

Alternative Approaches to Rural Development

Yasuroku Osa*

Japan is located in Asia monsoon zone. Its climate is mild and rainy throughout the year. As regards the climate, Japan is one of the most suitable countries for agriculture in the world. However, our country's agriculture is now declining year after year for the economical reasons. If this is the future of agriculture in the most economical developed country in Asia, other countries will follow the same path. Then, which countries will supply the agricultural products to us in the future? We can say that there is no such country. To sustain agriculture, the ecosystem and the logic of inhabitants should be preceded the economic efficiency.

Keywords: agriculture, ecosystem, logic of inhabitants, economic efficiency

I. The present condition of modernization of Japanese agriculture

1. Decline of agricultural production capacity

1) Decrease in agricultural products

The supply of domestic agricultural products is decreasing year after year in Japan. Cereal yields have been decreasing yearly from 17.1 million tons in 1960 to 10.7 million tons in 1991. Production of potatoes has been declining from 10.2 million tons in 1961 to 4.8 million tons in 1991. The yields of vegetables attained a peak of 16.9 million tons in 1976 and decreased yearly to 15.3 million tons in 1991. Production of fruit reached a peak of 6.8 million tons and decreased yearly to 4.3 million tons in 1991. The livestock products are increasing, but we need to take account of decreasing in self-sufficiency rate of feed.

Agricultural products in Saga prefecture have been also decreasing in recent years. The yields of cereals and potatoes have been gradually declining. Pro-

* Professor, Faculty of Economics, Saga University, Japan, Tel: 81-952-28-8413, E-mail: osay@cc.saga-u.ac.jp

duction of vegetables has reached the top recently. Fruit has been rapidly decreasing since 1978.

2) Decrease in cultivated areas

Japanese cultivated areas have been decreasing year by year since they hit a peak of 6,086 thousand hectares in 1961. Since then, they became 4,794 thousand hectares in 2001, 78.8% of its peak. Areas under cultivation have been constantly decreasing from 8,270 thousand hectares in 1956 to 4,520 thousand hectares in 2001. The utilization rate of arable land decreased from 137.6 % to 94.3% in the same period. Waste agricultural land is striking nowadays.

Uncultivated areas have been increasing from 36 thousand hectares in 1960 to 160 thousand hectares in 1990. In addition, abandoned areas of cultivation have been increasing from 99 thousand hectares in 1975 to 151 thousand hectares in 1990.

In Saga prefecture, cultivated areas decreased yearly from 80,100 hectares in 1965, which it was supposedly its peak, to 57,600 hectares in 2001, 71.9% of 1965. Its decline rate of 28.1% was higher than that of Japan, 21.2%. Capacity utilization of agricultural land was higher than that of Japan every year and increased from 124.7% in 1960 to 136.5% in 1987. However, it has decreased yearly to 130.4% in 2001 since then.

3) Mechanization, chemicalization and installing of agricultural production

Japanese agricultural mechanization, chemicalization and installing were rapidly advancing. For example, in Saga prefecture, the possession of the power cultivators and agricultural tractors per a farm household increased from 0.77 in 1975 to 1.11 in 1990. That of the agricultural tractor with more than 15 h.p. increased from 0.06 to 0.46 in the same period. That of the combines did from 0.09 to 0.45, and that of the power transplanting machines of rice seedlings did from 0.22 to 0.63.

By industrialization of agriculture, necessary working hours for one product decreased drastically. For example, working hours of rice production per 10 ares of the paddy field in Saga prefecture decreased from 74.8 hours in 1975 to 29.9 hours in 2001.

4) Relative decline of agricultural income to gross income of farmer's households

The gross agricultural income of farm households is increasing. However, the expenditure on agricultural management is increasing more rapidly. Therefore, agricultural income does not increase easily. For example, the agricultural income of average households of farmer in Saga prefecture increased yearly until 1,562 thousand Yen in 1978. However, after the period, it was decreasing gradually and became 1,235 thousand Yen in 1991. Between 1978 and 1991, the gross agricultural income increased from 2,772 thousand Yen to 4,006 thousand Yen (1.4 times), but the expenditure on agricultural management increased more rapidly from 1,210 thousand Yen to 2,772 thousand Yen (2.3 times).

Comparing the agricultural income per one-day work with that of the manufacturing wage in Japan, the agricultural income was 78.0% of the manufacturing wage in 1965. The rate was declining year by year after that and became only 31.8% in 1993.

Total agricultural working hours of farmer's family members are inevitably getting shorter and shorter and the other non-agricultural working hours are gradually becoming longer. As a result, the non-agricultural income of households of farmer increased rapidly and the agricultural income relatively declined yearly.

5) Decreasing farmers

[Visible decrease in farmers]

The family members engaged in farming had been declining from 12.0 million persons in 1960 to 3.4 million persons in 1993 in Japan.

In Saga prefecture, between 1970 and 1990, the more the family members engaged in their own agricultural works, the more rapidly the number of them tended to decline. The members engaged in only their own agricultural works decreased from 128,707 persons in 1965 to 70,019 persons in 1990.

[New graduates engaged in agriculture]

The new graduates who engaged in agriculture had been declining from 9,900 persons in 1975 to 1,800 persons in 1993 in Japan. This number was only 1.5%

of total new graduates who were from farmer houses and newly graduated from the schools.

The new part-time farmers had been also declining from 32.5 thousand persons in 1980 to 29.1 thousand persons in 1993.

As for Saga prefecture, the new graduates who engaged in agriculture were 628 persons in 1970. The percentage to total new graduates, 13,609 persons was 4.6%. Subsequently, the number decreased yearly and became 52 persons in 1992 and the percentage declined to 0.8%.

[Increase in aged farmers]

In Saga prefecture, while the farmers who engaged in their own agricultural works more than 150 days in a year have been decreasing constantly since 1965, the farmers over 60 years old have been increasing from 12,151 persons in 1980 to 16,589 persons in 1990. The percentage to total farmers was 16.1% in 1965, 18.5% in 1975 and 37.9% in 1990.

[Increase in part-time farmers]

In Saga prefecture, the number of persons who engaged in non-agricultural works in a year increased from 100,130 people in 1965 to 122,468 people in 1975. The number has been decreased after 1975, but the number of farm households have decreased more rapidly. Accordingly, the number of persons per a farm household increased from 1.34 people in 1965 to 1.84 people in 1985. The number among them who engaged in only non-agricultural works have increased yearly since 1970 as the number mainly engaged in agricultural works decreased in same period.

6) Decrease in farm households

In Saga prefecture, the number of farm households decreased yearly from 74,948 households in 1965 to 50,296 households in 1990. The percentage of decreasing farm households every 5 years were gradually increasing, namely 3.2% in 1970, 6.7% in 1975, 7.4% in 1980, 8.0% in 1985 and 12.8% in 1990. The number of the full-time farm households also decreased yearly from 17,326 households to 7,202 households in same period. The percentage of full-time farm households decreased rapidly from 23.1% in 1965 to 15.8% in 1970 and 11.3% in

1975. Although it increased slowly after the period, it was only 14.3% in 1990. The number of the part-time farm households also decreased from 61,075 households in 1970 to 43,037 households in 1990. However, the number of the farm households with other main regular jobs increased yearly from 15,814 households in 1965 to 26,044 households in 1990. The percentage to total farm households increased from 21.1% to 51.8% in the same period.

[Decline of dependency rate on agriculture]

Economically, the farm households are gradually becoming the non-farm households. While agricultural income does not increase easily, non-agricultural income is increasing rapidly. The dependency rate on agriculture of average households of farmer in Saga prefecture that is the rate of agricultural income to the income of farm household was 56.3% in 1969. However, it became 24.5% in 1992.

2. Increase in imported agricultural products

The amount of imported agricultural products to Japan increased from 884 million dollars in 1960 to 29,552 million dollars in 1992, namely 33.4 times. In the same period, the amount of domestic agricultural products increased from 14,930 billion Yen to 73,460 billion Yen, namely 4.9 times.

[Expansion of oversea growing area]

The oversea growing areas whose products are exported to Japan supposedly increased from 8.13 million hectares in 1960 to 11.42 million hectares in 1992. On the other hand, areas under cultivation in Japan decreased from 8.13 million hectares to 5.21 million hectares. Therefore, both growing areas increased from 11.42 million hectares to 17.24 million hectares and the weight of oversea growing areas increased from 28.8% to 69.8%.

3. Declining self-sufficiency rate of agricultural products

The Japanese composite self-sufficiency rate of agricultural products for staple food declined from 91% in 1960 to 58% in 1993. The self sufficiency rate of supplied calories by agricultural products declined from 79% to 37% in same

period.

According to The Survey of Fruit and Vegetables Wholesale Market of Saga Prefecture, the percentages of fruit and vegetables which were produced by farmers in Saga prefecture and shipped at wholesale markets in Saga prefecture have been gradually decreasing. Total quantity of vegetables arrived at wholesale markets in Saga prefecture have increased rapidly from 44,590 tons in 1970 to 89,767 tons in 1988. However, the quantity of vegetables produced in Saga prefecture did not increase so rapidly. Accordingly, the percentage to the total vegetables decreased from 67% in 1971 to 48% in 1987. As for fruit, the quantity shipped both in and out of Saga prefecture, reached the top in 1978. The percentage of fruit produced in Saga prefecture to the total also decreased yearly from 58% in 1973 to 46% in 1987.

II. The new plan of agricultural policy for the open market system of agricultural products

The Japanese government has made a new plan of agricultural policy to meet challenges of open market system faced by agricultural products. This policy change aims at industrialization of agriculture more and more to relieve agricultural difficulties.

It will raise enthusiastic farmers, and concentrate on arable land and economic support to them. It says, by doing these practices, that the costs of agricultural products can be lowered to the level of imported products' prices, farmers' agricultural income can be equalized to non-agricultural workers' income, and domestic agriculture can be preserved.

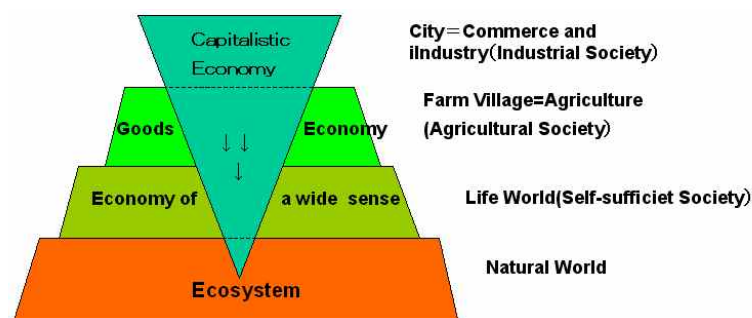
Will it be truly possible? We do not think so. Agricultural industrialization will require a large sum of capital. As the majority of farmers have a little capital, they will have no choice but to give up agriculture. If the farmers want to enlarge their farming, they must finance much money. They will be pressed for paying the mounting debts and its interest in the future. The more their farms

produce, the more severe their competition for selling their products at the markets. They must compete not only against domestic production areas but also with imported agricultural products. In these enthusiastic double competitions for survival, Japanese farmers will be decreasing more and more.

III. Reorganization of Economic System and Rural Agriculture

The logic of capital is working behind the problems on Japanese agriculture and farming villages, accompanying agricultural industrialization, rural urbanization and decrease in population. Reexamination of the whole economic systems that includes this capitalistic economy system is indispensable to build the symbiotic relationship with the cities by reproduction of agriculture and the farm villages. We must be premised on at least the following four principles in this case.

The first principle is the ecosystem that works in the natural world, especially animals and plants of which human being is a member. The second principle is the economic system in the broad sense of the term, peculiar to human society in connection with human general life world. The third is the principle of an equivalent exchange peculiar to economic society on the condition of private ownership in connection with general goods economy. And the last, the forth is the principle of surplus value production in connection with the capitalistic economy whose characteristic is goods production by capital.



<Fig. 1> Capitalization of Economic Society

Although these four principles correspond to each domain called the natural world, the life world, agriculture=farm village, and commerce-and-industry = city. These domains are not to be considered as a simple parallel relationship.

They are different each other in a logical dimension. They form the four structure such as a pyramid. In short, the base layer is the nature world contained the living things, the second layer is the life world as economy in the extensive sense, the third layer is agriculture and the farm villages that the market mechanism commits and the top layer is the commerce and industry and the city as a capitalistic economy. They are in the relation where first layer determines the second layer, and so on.

In fact, various problems surrounding agriculture and the farm villages which we have described so far are originated in the logic of capital infringing on the domain of the lower principles that are its existence bases in the ways such as industrialization of agricultural production process (from organic products to mechanical and chemical products), accelerating capitalistic management of farmer's economy (from the economy to which the life prior to the economy which gives priority to profit) and urbanization or depopulation of farm village.

In order to reproduce agriculture and the farm villages, it is required to limit the action of domain of the logic of capital and to remove the evil, while clarifying logic on which agriculture and the farm villages are based.

Keynote is to reconstruct life worlds (=life community) as the economy in the broad sense of the term, and to enlarge non-commodity economy in symbiosis with rich nature. Life worlds have the areas that are composed with nature and society. These areas are characterized by cities and farm villages that are complementing each other. Our task is to construct a good relationship between agriculture and life world of farm village and between industry and life world of city, and form each life world. To be more precise, it will be to construct life community, as the economy in the broad sense of the term, in the living environment and reconstruct agriculture, commerce and industry from a viewpoint of inhabitants. Since the areas are composed by two contrastive areas, i.e. cities and farm villages, the habitants in the cities and farm villages must challenge to restructure the economic society system from each side independently. The

assignment of city side will be to sublate the industrial society and the logic of capital that determines the society. That of farm village side will be to grope for primary agricultural development against the industrialization of agriculture and the constitution of capitalism. Various approaches such as NPO and Worker's Cooperative have already been started in city side. Various approaches that make new stream have been started in farm village side too as follows.

In order to form rich life world based on the economic principle in the extensive sense, the task that is imposed on farm villages and agriculture is to reconstruct agricultural life world contained rich environment. Concrete measures corresponded to three economic systems mentioned above are arranged logically as follows;

Firstly, it is to regenerate agriculture that is closely concerned with the lives of farmers and village people in the living area-based region. This type of agriculture which is described as living-oriented is the self-sufficient type of agriculture. It intends to make rich agricultural environment with a focus on food of people. As a rule, this agriculture is not assumed to become the medium of the commodity exchange. We can find the prototype of this agriculture in the mountain villages.

Secondly, it is to promote the alternated type of agriculture which is based on the exchange between regions. This agriculture is a part of the construction of more wide-ranging regional living area. This agriculture is fundamentally a part of the multipronged exchange between the communities (and their members).

The farm village residents who are mainly farmers communicate with inhabitants of the vicinal cities variously in the farm village area, mainly through their products, based on the living-oriented agriculture. It is the regional self support type of agriculture which covers more extensive areas than the living oriented agriculture. These two types of agriculture, that is the living-oriented agriculture and the alternated type of agriculture, form the frame of alternative agriculture.

The last is the reconstruction of market corresponding type of agriculture on the basis of the development of alternative agriculture. It restructures the large scale of mass production and mass distribution system. As a result, a new relationship with a focus on food and agriculture is built between large cities and

distant farm villages and between farm villages.

We explain the logical significance of each type of agriculture based on an analysis of the situation as follows.

IV. New Trends of the Development of Japanese Agriculture With Special Reference to Reassessment of Versatile Value of Agriculture

1. Self-sufficient Agriculture

At the same time, new agricultural movements have also emerged in the rural areas to face similar problems that arise from open market. For example, small farmers were learning to produce their own products by changing their attitudes on cultivation of their own traditional self-sufficient gardens.

Traditionally, most of the Japanese farmers had their own gardens which supplied fresh vegetables and other necessary products to meet the family demand. Furthermore, they planted fruit trees around their houses to meet their own consumption. They processed the surplus goods as preserved food like pickles and dry salteries.

But today, these kitchen gardens and traditional food processing systems are gradually disappearing as a result of part-time farming in most villages, directing homemakers to shift from agriculture to non-agricultural works. Today, it is very common that many farmers bought vegetables, fruits and processed food at the supermarkets, and their refrigerators are full of them. Homemakers could get some money income from non-agricultural works but, the most of that is used to meet their food needs. Although homemakers could release themselves from harvesting, washing and cutting of vegetables, the aged people were deprived of the pleasure with these activities. Children cannot find their mothers in their houses in day-times when they return from school. That is to say, homemakers get some money against the pleasure of happy home.

Under these trends, rural homemakers have started to cultivate vegetable in

their kitchen gardens organizing as a self-sufficient movement. In 1970, this movement was begun by homemakers of an agricultural cooperative in Akita prefecture which is located in northeast of Japan. It was rapidly diffused all over the country, under the assistance and help provided by staffs of the Agricultural Extension Center and the Agricultural Cooperative. Nowadays, 46 percent of all agricultural cooperatives are comprised of this movement and its membership. Homemakers of agricultural cooperatives of cities, towns and villages in Saga prefecture have also started to join with this kitchen garden's movement. They organize contests of kitchen gardens and award prizes to good gardeners at the general meeting of the cooperation regularly, which are aimed at promoting this movement as much as possible. This event is aimed to make an opportunity to learn various technologies relating to many kinds of vegetables which are grown organically by their fellow members. Thus, people in rural Japan have attempted afresh their agricultural life to meet present challenges. The aged people who have been forgotten by their families as a result of industrialization and urbanization get attention again from their families because of their traditional agricultural skills.

This movement was begun at villages and towns in the remote mountain areas of Japan.

Different and harsh nature of the mountain villages have refused the industrial agriculture and urbanization of the country, and left the self-sustaining agriculture which depends on the traditional live-skills. However, the waves of industrialization and urbanization have affected these areas too, compelling the people to abandon their traditional life style and leave for non-agricultural jobs. The self-sustaining agricultural movement is one of the forces which the people in mountains practice to maintain their traditional life-style with nature.

Moreover, it was the women and aged people who were outsiders of agricultural industrialization developed this movement. The women in the rural mountain areas are true soldiers of agricultural life. They assist their husbands who engaged in the industrialization of agriculture, and experience how many kinds of chemical fertilizers and pesticides are being used to improve the productivity and quantity. These women fear of the health of their families although they cook what they

have produced. Thus, their position as producers and consumers has made them refuse the part-time work and begin this movement.

2. Exchange Type of Agriculture

1) Exchange at the Distribution Process

(1) Direct Sale of Vegetables Grown at Self-sufficient Gardens

Diffusion of the movement of self-sufficient agriculture has resulted in achieving a high level of consumption of vegetables and fruits by its membership or increase of surplus production in each family. This has caused ultimately to set up direct sales-spots for these surplus products at every producing area. These products have been winning popularity among urban consumers because they are not only more fresh, and delicious, but also cheaper than those in the open market. A newspaper in March 1992 (Saga Newspaper) reported that there are about 40 such direct sales-spots operating in Saga prefecture. But today, there are over 100 of similar marketing channels functioning in this prefecture. These direct sales-spot of agricultural products were set up after the middle of the 1980's and increased rapidly in the 1990's.

Although some of these sales-spot have been declined, much of them have advanced and varied from self-service spots to manned spots, weekend sales to daily sales, and the provisional spots to the permanent spots.

The system of these institutions varies from each other according to the type of those sales-spots: personal, groups, third sector and agricultural co-operatives have different types of management systems according to their organization structure. This shows that their management systems vary from personally managed spots to groups and organized spots.

It can be noted that there are more such kinds of these direct sales-spots at the villages and towns situated in the hills or at the foot of the mountains rather than in the city centers in the Saga plains. It is important to develop these direct sales-spots and diffuse them from the rural areas to the city centers. In recent years, the agricultural direct sales spots have received attention among the administrative officers of the state who think these centers as a prime way to

revitalize the rural communities. Ministry of Land, Infrastructure and Transport which propelled the constructing of resting places in the Road Stations all over the country, has recently selected existing agricultural direct sales-spots such as the station or constructed new ones which contained direct sales-spots. For example, in Saga prefecture, there are six Road Stations of which four of them are the former sales-spots and the rest of two spots are newly constructed ones with a similar sales-spot.

The self-service spot which is the most primitive direct sales-spot, is marketing vegetables keeping openly in the stand-boxes. The consumers take them by themselves and put the correct amount of money into the provided can. In this market, vegetables and moneybox can be stolen easily because there is no one to look after them. These sales-spots are similar to those of vending machines by which many kinds of soft drinks produced by the factory are sold. However, the customer must insert correct amount of money into the machine, otherwise machine will not provide required goods to the customer. This machine protects goods as well as inserted money by the previous customers.

The question is why women are selling their products in a defenseless manner. The reason behind this is the habit of mutual exchange of goods in their traditional community life. What they truly want to exchange is not the thing but the heart. The vegetables at the self-service spot are for unfamiliar consumers in urban sector while the money paid by consumers could be recognized as the return to the women. The commodity exchange is the way by which the people in other communities share their products with goodwill.

Therefore, there are two meanings in the development of this institution from self-service spots to people-managed centers. This reveals two major aspects: firstly, producers wish to maximize their selling to increase money income; and secondly, producers want to exchange goodwill with consumers.

It is a well-known fact that consumers' strong concern with organic agricultural products have encouraged the diffusion of direct sales-spots everywhere in Japan. This occurred as a result of urban poverty of consumption of food which influenced urban consumers to change their attitudes on food habits. There are many vegetables and fruits that have very little taste and no smell and are watery,

because they were grown by industrial agriculture which uses chemical fertilizers and pesticides heavily. Recently, the consumers have begun to be concerned on the effects of these inputs, particularly pesticides on health of their families. Consequently, consumers' demand on agricultural product has begun to shift from price to safety and quality of the products. This is the reason for the increase of demand for organic agricultural products available in direct sales-spot and antenna shops.

Another popular way of selling organic agricultural products to consumers is direct sales centers which are established everywhere in the country to make direct relationship between the producers and the consumers. This system has helped the people who could not visit these sales spots due to transport difficulties. Most of the consumers receive their products from the centers directly, using various transport facilities. Many special agricultural products are being sent directly from the producing centers to the consumers by parcel post or parcel delivery service. However, sending of organic agricultural products, directly from producer to consumers is not much popular even today. We can find such a rare system at the agricultural co-operative in Narukami-No-Syo and Fuji town, Saga Prefecture.

(2) Antenna Shops:

This system is also recognized as another means of distributing organic agricultural products among consumers in the city. The rural producers' organization, which produced organic agricultural products started to set up direct sales spots called antenna-shops. Although these kinds of shops have not been well established so far, farmers have been selling their organic products renting some spaces at super markets. However, they cannot always expect a good performance level from this approach. The price of the products sold in these spots have been higher than that of the village due to the fact that they comprised of production cost as well as transport cost. This has been discouraging consumers from increasing their demand on these products.

In general, the urban consumers think that the organic agricultural products are more expensive than the ordinary agricultural products. The price of a particular

product in Antenna shops is higher than that sold at direct selling spots because of the transport cost. However, visit to these centers, particularly direct sales spots will not make an additional cost for consumers because most of the consumers visit them at leisure with their families. During these visits, urban consumers not only buy organic products but also enjoy themselves the rural scenery. Therefore, visiting these direct selling spots is becoming one of the leisure time activities for urban consumers.

2) Exchange at the Production Process

The agricultural sector in rural areas in Japan not only serves as a supplier of agricultural products to consumer needs, but also consists of many other versatile functions of the human life. In particular, agriculture preserves water and soil resources, environment, animals, the amenity and rural population. These factors are deeply related to constructing a friendly environment for a comfortable human life. The cities with lack of agriculture have been given these agricultural versatile functions from the surrounding villages. At present, the disappearance of farmers and agricultural activities along with the rapid industrialization of agriculture and urbanization of agricultural districts has denied the joys of rich life for urban people. Therefore, it is necessary to construct a good environment for rich life in cities, towns and villages through establishing a symbiotic relationship between cities and rural areas. Probably, it will be attained ultimately to launch a new ruralization of the cities. There are many kinds of such practices functioning in many parts of Japan at present. Some of these versatile functions of agriculture can not be enjoyed unless we directly deal with agriculture. Hence, it is necessary to make various channels by which the people in the cities can have access to the agriculture.

(1) Fruit farms for tourists

People in the urban sector can visit the fruit farms, which provide them with not only organic agricultural products but also pleasure of harvesting them with their families in a friendly environment. This concept is not a new phenomenon. For example, the Mitsuse Chestnut Orchard for tourists was set up in 1970. During

that time, there were a few fruit farms for tourists in Japan. Today, the fruit farms for tourists have increased in not only number but also kind of products, such as apples, grapes, pears, persimmons, sweet potatoes, etc.

In this section, an attempt has been made to analyze the validity of the fruit farms for tourists in economic terms. All production costs of these farms were looked upon not as the costs of products but as that of services which the fruit farms for tourists supply to tourists who visit from urban sector. The products that were produced in these farms have not contained any harvesting cost because the harvesting has been done by tourists themselves. As a result, the prices of products are inevitably cheaper than those of the ordinary products. In other words, consumers have participated in agriculture for pleasure while working and getting cheaper products simultaneously.

At present, there are some new types of the fruit farms for tourists which are managed by the owner system. In this system, the owner of the fruit farms rents the fruit trees or crops to tourists for a year. The new owners or the tourists pay the fee at the beginning of the spring and harvest crops in autumn. Under this system, farmers can get the money at the beginning of the year. If the new owner could not get sufficient products in autumn, then, another product will be supplied by the farmer to make up for the loss. As the management of the fruit farms for tourists is much stable, the farmers can devote themselves to caring of their farms without economic anxiety. Moreover, the relationship between farmers and consumers is much more intimate than that of the ordinary fruit farms for tourists.

(2) Citizen Garden

In general, most of the Japanese premises, regardless of whether the owners are farmers or non-farmers, have kitchen gardens. But, this has declined dramatically as a result of excessive concentration of population in city centers and suburbs. Most people live in small houses without any garden space. As a result, some local governments and the agricultural co-operatives have introduced “citizen gardens” which are leased to the citizens who are fond of cultivating some agricultural products during free time. This kind of citizen garden can be defined as a plot of farm which is cultivated by people who have a deep interest in agri-

culture. Thus, citizens can enjoy agricultural versatile functions as much as possible.

When cities are expanding hastily, the natural soil required for the survival of life is stamped down by concrete and asphalt. Today, people in urban sector aspire to regain natural space in rural sector to satisfy their own lives.

In recent years, people, particularly urban people hope to be rich in mind than in commodity. The Citizen garden enables the people to realize their relationship with the nature. It is also a hearty meeting place where the citizens can have mutual relationships with each other. It has spiritual attractions that can not be achieved from money farms. (Japanese Agricultural Cooperation, 1994. 3)

According to Ministry of Agriculture, Forestry and Fisheries, the Japanese citizen gardens surged from 1,707 spots amounted to 333 ha. in 1981 to 4,492 spots, amounted to 641 ha. in 1990, revealing an increase of 2.6 times in number and 1.9 times in area. Moreover, the 28 percent of municipalities in Japan have established citizen gardens by 1993. In Saga prefecture, the fourteen citizen gardens are functioning in twelve municipalities (25 percent). They are managed by local governments and agricultural co-operatives.

3) Exchange at the Life Process

Traditionally, many of the citizens have had a deep relationship with rural agriculture because they were born and grown in rural areas. Their children have spent some time there during summer or winter vacations. But today, the people who newly migrate to cities from villages are decreasing in number because human resources in villages have been exhausted. Many of the children were born in the cities and do not know anything about their grandparents' hometowns. In this way, the people who do not have a hometown are getting larger and larger in number. For instance, the city people go to the village to get restful spots and the sympathy of the country people during holidays, particularly on weekends. The people in the countryside also make different facilities and hold events to satisfy these urban communities. The emergence of direct sales spots and the fruit farms for tourists are a kind of outcome of these activities.

(1) Festivals and Sympathy with Each Other:

The people in the countryside have once again begun to reconsider their

traditional values and events which harmonize them with the nature and the culture. At the same time, many city people have also begun to participate in these events. For example, in Saga prefecture, there are more than 100 events celebrating every year. Many of them are held in every month in almost all municipalities in the prefecture. Nearly 30 percent of these events have begun after 1970s; for example, the Hydrangea Festival (Ouchi Town), Gata-lympic (Kashima city), the Saga International Balloon Festival (Saga City), etc. have been newly started in these areas. Furthermore, flower gardens have also increased during recent past. At present, there are more than 60 spots which comprise cherry blossoms, Japanese plum blossoms, the azalea, the rhododendron, the Japanese wisteria etc.

(2) Home-stay at a Farmhouse (Green Tourism):

Meanwhile, many city people are willing to visit the countryside for sight-seeing and stay there for some days. Although, there are some Japanese-style hotels available in the rural sector, urban visitors prefer to stay at places that offer friendly environment such as home-stay at a farmhouse. In Saga Prefecture, it is very difficult to find such places in the countryside, but similar establishments which provide accommodation can be found very easily, for example, Acorn Village (Mitsuse Village) where it has a hotel, rental garden with accommodation (Tosu City, Ariake Town, and Nanayama Village) and the campsites (over 50 spots). As a result, the establishments for staying in the countryside have increased rapidly.

(3) Study Tour to Mountain Villages:

This is another system aiming at facilitating urban children to study in a village school staying at a farmhouse. The children who study in countryside emphasize their willingness to live in a natural environment and agricultural community. In Saga Prefecture, such kind of program is available in Fuji Town.

(4) Constructing a Home Village:

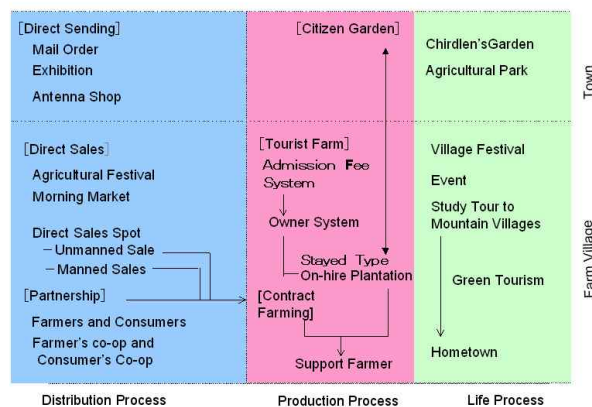
The local governments have begun to construct home villages for city people with all facilities for interchange between farmers and city people. They contain

direct sales spot of unique products, garden plots for visitors and school children, restaurant facilities with local foods, lodging houses and open space. In Saga prefecture, such kind of establishments are available in the Imari-Furusato-Mura (Imari City), and Yorankan (Kubota Town).

These activities have resulted in gradual increase of city people in the mountain and agricultural villages. They are practicing many kinds of life styles such as the organic farming, china craftsman, restaurateur, etc.

V. Conclusion

The agricultural self-sufficient movements have been carried out by the women and aged people in order to protect the declining agricultural activities. The women in village play the role of producers as well as consumers. These women have worked at farms with their husbands. However, women in part-time farm households have become the main agricultural working power. On the other hand, they cultivate vegetables at the self-sufficient gardens, while engaging in processing some of them for preservation, and cooking them for their family members. They are highly concerned about their family members' health by providing healthy food. Therefore, it is reasonable to emphasize that women in the village



<Fig. 2> Exchange of City and Farm Village

are the forerunners in the survival of rural agriculture and in preventing health hazard.

There are some consumer movements available in the urban sector which aimed at providing healthy goods for consumption which are also managed by women. They set up various consumers' co-operatives and join hands with producers to supply safe foods for their families. Recently, women both in the villages and cities are getting to tie-up gradually. A good example is the Co-op Saga, which is the largest consumers' co-operative in Saga prefecture.

The aged people are not only the supporters of the agricultural self-sufficient movements, but also the true leaders to encourage such movements. Formerly, they are practicing self-sufficient agriculture, while dealing with organic agriculture. They cultivated products by digging soil deeply and supplementing it with organic manure and devised many organic means to prevent harmful insects. It is important to learn these technologies from them and re-construct organic agriculture based on the modern science without denying new agricultural technology. We must use them not only for the economic efficiency of agriculture, but also for many types of organic agriculture. The system of self-sufficient organic agriculture is not a closed circle, but an inter-dependent system. This system can be divided into various groups ranging from small groups of families to communities with large groups.

<국문초록>

농업발전을 위한 대안적 제안

Yasuroku Osa

Professor, Faculty of Economics, Saga University

일본은 아시아몬순 지역에 속해있다. 일본은 연중다습 온화하여 기후 면에서 볼 때, 세계 어느 국가보다 농업에 알맞은 조건을 지니고 있다. 하지만 일본의 농업은 경제적인 이유로 점차 쇠퇴되고 있다. 이것이 아시아 최고 경제 발전국가 농업의 미래라면 여타 국가들도 같은 경로를 따를 것이다. 그렇다면 미래에는 어느 국가가 농산물을 우리에게 공급할 것인가. 어떤 국가도 농산물 공급국가가 된다고 장담할 수 없다. 농업을 유지하기 위해서는 경제적 효율성 측면에서라도 생태계와 동식물 원리가 잘 진행되어야 한다.

주제어: 농업, 생태계, 경제적 효율성