

AGRI-FOOD SUPPLY CHAIN DEVELOPMENT BY VARIOUS CHAIN LEADERS: CASE STUDIES IN JAPAN AND NEW CONCEPT OF HIGH NATURE VALUE

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ABSTRACT

In this paper, firstly several different agri-food chain leaders are to be considered, such as aged and/or women farmers, supermarkets, consumers' cooperatives, and big general trade company. Secondly the high nature value of food is to be dealt with the matters Japanese consumers are concerned. The diligent working attitude of aged persons and women has led to the production in small amount, in fresh, with low pesticide use and in many varieties. Producers sell products in different modalities such as renting a space from cooperatives, consignment to cooperatives at direct sales shop, and buying-out of all products by agricultural cooperatives. Moreover some farmers shipment groups in city carry out the direct selling to supermarkets in contract. Japan's consumer cooperatives conduct two pillar businesses of "Sanchoku-Teikei" (direct transaction of food and coop-PB products under contract with producers) and operating supermarket-level stores. The co-ops have developed joint buying system in which members form small group units of 5-10 households called "Han" through which they place advance orders for various kinds of goods. The big general trading company ("Sogo Shosha") has the power for developing new businesses through closer ties with local government to assist local areas in taking new approaches to agriculture to achieve regional redevelopment.

Japanese consumers seek agricultural products and their processed food with high quality, and are incessantly renewing the concept and contents regarding the high value. A movement linking consumers to agriculturalists has started, in which the concept is defined as the nature management agriculture and the products produced under it are recognized as "high nature value".

INTRODUCTION

This paper deals with current development of agri-food system by several different chain actors to support domestic agriculture and rural society under The New Basic law and WTO free trade rules. The Basic Law on Food, Agriculture and Rural Areas enforced on July 16, 1999 thoroughly reviews the postwar agricultural policies under the Agricultural Basic Law and sets up a new policy-making scheme under the four new principles: "securing a stable food supply", "fulfillment of multi-functionality of agriculture", "sustainable development of agriculture", and "promotion of rural areas".

Japan accepted the Uruguay Round Agreement on Agriculture, so it is extremely important that the basic principles of the newly enacted Basic Law on Food, Agriculture and Rural Areas and accompanying measures must be properly recognized in accordance with global rules. Japanese Government strongly insists the idea of the importance of multi-functionality of agriculture, such as food security, environmental protection, viability of rural areas, and food safety.

1. CURRENT CHARACTERISTICS OF AGRI-FOOD SUPPLY SYSTEM IN JAPAN

The food self-sufficiency ratio in Japan showed sharp decreases during the period from 1965 to 1998, down from 73% to 40% on a calorie supply and 62% to 37% on a grain basis. From a long-term standpoint, one of the major factors behind this declining trend is fundamental changes in Japanese dietary patterns, as reflected in the increasing consumption of animal products and fats and oils, which are largely dependent on imported feed grains, and oilseeds due to the restraints on national land and ever decreasing rice consumption. Another major factor behind this declining trend of domestic farm products supply comes from agricultural structure, especially the lack and aging of family labor. To secure a stable food supply, it is essential to make efforts to increase domestic production first. Not only farmers but also consumers, manufactures, distributors and other related parties should create new agri-food chains together which produce much better quality than imported food.

(1) Characteristics of Agriculture and Rural Area

Japan is a long, narrow chain of islands stretching 3,300 km from the sub-arctic to the sub-tropical zones. Mountainous areas account for 67% of the total national land and there is only limited flat land available that are substantially urbanized. Under these circumstances, the ratio of farmland is about 13% of the total national land, and the cultivated land under management per farm household is very small with about 1.6 hectares. The small size of farming operations and difficulties in controlling water use at the individual farm level required collective control and use of water, facilitating the formation of farming communities. Community rules established to ensure smooth operations had a considerable influence in fostering the spirit of mutual aid and creating and passing on traditional rural cultures. The need for reorganizing regional agriculture has arisen in Japan because of overproduction of rice and other farm products, and of urbanization in rural areas since the late 1960's. Production adjustment measures have led to the abandonment of cultivated lands, such as paddy fields, upland fields, temporary meadow and land under permanent crops. In the 2000 Agricultural Census, cultivated land abandoned by commercial and non-commercial farm households was 210,000 hectares, an increase of 48,000 hectares (29.8%) compared with the previous survey in 1995. The proportion of abandoned cultivated land to all cultivated land reached 5.1%. Total number of farm households was 3,120,000 by the decreasing ratio of 9.4%. The rural population has been aging more rapidly than the urban population because young people have been tending to leave rural areas to live in urban areas, and the problems arising from the increased number of aged people need to be dealt with sooner in rural areas than in urban areas. The proportion of agricultural successors mainly engaged in farming was 7%. In short, regional agricultural structure has changed in four ways:

- (i) By destroying the cooperation system of family farming and agricultural community on hamlet level;
- (ii) By transforming farmland to urban land;
- (iii) By increasing the non-agricultural population in rural villages; and
- (iv) By decreasing multi-functionality in farming concerning nature

For the purpose to revitalize agriculture and rural society, national and local governments, farmers, consumers, manufactures, wholesalers, retailers and any other related parties should work together under the proper role sharing to develop new economic systems like direct agri-food supply chains in partnership with producers.

(2) Development of family farm households by types of regular farm workers

In order to further understand the reasons of sustainability of individual farm households, which have the predominant share in the total farm households, they are analyzed from the aspect of engagement of regular farm workers. Such an analysis is based on the types of regular farm workers, who work in agriculture for more than 150 days a year and their involvement in farm management.

Agricultural households are accordingly classified into the following five groups:

- (i) “Farm households without regular farm workers”: Commercial farm households “without regular farm workers” according to the Agricultural Census;
- (ii) “Farm households with aged regular farm workers”: commercial farm households with “regular farm workers of 60 years old and more”;
- (iii) “Farm households with female regular farm workers”: agricultural households with “only female regular farm workers”;
- (iv) “Farm households with family member regular farm workers”: farm households with “male regular farm workers of less than 60 years old”; and
- (v) Family farm households with hired labor: farm households “hiring permanent agricultural laborers”

Among these groups, the numbers of “farm households with aged regular farm workers” and “family farm households with hired labor” have been increasing. The latter group, though its share is as small as 1% of total farm households, has increased 2.2 times from 1990 to 1995 and by 29.7% from 1995 to 2000. Number of households belonging to the former group of “agricultural management with aged regular farm workers” has increased by 3.6% for last five years from a decrease in previous years and now stands at the second largest group with a share of 29%. On the other hand, “farm households with family regular farm worker” with male regular farm workers of less than 60 years old has decreased to less than a half for the last ten years, and becomes much less than that of “farm households with aged regular farm workers” with the present share of 14.9%. While “farm households with female regular farm workers” have been also decreasing, their declining trend becomes slower for last five years and kept the share of over 5%. Individual farm households with the highest share is the group of “farm households without regular farm workers”, accounting for 1,300,000 households with a share of 55.7% in 2000, but its declining trend has accelerated for last five years. The number of households belonging to farm households with aged regular farm workers and that with female regular farm workers combined together has kept over 30% through the last decade and in an increasing trend, which suggests the importance of these types in maintaining family farm households.

Table 1 Types of Family Farm Households and Their Changes

	Number (000, %)			Increase/decrease(%)	
	1990	1995	2000	1995/1990	2000/1995
Farm households without regular farm workers	1,671.1 (56.3)	1,553.9 (58.6)	1,300.9 (55.7)	-7.0	-14.4
Farm households with aged regular farm workers	675.7 (22.7)	662.7 (25.0)	686.5 (29.4)	-2.0	+3.6
Farm households with female regular farm workers	238.4 (8.0)	185.6 (7.0)	170.7 (7.3)	-22.1	-8.0
Farm households with family member regular farm workers	623.8 (21.0)	434.8 (16.4)	349.3 (14.9)	-30.3	-19.7

Family farm households with hired labor	8.2 (0.3)	18.2 (0.7)	23.6 (10.1)	2.2 times	+29.7
Total	2,970.5 (100.0)	2,651.4 (100.0)	2,336.7 (100.0)	-10.7	-11.9

Notes: 1. “Farm households without regular farm workers” correspond to “no regular farm workers” in the Agricultural Census.

2. “Farm households with aged regular farm workers” are those commercial farm households with “male regular farm workers of more than 60 years old”.

3. Farm households with female regular farm workers” are those commercial farm households with “only female regular farm workers”.

Income formation of family management by types of regular farm worker

According to Farm Income Statistic showing the income formation of family management units by types of family regular farm worker, the following three observations are derived:

Firstly the farm households without regular farm worker with sales value of agricultural products of less than 500,000 yen constitute more than a half of the total, while those with the sales over 2 million yen only 7%. The average agricultural income amounts to 260,000 yen, equivalent to only 3% of the total household income of 8,620,000 yen. In view of such a low share of agricultural income in household budget, the income from farm households is as low as only serving as a pocket money.

Secondly in “the farm households with aged regular farm workers”, the number of households with an income less than 500,000 yen are only one-fourth of the total, while they spread from 500,000 yen to 5 million yen classes. Moreover a sizeable number of households are found in the income class of around 10 million yen, which exceeds over those of “farm households with female regular farm workers”. It suggests that some aged people have strong willingness to farming and high management capability.

The third characteristics is that the average agricultural income of “the farm households with female regular farm workers” amounts to 1,460,000 yen, which is 660,000 yen higher than the average income of farm household with male regular farm workers, and the average disposal income per household member is 2,050,000 yen, which is higher by 600,000 yen compared with the male managed units. In view of the average sales value of 3,940,000 yen of the female managed units, they have economically viable and the contribution of women to household economy is high. It demonstrates that the women managed units have been developing as viable units, which reflects the successful growth of women managers.

2. DEVELOPMENT OF AGRI-FOOD SUPPLY CHAIN BY DIFFERENT CHAIN LEADRES

(1) An Aged and/or Female Farmers Driven Chain Supported by Agricultural Cooperatives: The Case of JA Kanra-Tomioka Agricultural Cooperative

Aged people are so far regarded not to be in active service in farm management units. However today as the average age of people has become longer, many aged people are willing to work. When due consideration is paid to the working conditions, these people can be in active service throughout their life in playing the central role of family agriculture(M.Nagamatsu ,2002). As the case in which aged people are active as the central player of area agriculture, the JA Kanra-Tomioka Agricultural Cooperative is

taken up. The JA Kanra-Tomioka born in 1994 as a result of merger of cooperatives of neighboring cities, towns and villages in the midst of depression of the agriculture was required to set forth the recovery measures for agriculture of the area.

It prepared an regional agriculture development plan called “Vegetable Land Kaburano-sato”, and started a small promotion project of agricultural households named “the Challenge 21 Program” and a vegetable production project under “the intensive vegetable promotion program”.

“The Challenge 21 Program” aims at producing a minimum of four crop items on a land of 40 ares (1 are=100m²) with investment in facilities amounting to 400,000 yen, and at earning 4,000,000 yen to 5,000,000 yen annually per household. The program thus intends to create small producers who produce many items each in small amount. The JA Kanra-Tomioka changed the direction of development, in which individual farm households switch the marketing of products from outside the prefecture to within the local area.

- Construction of outlets and “In-shops”

At the outset, the cooperative opened in 1996 a direct sales place “Shokusai-kan” as the outlet of products of small-sized agricultural households. Member producers can bring and sell vegetables, fruits, flowers, processed products and any other goods. “Shokusai-kan” became popular among the local consumers and prosperous in a short period. In the following year of 1997 another shop Momijidaira-branch opened. On the basis of success of these two “Shokusai-kan” the cooperative opened specialized sections to sell “morning harvested and full season vegetables series” inside bulk sellers and consumers’ cooperatives (called “In-shops”). As the required cost is less, “In-shops” have increased to over 20 in three years. At “In-shops”, failures of delivery in terms of contracted amount and items are not accepted. Due to the facts that in “In-shops” vegetables are sold in fresh as they are harvested in the morning of selling day and in full season, in small amounts and reasonable prices, in many varieties, and respective producers being identifiable, these shops have attracted a great number of urban consumers, and their turnover has been continuously expanding. The turnover in the fiscal year 2000 amounted to 590 million yen.

Since there is no such a direct marketing system connecting an area and cities, it attracts a nation-wide attention.

- A new image of producers

Women and aged people play the central role in the direct marketing system. More than 80% of shippers are the people of the age over 50 years old. Even those who are over 60 years old constitute 56% of the sellers. As the male and female ratio is 70 to 30, men exceed women at least in title, but many couples engage in the work. Shipping members were initially 32, which increased to 926 at the end of August 2001 after eight years.

A majority (56%) of the 600 members in the order of the highest selling value is the over 60 years old. As such “Challenge 21” has succeeded to find out and bring up the potential commercial agricultural households, particularly aged producers. As a result, due to expanded activities of these agricultural households, the idled farmland decreased from 900 hectares in 1995 to 580 hectares in 2000 .

Table 2 The Challenge 21 Program: Age Distribution of Members

(As of August 2001)

Age class	Less than 30	30-40	40-50	50-60	60-70	70-80	More than 80	Total
No. of members	3	24	112	267	387	129	4	926
Composition (%)	0.3	2.5	12.1	28.8	41.8	13.9	0.4	100.0

- Management of “Shokusai-kan” and “In-shops”

“Shokusai-kan” is operated by a managing committee, a producers’ organization. In principle, individual shippers (producers) should be responsible to shipping shape, pricing, attaching bar-cord seals, and taking over of unsold products. This in turn enhances the self-consciousness and willingness of shippers, not leaving matters to the cooperative.

Trades with the In-shops are carried out through negotiated contract transactions. For the purpose, three parties, i.e., management committee, JA and bulk sellers consult every Friday to determine the delivery goods for the following week. No failure of delivery is allowed. The commission of “Shokusai-kan” as well as “In-shops” is 11%, lower than the rate of 12-13% in case of shipment to the conventional markets.

- A new marketing channel

The marketing channel of the JA Kanra-Tomioka comprises of: (i) Two shops under “Shokusai-kan”; (ii) 17 “In-shops” inside of bulk sellers and cooperatives in Tokyo Metropolitan Area (including the section in the JA Kanra-Tomioka); (iii) “comprehensive negotiated transactions” with bulk sellers and consumers’ cooperatives; (iv) shipment of high quality vegetables produced under the “intensive vegetable promotion project” to conventional markets; and (v) direct sales of gift goods. Thanks to promotion of small-scale producers, these channels have expanded in complementing each other. In particular the sales in the Tokyo Metropolitan area has considerably increased as initially expected.

Above all, the diligent working attitude of aged persons and women has led to the production in small amount, in fresh, with low pesticide use (confidence and safely) and in many varieties, which reorganized the producers who were giving up the shipment under the prevailing situation of mass production with standardization. The policy has been supported by consumers in both local and urban areas, and has led to the success of undertaking.

(2) Supermarket Driven Chain: Contract Between the Seiyu Supermarket and A Shipment Cooperative

There are a variety of direct sales activities in Tokyo Metropolitan Prefecture. In this section, taking a case developing a new direct sales system, its significance and direction of development in the multiple marketing channels are discussed.

The mergers of cooperatives in Tokyo Metropolitan Prefecture completed by April 2001, as a result there are 17 merged cooperatives at present. Each of these cooperatives opens and operates joint sales shops to propagate the vegetables made in Tokyo, responding to the Tokyo Home Vegetables Supply Program implemented by the Metropolitan Government. The shops are in many types such as permanent joint sales shops, A-coop stores, direct sales in special occasions like agricultural fairs in cooperative facilities, regular direct sales at the morning market and Saturday market.

Producers sell products in different modalities such as renting a space from cooperatives, consignment to cooperatives at direct sales shop, and buying-out of all products by cooperatives. Moreover some cooperatives carry out the direct selling to supermarkets in contract as described below. Recently cooperatives have been developing a new modality of direct selling, different from the conventional A-coop, in which cooperatives make a franchise contract with convenience store chains, and sell the local products like vegetables under the special clauses of contract.

Direct sales at Seiyu Stores of the Tanashi-Seiyu Shipment Cooperative

Seiyu has a long history to sell locally produced vegetables under contract, while it was only in 1999 when the JA Tokyo-Agri in Nishi-Tokyo City, entrusted by the Tanashi-Seiyu Shipment Cooperative, formally concluded the contracted production of local vegetables. In fact in 1972 the Seiyu Foods, a subsidiary body and fresh food department of the Seiyu Company, organized the Mitsugashima Shipment Cooperative as the first shipment cooperative to procure fresh and locally produced vegetables. The Tanashi-Seiyu Shipment Cooperative was established in 1974 as the second one, which at present ships and directly sells more than 25 items of locally produced vegetables at nearby Seiyu Stores. Since the Seiyu developed “Fully Ripen Tomato” in coalition with the Nukui Horticulture Cooperative in Nagao Prefecture as its first PB vegetable, it has developed such brands as “Morning Harvested Lettuce” and “Daikon Attached With Leaves” in which the Tanashi-Seiyu Shipment Cooperative played the role of development base. At that time, trades between the Tanashi-Seiyu Shipment Cooperative and the Seiyu Foods were limited to spinach and “Morning Harvested Lettuce”. Every week shipped amounts and prices were determined in negotiations between Seiyu buyers and seven cooperative members, while the cooperative consigned the Jyosei-Marushin Vegetables and Fruits Wholesale Market, a local wholesaler, to carry out the operations of settlement and transfer of sales proceeds and product transportation to Seiyu Stores with a commission of 10%. Afterward in 1985 as the Seibu Vegetables and Fruits Wholesale Market was established, these operations were transferred to the Seiyu Seika, a wholesaler of the market. The cooperative paid a 8.5% commission for sales settlement, transportation, fee of carriers, including other material cost.

In the latter half of the 1990’s, the Seiyu conducted structural reform, thus in 1999 the Seibu Vegetables and Fruits Wholesale Market was dissolved, and in 2001 the Seiyu Centers were separated as the Seiyu Foods was merged into the Seiyu Headquarters. With these changes, transportation and material costs so far borne by the Seiyu were transferred to producers, which amounts to 8 million yen, or about 4% of the total sales of 200 million yen.

Although the commission rate of 8.5% of the Seiyu-Agri has been kept after 1999, the cooperative’s tasks are limited to receiving the orders from Seiyu Stores and engaging in the accounting work. Cooperative members directly carry out the product assembling and transportation to the Seiyu Stores, while transportation of products to the distribution centers located in Kawagoe, Tokohama, Haijima and Yachiyo by hiring transporters.

Members of the Tanashi-Seiyu Shipment Cooperative has increased from 7 at the beginning to 13, then together with 11 members belonging to the former Tanashi Agricultural Cooperative in 1999, it has now 24 members. The average age of the

members are in the 50's and many have the successors. The farm with the largest size operates 2 hectares of land. In larger sized farms, heavy vegetables such as "daikon (Japanese radish)" and cabbage are grown, while in smaller sized farms leaf vegetables such as spinach and "komatsuna (a kind of Chinese cabbage)" were produced in 5-6 crops in greenhouses or 2 crops in open fields per year. Recently new items like herbs and "Kyo vegetables (vegetable varieties originated in Kyoto)" have been introduced.

There are two shipment channels to the Seiyu. 69% of total shipment are marketed to the nearby three Seiyu Stores including the Tanashi Store, and the remaining 40% are to the Seiyu Centers. Members belonged to the former Tanashi Agricultural Cooperative ship only to the Seiyu Stores, while the original members make the shipment to the Seiyu Centers. The advanced order adjustment meetings, which at the same time dispose unsold goods were held every week before, but, partially affected by an increase in imported vegetables, the meetings are now held twice a week on Tuesdays and Fridays. Under these conditions, adjustments of transportation among the Seiyu Centers become more frequent thus the increasing transferring cost puts a burden on cooperative. In fact the cost to transport to the Yokohama Center is 40 yen per carrier, the twice to the nearby stores. By pooling this expenditure together with the retail proceeds, the negative effects to the producers shipping products to the Seiyu Centers are mitigated. In such, the problem that all amount of locally produced vegetables are not consumed in the local area is resolved through the demand and supply adjustment system covering the Seiyu as a whole. Yet as producers bear the additional burden, it may be the time to consider another sales channel initiated by producers.

On the other hand, the Seiyu intends to strengthen the system since the consumers are increasingly looking for fresh, locally produced and reasonably priced vegetables. It plans to increase the present 50 stores, which trade local vegetables in cooperation with agricultural cooperative, shipment cooperative and wholesalers, to 100 stores in 2001.

(3) Consumer Cooperatives Driven Chain" Sanchoku-Teikei

Japan's consumer cooperatives conduct two pillar businesses of "Sanchoku-Teikei" (direct transaction of food and coop-PB products under contract with producers) and operating supermarket-level stores. The co-ops have developed joint buying system in which members form small group units of 5-10 households called "Han" through which they place advance orders for various kinds of goods. The joint buying system and "Han" group unit were established in the 1950's and early 1960's, when consumer were worried about threatening living conditions of food safely and environment caused by agricultural chemicals, artificial food additives, wrong labeling. They also wished to know proper information how to produce agricultural products and processed food.

During the rapid economic growth of Japan in the 1960's, co-ops also grew rapidly and not only individual coops but also the Japanese Consumers' Union developed new products. Originally the activities of joint buying, such as the circulation of order forms, totaling, submission of orders, receipt of goods, and collection of money were carried out at the "Han" level. With the introduction of computerized systems in the 1990's, it becomes easy for individual members to place individual orders directly. As the joint buying system grew, coop members tried to reform the organizational structure of coop. They established such organs as unit leaders' council and steering committees. The group unit "Han" and the steering committees have become basis units for grass roots membership activities.

The development of coop products can be seen as the starting point for activities undertaken by members. The coops have a specialized committee for inspection and development of coop products. The committee members participate in all phases of products development, including determination of the safety, quality, price, producer of the products and comparison of samples and conducting of development test.

In the case of agricultural products, the committee of inspection and development for coop products takes several contract negotiations with farmers concerning kinds of pesticides, chemical fertilizers, and concentrated fodder that farmers will use, how much and how often they will be applied, and how prices will be determined. Furthermore, in recent years, the coop members concern the overall agri-food supply system, including agricultural methods and farming structure mentioned above.

As exchanges between consumers and farmers have become more active, consumers have recognized that multi-functional roles demonstrated through appropriate agricultural production activities in rural areas include roles to preserve national land and the natural environment, foster water resources, create scenic landscapes, and pass on cultures.

They evaluate high nature value farming systems, which means a low intensity farming systems with highly diverse habitat types

(4) Big Trading Company Driven Chain: A Case of Mitsui & Co. Ltd.

The Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF) established a new foundation, the “School for 21st Century Farm Community Development”, in 1990. MAFF sought the full cooperation of the private sector to help the foundation achieve its objective of revitalizing farm communities. Recognizing that big general trading company (“Sogo Shosha”) has the power for developing new businesses through closer ties with regional communities, in 1992 Mitsui established “New Farm 21”, a cooperative of about 40 companies in such fields as food products, life sciences, fertilizers, machinery, finance, distribution and R&D.

The objectives of “New Farm 21” are following:

- Provide support for the development of new industries and enterprises in regional communities
- Establish close working ties with government agencies and business organizations at the national and local levels and make proposals for new projects
- Work to identify new business opportunities likely to emerge as more and more government functions were outsourced to the private sector. Mitsui has identified the outsourcing of public services as one of its most important market opportunities in the years ahead
- Take advantage of the opportunities to build closer cooperation among Mitsui’s 39 domestic offices and each of the Company’s operating groups with the aim of identifying new business possibilities.

As part of this, Mitsui has set up study groups to examine opportunities emerging along with government reform and in such new growth fields as nursing and insurance for senior citizens, organic farm products, and gardening. As a secondary objective, Mitsui has also directed its domestic offices to more aggressively approach local governments to identify new business areas. To date, Mitsui has signed consulting contracts with 35 regional community governments and 10 of these are ongoing. In marketing these consulting services, Mitsui places emphasis on assisting local communities in actually

implementing activities based on its know-how and full range of skills as a “Sogo Shosha”, including the organization of a team of product and service vendors as well as financing. As many issues facing rural communities involve environment problems that cannot be confined to individual communities or governmental jurisdictions, Mitsui gives due emphasis on these issues and markets its services on a region wide basis. For example, to contribute to environmental quality, Mitsui offers proposals for systems to economically recycle stockbreeding waste.

A related consideration in setting up this recycling system was the growing interest in organic produce. This has arisen both because of growing consumer interest in healthful agricultural products and from environmental considerations, as the continued use of chemical fertilizers tends to degrade the quality of the soil. The appropriate corrective measure is to use compost or other natural fertilizers periodically. To assure that the demand can be met, Mitsui has also established distribution channels for natural composts to farms around Japan.

Mitsui also assists local areas in taking new approaches to agriculture to achieve regional redevelopment.

Mitsui’s consulting services for Akasaka Town, a community of 5,500 in Okayama Prefecture, provide a good example of activities to maintain the environment and contribute to regional culture and economic development. As a general urban development consultant since 1993, Mitsui has provided advice closely tailored to local needs on educational and other issues. Specific activities have included working closely with teachers and people of the community to design and rebuild the town’s elementary school. This was the first case of this type with local participation in Japan and drew attention throughout the educational community. Mitsui has also provided advice to further the development of the town’s agricultural sector. Akasaka is well known in the region for its production of Asahi Rice (a top quality variety). To increase the value added of the rice crop, Mitsui recommended the establishment of a cooking and processing facility to make cooked rice available for sushi shops and companies that prepare box lunches in the region. Mitsui secured a partner for the venture, Fuyo Bussan Co., Ltd., and an Osaka-based food product company with outlets in supermarkets and close ties with leading retailers.

3. ORGANIC AGRICULTURE AND NEW CONCEPTS OF “HIGH NATURE VALUE” & “NATURE MANAGEMENT AGRICULTURE”

Japanese consumers seek agricultural products and their processed food with high quality, and are incessantly renewing the concept and contents regarding the high value. In view of mistrusts to food safety of agricultural products produced in the conventional farming, consumers are searching for safer and more reliable products and farming methods away from the farming methods polluting the environment.

At present marketing channels of organic agricultural products are diversified to (i) the producers-consumers coalition; (ii) specialized stores to natural food; (iii) consumers’ cooperative; and (iv) supermarkets and department stores.

At the food section in department stores, imported organic food fiercely competes with those produced in the country. Since the producers-consumers coalition” was the main stream of organic production, a consensus between producers and consumers was formed on the basis of the mutual understanding, thus in case when pesticides need to be applied, an inspection and certification by the third party was not required. However

as the guidelines of organically produced products were finally agreed in the CODEX committee, it needed to build an inspection and certification system of organic products. It actually started to be implemented in 2001 when the Japan Agricultural Standard (JAS) Law was amended.

Japanese consumers after the 1990's have moved from the safety and security of food to a new stage of nature protection movement. They are interested in not only securing agricultural products not depending on pesticides and chemical fertilizers but also to build an agriculture and rural area, which protect nature and biological diversities from being contaminated by modern farming methods. A movement linking consumers to agriculturalists has started, in which this concept is defined as the nature management agriculture and the products produced under it are recognized as "high nature value" (Baldock and Beaufoy, 1993).

The basic concept of nature management farms is defined in the following ways.

Nature management farms produce high nature value

The high nature value production contains the following functions:

- (i) To produce agricultural and forestry products with high added value (high natural quality) in utilizing natural resources (such as land, climate, wild life etc.) endowed in the area at a high degree (i.e. using farming systems suitable to natural ecological systems);
- (ii) In managing natural environment and biological diversities of the area at a high degree, to achieve high living standard with high quality in agricultural and mountain villages, thus to provide "environment service goods" (i.e. natural landscape, wild life habits and historical and cultural landscapes, recreation sites etc.) to the visitors (i.e. consumers of environment services); and
- (iii) To provide the basic environment to human life such as air, water, energy etc. produced by the nature of area including water sources, rivers, soils, forests, topography, climate, ecological systems of wild life etc., and further provide their newly developed functions to urban society

Agricultural production methods

Methods of agricultural production should be based on organic farming and welfare raising systems of livestock suitable to the natural and ecological conditions of area. Livestock are not regarded as "an agricultural product" but as "a sensitive life" their physical and mental health are protected.

Farm management plan including land utilization toward nature management

Individual farms formulate the farm management plan including land utilization toward nature management (i.e. land management in which agricultural and forest lands are utilized for protecting natural and ecological systems), and the loss (or decrease) in income caused by the implementation of the plan should be socially compensated. Actual compensation would be carried out through a variety of contracts and agreements between producers and consumers (reflected in the prices of direct transaction of food between producers and consumers), taxpayers (in the forms of fiscal subsidies of local, prefecture and central governments) or fund contributors (as fund trusts etc.)

5. CONCLUSION

Consumers' concern of food safety has been increasing with the trend moving to environmental conservation. Japanese coops have much experienced the business activities of developing consumer-driven agri-food supply system and its products since the 1960's. In 21st century they will try to revitalize rural community by making new agri-food supply chains, which can produce environmental friendly food.

Big general trading companies having been engaged in importing food begin to adopt new strategy of promoting domestic agri-food chain development. Especially they are interested in building ecological and recycle society. The recycle system must be realized by integrating agri-food supply chain and good garbage management chain.

The food industry is also required to make efforts in reducing damage to the environment caused by their operations, through waste reduction and recycling. A certain mechanism needs to be developed so that the food industry, farmers, consumers and national and local governments can work together in the socio-economic system founded on cyclical use of resources with proper role sharing.

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