based on the types of work, 37 percent of the total number of rice farms had left their drying and processing work in trust; 20 percent, their rice reaping and threshing; and 17 percent, their seedling culture. About 3 percent had left all their works from seedling culture to drying and processing in trust.

to improve the social position of rural women.

Japanese national policymakers and administrators have determined key requirements that a voluntary group farming organization or a group of farmers from different households must fulfill to incorporate (Itoh and Yamaki, 1992:13-14; Sakai, 1994:33-36).⁶

Organization. Corporate group farming must be either an agricultural producers' cooperative corporation, or a limited company, or an unlimited partnership company, or a limited partnership company; it may not be a joint-stock company.

Business activities. Corporate group farming must confine its business activities to agriculture, forestry together with agriculture, the processing and sale of self-produced, self-nurtured agricultural products and livestock, and the establishment and promotion of members' joint-use facilities related to farming. It may not conduct real estate, construction, or other off-farm businesses.

Membership. A member of a corporate group farming must fulfill at least one of the following criteria. The member must be a monetary investor in the agricultural land used by the corporation; or a regular employee of the corporation; or an agricultural land holder who invests his or her land in the organization and rationalizes land ownership rights; or a member of the Agricultural Cooperative Association; or a consumer who directly purchases goods from the corporate group farming organization; or a co-signatory of farm work or land to the corporate group farming organization; or a legally accepted person with a close connection to the group farming organization with respect to supply of goods, labor and so on.

Management responsibility. Corporate group farming officials are required to regularly execute duties relevant to farming activities. In the case of a limited company, the corporate head may be a non-farmer person or even a non-member. For an agricultural producers' cooperative corporation, the head must be a member of the corporation.

Merits of corporate group farming

Corporate group farming not only secures young farmer-successors, but also separates "farming affairs" from "farm household works" and provides farmers with a comfortable lifestyle that includes a monthly salary, bonus, holidays, and official positions offering attractions similar to those of a non-agricultural company. Farmers in rural areas traditionally manage their farms for profit; still they do not maintain a comfortable lifestyle because their farming affairs are not usually separated distinctly from household work and in addition, they do not enjoy modern opportunities such

⁶These are discussed in the context of corporate group farming, though they may also apply to corporate farming.

as monthly salaries, bonuses, fixed holidays, or recognized social positions. In the modernized and industrialized age of Japan, the farmers are seeking a lifestyle that can provide them with the opportunities and benefits that general industry provides to its employees. Sakai (1994:49-54), Kimura (1999:21-22) and Ide (1999:99-108) described some important merits of corporate group farming.

The farm management of corporate group farming is independent of family farm management and can offer business guarantees to other people or organizations in the name of the corporation. An agricultural producers' cooperative corporation looks after its members, providing them with equal benefits, rights, and opportunities.

Corporate group farm management addresses modernization of labor administration, capital, facilities, and machinery. Relationships between parent and child, husband and wife, relatives, and friends become a relationship based on cooperative positions in the group farm effort. Government regulation of corporate group farming covers salaries, payment of wages, health and employment insurance, and pensions. Modern personnel management reduces members' concerns about becoming ill or growing old.

Corporate farming, in contrast with voluntary and individual farming, can assure greater security for continuing farming affairs. In voluntary and individual farming, risk management is weak and the farm may lose money or fail to thrive due to farmers' physical or mental inability. But given the better financial and legal support from the government, corporate group farming can identify risks and diversify, providing greater security of farming sustainability. In addition, when corporate farming expands the farm management scale, tax payment through corporate farming becomes more economical. When it is possible to expand farm management, tax payment through corporate farming becomes more economical.

These benefits suggest that incorporation of group farming organizations can lead to outstanding progress in Japanese farm management. Nonetheless, some actual situations demonstrate disadvantages associated with the incorporation of group farming.

Demerits of corporate group farming

Though corporate group farming was to provide farmers with substantially higher benefits, the number of corporate group farming organizations is low when compared with that of voluntary group farming. The Japanese government is partly responsible for that. In 1973, a new provision allowed "invisible corporate group farming" (not legally incorporated but acting like a corporate one in many respects) to enjoy tax concessions. This provision decreased the number of incorporated group farming organizations because the farmers who merely wished to enjoy the tax advantages were able to do so without forming formal corporate group farming (Kurokawa 1993:6-16). This prevented the promotion of corporate group farming until 1992

when the provision was revoked.

Sakai (1994:49-54), Kimura (1999:23-25) and Ide (1999:108-115) described some demerits of corporate group farming.

Upon joining a corporate group farming organization, young farmers lose some institutional credits prescribed for them. Establishing a corporate group farming organization has proved to be burdensome in cost and effort. Members of the corporate group cannot enjoy the advantages of incorporation until their salaries are raised to a certain level. To attain a profitable management scale (*i.e.*, to make enough money to pay all salaries, defray variable costs, and expand the scale of farm management) is time-consuming and, in most cases, corporate groups have failed to attain it. No corporate group farming organization has ever started out with huge capital investment, large amount of borrowing, and smooth business management. In addition, the financial advantages of the tax concessions are offset by the cost of social insurance policies (especially for welfare pension) the groups' members are required to take out.

To some extent, personal values, traditions and individual desires work against the extension of corporate group farming. Some farmers consider corporate group farming to be contrary to the principles of family or independent farming, thus restricting their freedom.

A corporate group farming organization may purchase farmland in the name of the corporation or receive members' farmland as investment in the corporate entity. The corporation may encounter difficulties if any member withdraws his membership from the corporation and demands money equivalent to the member's share of the farmland. The problem is aggravated when the farmland is situated in a suburban area, where the value of farmland has risen. The corporation incurs a loss in paying out the increased amount of money.

Members who have invested their farmland in the incorporated farming group are highly esteemed as "donors," whereas the donors' wives or children who do not hold the title to agricultural land are treated as mere employees of the corporation. Usually a son would legally inherit farmland from his father taking advantage of the "postponement of farmland inheritance tax" system when the father does not invest the farmland in a corporation. But if his father invested the farmland in a corporation, even if the father and son are both members of the same corporation, the son has to pay inheritance tax when he wants to legally inherit the farmland to obtain a title to it.

The Center for Regional Society Planning (1989:64) described the labor shortage as a serious impediment to corporate group farming. Of the corporate farm organizations in 1989, 26 percent suffered from a labor shortage, 21 percent had a problem with an increase in farmers who could not perform farming work, and 21 percent had a shortage of capital (machinery, equipment, and working capital).

Sekiya (1993:29-30) provides statistics to show that the rate of increase in corporate group farming organizations is not steady, because a number of organizations disintegrated while others were established.

Voluntary and corporate group farming: general data

According to agricultural censuses conducted by the Ministry of Agriculture, Forestry and Fisheries (1985, 1990, and 1995), the number of voluntary group farming organizations engaged in business activities such as the joint use of machinery and facilities, group farming, and contract farming steadily decreased from almost 52,000 to about 42,000 organizations (Table 1).

Table 1. Voluntary group farming organizations by types^a

Organization type	Number (Percentage of total)				
	Pre-1959	1975-79	1985	1990	1995
Single-business					
Crop-growing agreement	n.a. ^b	n.a.	4,238 (8.2%)	6,991 (14.9%)	6,190 (14.6%)
Joint use	n.a.	n.a.	26,310 (51.1%)	24,958 (53.2%)	24,727 (58.4%)
Contract	n.a.	n.a.	2,595 (5.1%)	584 (1.2%)	743 (1.8%)
Subtotal	n.a.	n.a.	33,143 (64.3%)	32,453 (69.2%)	31,660 (74.8%)
Multiple-business					
Crop-growing/joint use	n.a.	n.a.	10,774 (20.9%)	6,366 (13.6%)	4,406 (10.4%)
Crop-growing/contract	n.a.	n.a.	38 (0.01%)	135 (0.3%)	19 (0.04%)
Joint use/contract	n.a.	n.a.	6,005 (11.7%)	6,491 (13.8%)	5,558 (13.1%)
Crop-growing/joint use/contract	n.a.	n.a.	1,554 (3.0%)	1,432 (3.1%)	694 (1.6%)
Subtotal	n.a.	n.a.	18,371 (35.7%)	14,424 (30.8%)	10,677 (25.2%)
Total	2,135 (100%)	14,728 (100%)	51,514 (100%)	46,877 (100%)	42,337 (100%)

^aMinistry of Agriculture, Forestry and Fisheries, 1985, 1990, 1995

^bn.a.: Not available.

Among the above organizations, those engaged in a single area of business increased from 64.3 percent in 1985 to 74.8 percent in 1995. During that same period, the voluntary group farming organizations engaged in two or more business activities declined from 35.7 percent to 25.2 percent.

The much larger percentage of single-business group farming organizations than multiple-business operations implies a preference on the part of the Japanese farmers. Although the types of business have changed over the years, overall, the number of single-business group farming organizations has grown steadily. In contrast, the number of multiple-business group farming organizations has shown a marked decline, in numbers as well as percentages.

Table 2. Voluntary group farming organizations by products^a

Product	Pre-1959	1965-69	1970-74	1975-79	1985	1990	1995
Paddy-rice	473 (22.2%)	1,664 (34.9%)	4,888 (48%)	5,627 (55.2%)	16,802 (32.6%)	16,508 (35.2%)	17,325 (40.9%)
Wheat	12 (0.6%)	77 (1.6%)	235 (2.3%)	1,338 (13.1%)	4,325 (8.4%)	3,946 (8.4%)	1,906 (4.5%)
Bean	7 (0.3%)	21 (0.44%)	119 (1.2%)	475 (4.7%)	2,863 (5.7%)	n.a. ^b	1,461 (3.5%)
Raw/industrial crops	437 (20.5%)	477 (10%)	919 (9.0%)	1,465 (14.4%)	5,126 (10%)	4,416 (9.4%)	4,626 (10.9%)
Fruits		1,000 (20.9%)	932 (9.1%)	1,026 (10.1%)	5,558 (10.8%)		4,797 (11.3%)
Vegetables	485 (22.7%)	n.a.	n.a.	n.a.	6,159 (12%)	4,849 (10.3%)	5,347 (12.6%)
Grass and livestock	n.a.	n.a.	n.a.	n.a.	5,839 (11.3%)	5,638 (12%)	4,336 (10.2%)
Other crops	n.a.	n.a.	n.a.	n.a.	3,502 (6.8%)	4,301 (9.2%)	2,314 (5.5%)
Sericulture	n.a.	n.a.	n.a.	n.a.	1,340 (2.6%)	n.a.	225 (0.5%)
Total	12,135 (100%)	4,774 (100%)	10,193 (100%)	14,728 (100%)	51,514 (100%)	46,887 (100%)	42,337 (100%)

^aSource: Ministry of Agriculture, Forestry and Fisheries, 1985, 1990, 1995.

^bn.a.: Not available.

Table 2 classifies the voluntary group farming organizations according to their main products. In 1995, 40.9 percent were engaged in rice production, 12.6 percent in vegetable production, 11.3 percent in fruit production and 10.9 percent in the production of raw crops. Of these, only the number of rice-producing group farming organizations has increased every year, while the organizations for other products have decreased every year and the total number of voluntary group farming organizations has also decreased slightly. For any given year since 1959, the relative importance of paddy-rice cultivation in group farming is higher than any other product in terms of percentage as well.

Analysis of the tabular data shows that, although the voluntary group farming

organizations are decreasing in number, they are still sufficiently numerous to play a significant role in Japanese agriculture.

Table 3. Corporate farming (single- and multiple-household) by types^a

Type	1965	1975	1985	1989	1990	1991	1995	1996
Agricultural prod coop corp	568 (43.86%)	856 (29.73%)	1,324 (41.79%)	1,593 (43.85%)	1,626 (42.61%)	1,541 (41.12%)	1,335 (32.17%)	1,387 (30.23%)
Limited company	712 (54.98%)	2,007 (69.71%)	1,825 (57.61%)	2,020 (55.60%)	2,167 (56.79%)	2,184 (58.27%)	2,797 (67.40%)	3,180 (69.31%)
Unlimited partnership	n.a. ^b	n.a.	n.a.	n.a.	n.a.	n.a.	4 (0.10%)	6 (0.13%)
Limited partnership	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	14 (0.34%)	15 (0.33%)
Total	1,295 (100%)	2,879 (100%)	3,168 (100%)	3,633 (100%)	3,816 (100%)	3,748 (100%)	4,150 (100%)	4,588 (100%)

^aSources: Fueki, 1993:89; Ministry of Agriculture, Forestry and Fisheries, 1985, 1990, 1995.

^bn.a.: Not available.

Table 3 shows the corporate farming by types and Table 4 shows them by products. Table 3 shows that of all the incorporated farms, agricultural producers' cooperative corporations and company corporations are 30.23 percent and 69.31 percent, respectively. The decreasing number of agricultural producers' cooperative corporations and the growing number of limited companies implies that farmers are more interested in seeking company profits than egalitarian benefits for members. The table also shows that the number of unlimited partnership corporate farming and limited partnership corporate farming is extremely low, which is due to inadequate government support. Government has only adequately supported agricultural producers' cooperative corporations and limited companies.

Table 4 shows that about one-third of corporate farming is dedicated to livestock production, which is in contrast to voluntary group farming that emphasizes rice production. Because management of rice farming is easier than that of livestock farming, many rice farmers are able to meet their needs through voluntary groups. Livestock farming requires a larger amount of money and sound management to succeed. Corporate group farming offers livestock producers essential government benefits. However, in a sample study of 328 limited companies, Horiuchi (1999:18) showed that 33.5 percent of the companies were engaged in rice production. In another sample study of 149 agricultural producers' cooperative corporations, Horiuchi (*ibid.*) showed that 38.3 percent of the corporations were engaged in rice production.

Horiuchi (1999:15) has analyzed a sample of 477 agricultural producers' cooperative corporations. His analysis shows that the corporations have only 4.7 percent of single-household corporate farming and 94.0 percent of multiple-

Table 4. Corporate farming (single- and multiple-household) by products^a

Product	1985	1990	1995	1996
Rice/Wheat	553 (17.46%)	558 (14.62%)	803 (19.35%)	921 (20.07%)
Fruit	516 (16.29%)	592 (15.51%)	523 (12.60%)	543 (11.84%)
Livestock	1,262 (39.84%)	1,564 (40.99%)	1,510 (36.38%)	1,552 (33.83%)
Vegetables	157 (4.96%)	216 (5.66%)	293 (7.06%)	357 (7.78%)
Other	680 (21.46%)	886 (23.22%)	1,021 (24.60%)	1,215 (26.48%)
Total	3,168 (100%)	3,816 (100%)	4,150 (100%)	4,588 (100%)

^aSource: Ministry of Agriculture, Forestry and Fisheries. n.d.

household corporate farming (*i.e.*, corporate group farming). Horiuchi's analysis on another sample of 328 limited company corporate farms shows that the farms have 67.1 percent of single-household corporate farming and 32.3 percent of multiple-household corporate farming (*i.e.*, corporate group farming).

Table 3 and Table 4 have already shown that the total number of corporate farming organizations is 4,588. While the number of single-household corporate farming organizations is 1,795, the number of multiple-household corporate farming organizations (*i.e.*, corporate group farming organizations) is 2,793.⁷ The number of single-household corporate farming organizations is quite significant. This implies that there are many farmers who prefer individual corporate farm business to group corporate farm business. It is difficult to say whether the number of corporate group farming organizations has increased or decreased in recent years, but it is obvious that the number is still low. The number could have been higher if the single-household corporate farming organizations merged to form corporate group farming organizations and/or, if more voluntary group farming organizations incorporated.

The number of voluntary group farming organizations is 42,337 (1995 data; see Tables 1 and 2) and that of corporate group farming organizations is, as mentioned above, 2,793. It is obvious that corporate group farming organizations represent a small portion of Japanese group farming organizations. A recent personal correspondence with the Ministry of Agriculture, Forestry and Fisheries (2001), showed that the number of agricultural producers' cooperative corporations, which are not profit-oriented, has been low over the past years, down to 1,341 in 2000. But the number of company corporations (namely, limited company group farming organization, unlimited company group farming organization, and limited partnership group farming organizations; excluding join-stock companies), which are profit-

⁷ 1996 unpublished data, received from the Ministry of Agriculture, Forestry and Fisheries.

oriented, has been high over the past years and was as high as 3,413 in 2000. This implies that the farmers of corporate group farming organizations are more concerned with profit than with egalitarian benefits for farmers.

In spite of the increase in the number of corporate group farming organizations and the decline in the number of voluntary group farming ones, the first have not yet achieved the status of the latter.

Although corporate group farming does not seem to have progressed much in Japanese agriculture, it has been successful in securing farmer-successors. Kamiya (1996:50-52) mentioned that as of 1995, 74 percent of the farm operators had secured successors. In the past several years, the number of young people engaged in agriculture has finally begun to increase, albeit slightly.

As the Japanese government has viewed corporate farming as a vigorous measure to halt the decline in the number of young farmer-successors, the subject of whether a joint-stock company should become a corporate farming organization has been strongly argued. Although a joint-stock company has better human resources, capital, technology and know-how, it can transfer its stock. The transfer of stock brings uncertainty in farm management. Based on commercial law, though the free transfer of stock has been limited, there is still some fear that the company may purchase farmland to hold it for speculative interests rather than use it productively. However, there is a possibility that a considerable decline in the number of farm successors may necessitate the entry of joint-stock companies using farmland for speculative purpose or converting it to other uses.

Although Japanese farming has become independent since 1945 and incorporation of farming began to progress, it was still family-oriented for years. Initially, the management-scale was generally so small for both the voluntary and corporate group farming that Japanese people had an impression that farming was not profitable. But in recent years, while they still have the similar impression of voluntary group farming, they hold an increasingly positive impression of corporate group farming, although the number of corporate group farming organizations is still low. In the capitalistic society of Japan, the firm (industrial) is corporate in structure and is used to keep business records that financial institutions require before they invest and the employers need to review before they consider employment. For this reason Japanese people, especially financial investors, employers, and employees, have a positive image of corporate group farming organizations that keep business records.

Group Farming in Japan and four other Asian countries

We did field surveys (from 1993 to 1998) on different aspects of group farming in five Asian countries, namely Bangladesh, India, South Korea and Japan, and did literature reviews on those of Malaysia (Morooka *et al.*, 1991; Fujimoto, 1994; Fadzil, 1994; Mohayidin and Chew, 1992). Based on our studies (Sarker and

Itoh, 1998; Sarker *et al.*, 1997; Sarker and Itoh, 1997; Sarker and Itoh, 1996; Sarker and Itoh, 1995, unpublished survey data and the literature just mentioned), we can identify some dissimilarities and similarities concerning some aspects of group farming in the five Asian countries. Based on general trends of economy and industrialization in these countries, we can broadly define Bangladesh and India as developing countries, Japan and Korea as highly developed countries, with Malaysia as a to-be developed country.

Our findings lead us to theorize that in developing countries where farm laborers are abundant, group farming is "labor intensive," whereas in developed countries where farm sector suffers an acute shortage of farm labor, group farming is "capital intensive." In addition, while group farming may be necessary irrespective of a developing or developed country, the nature of necessity is substantially contradictory. A developing country primarily attempts to create group farming as a means of utilizing human resources, given that farm laborers are abundant in its farming sector, while a developed country aims to utilize farmland, given that rural farm labor is scarce. The problems of group farming in a developed country are related to farm machinery management, for example, but those in a developing country are related to labor management.

Rural-to-urban migration due to rapid industrialization and urbanization in Japan, Korea and Malaysia has caused labor-shortage in the farming sector that has consequently necessitated capital intensive group farming through farm mechanization. Therefore, "the contradiction of necessity" of group farming is that while Japanese, Korean and Malaysian group farming policies deal with those issues that concern pulling in farmer-successors to the farming sector, Bangladeshi and Indian group farming policies concern the issues of abundant laborers already available. The level of farm mechanization in the agricultural sector is extremely low in the developing countries and group farming based on farm machinery management is rare, if any. But Japan and Korea as highly developed countries have adopted group farming based on farm machinery.

Private land ownership right is one of those critical issues that explain the success and failure of group farming in Bangladesh and India. Group farming in Bangladesh and India was unsuccessful in many cases due to disputes concerning land ownership rights. We found that this issue was also critical in our case study area of an Indian group farming organization called "Gambhira group farming society," which has been extraordinarily successful with about 206 ha of farmland and 291 members (in 1993) for more than 40 years. In our survey of 1993, we found that a farmer, who had his private land included in the organization, filed a case to withdraw his membership as he refused to continue farm work for personal reasons. Consequently, the society faced some difficulties. In Japan and Korea, these problems are not pertinent as farmers usually entrust their land to group farming organizations.

Korea and Japan have some similar socio-economic characteristics such as the exodus of farm laborers, high farm mechanization, and rapid economic growth because of heavy industrialization. The agricultural sector of both countries is highly mechanized. As Malaysia has progressed in industrialization, the country has already emphasized farm mechanization and machinery based group farming.

Generally, farmers in Japan and Korea are historically cooperative and have assigned much importance to group activities but those in Bangladesh and India are individualist paying usually higher attention to individual outcome rather than to group outcome.

The purpose or necessity of formulating group farming policies does not seem to be contradictory in Japan and Korea; rather the purpose is quite similar. Korea, a late-coming developed country has substantially adopted some similar group farming policies as Japan and Korea. The general purpose concerns farmland management through mechanization that in turn requires machinery based group farming.

Japan, Korea and Malaysia have distinct government policies for group farming but Bangladesh and India, after some unsuccessful experiences, do not have definite group farming policies on a national level. Many of the successful group farming organizations in Japan and Korea are heavily supported by government policies to enhance business-oriented farming. Government policies in Malaysia have emphasized business-oriented group farming as the country has heavily industrialized its economy.

Given that farm labor abounds and industrialization has not yet expanded substantially in Bangladesh and India, the question may simply arise as to whether these countries can learn any lessons from Japanese or Korean group farming activities. Bangladesh and India, if they need to formulate group farming policies, should perhaps establish a policy to reduce the number of farm laborers in the agricultural sector. This does not necessarily mean they should heavily emphasize industrialization and urbanization to create rural-to-urban migration to attain results as in Japan and Korea. Although widespread industrialization and farm mechanization have significantly contributed to Japanese and Korean group farming, a number of critical problems such as the decline of farmer-successors have arisen in the farming sector due to rural-to-urban migration. To avoid similar problems the developing countries, in considering industrialization, should simultaneously emphasize rural industrialization, too. As industries become locally available, there is a possibility for farmers not to abandon the rural areas to be employed in industries. Rural industrialization may address the rural-to-urban migration or farmer-successors scarcity issues.

Conclusion

Strongly backed by the government, group farming has progressed in post-war Japanese agriculture. The government has supported it to tackle some post-war agrarian problems, which have been mainly aggravated by rapid and heavy industrialization. The post-war agrarian problems include the decline of farmer-successors within the context of an aging society.

To address the problems, the government has significantly laid importance to voluntary and corporate group farming. About nine years after the emergence of voluntary group farming, the government introduced the concept of corporate (group) farming so as to help young farmer-successors get benefits similar to those offered by industries in urban areas.

Incorporation of group farming has made rapid progress, though the number of corporate (group) farming organizations is still below that of voluntary group farming in Japanese agriculture. The government has maintained a close watch in order to enact different laws and policies to assure the success of corporate farming. The New Agricultural Policy of 1992 attributed great importance to corporate farming as a vigorous measure for halting the decline in the number of young farmer-successors. The issue of whether a joint-stock company, which may transfer its stock and may make use of the farmland for speculative purposes, should join corporate group farming, has been strongly argued. There is a fear that a considerable decline of farmer-successors may necessitate the entry of many joint-stock companies. Some government policies have, however, attempted to limit the speculative activities of joint-stock companies.

Group farming has advanced to play an important role in post-war Japanese agriculture. Given that formulating appropriate group-farming policies under the heavy industrial development is a substantial challenge to the Japanese government, the government must be always careful to revise old policies and to foster new ones.

Our study in different Asian countries reveals that the number of farm laborers in farming sectors, economic development, degree of industrialization, government policies, and traditional values such as assigning a higher priority to group – rather than individual – outcomes are all essential to group farming organization. These elements also determine the characteristics of a group farming organization. In Bangladesh and India, where industrialization is low and farm laborers abound, group farming is labor-intensive and non-business-oriented, and of a subsistence type. In Korea and Japan, with the opposite situation, group farming is capital-intensive and business-oriented.

The study leads us to believe that the replication of Japanese-type group farming may be possible in a country where the agricultural sector has scarcity of farm laborers, economic development is quite high, the level of industrialization is high, and the government has formulated distinct group farming policies. Korea

and Malaysia fall within this category. In addition, Korea can adopt Japanese-type group farming policies more directly than Malaysia because the former has additionally some traditional values similar to Japan's. If developing countries such as Bangladesh and India establish group farming, when necessary, they should adopt policies that decrease farm laborers in the farming sector. They can do this not only by emphasizing general industrialization in urban area but also by assigning greater importance to non-agricultural activities in rural areas such as rural-based industrialization. While this would contribute to overall economic and (rural and urban) industrial development, it would also turn from group farming labor-intensive and subsistence to capital-intensive and business-oriented. The latter appears to us more advisable than the former.

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