

The role and possibility of subsistence production: reflecting the experience in Japan

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Abstract

This paper examines the meaning and expected role of subsistence production in contemporary Japan via an overview of national trends and a case study taken from the Ashigara region, Kanagawa prefecture.

With the expansion of the market economy, subsistence production became marginalized. In rural Japan, too, subsistence production declined drastically with the rapid economic growth following World War II. Women operated under a double burden of economic and subsistence activities, but with the increased importance of economic activities the social status of subsistence activities decreased. The scope and variety of subsistence products likewise decreased and were replaced by store-bought goods.

Nowadays, subsistence production is mainly engaged in by elderly women for such reasons like assumed superior quality (deliciousness and safety), enjoyment for themselves and their families, as well as the desire to maintain tradition. Resources, information like recipes and products are shared with relatives and friends. Sharing meals and exchanging information within the community functions as important mediums for communication. However, due to its decreased economic importance, food processing was “gendered” as a “women’s hobby” rather than a household necessity, and women often process food alone late at night after finishing household chores.

Considering the expected role of subsistence production, as suppliers, the lonely activity confined to the women’s sphere may not be acceptable to the next generation. As consumers, distrust of purchased food is keen now and demand for credible alternative foodstuffs is high. Such demand is met by “*Chisan-chisho* (local food supply and consumption)”, and rural women’s entrepreneurial activities for food production are likewise growing. But it apparently connotes a paradox of “marketing” of “subsistence production”.

Coping with the burdensomeness of subsistence production, two approaches are observed. One tries to lessen the burden by mechanization or outsourcing, while the other evaluates each process itself, i.e. evaluating subsistence production as a chance to learn local wisdom, to interact directly with nature while considering the ecological balance. Those who support the latter standpoint are increasingly expressing opprobrium against the monetary world.

1. Introduction

Subsistence production has been the central activities for maintaining livelihood for many centuries. It directly produces the *value in use*¹ connected with daily necessities. To meet various needs from everyday life, subsistence production has kept diversity of products regardless the *value in exchange*. In subsistence production, crops well adapted to the locality are grown with low input of chemicals, and behind such production skills, a deep understanding of the dynamics of local ecosystem lies. But with the penetration of capitalism and the market economy, subsistence production has shrunk even in those countries whose main industry is agriculture.

The aim of this paper is to examine the meaning and expected role of subsistence production in Japan today. Firstly, discussions on subsistence production are reviewed briefly. Next, transformations and present situation of subsistence production in Japan, and then a case study in the Ashigara region will be examined. Lastly, the expected role and the possibility of continuing subsistence production in Japan will be discussed.

2. Arguments on subsistence production

Adam Smith famously claimed the advantage of division of labor and exchange in procuring the “wealth of nations”, while Marx placed modern bourgeois’ mode of productions as the most advanced form in the economic development of society. Subsistence production, as it were, has been supposed to go extinct.

Regarding the *value in exchange*, the main value in a market economy, Tonoue(1986) argued that this merely demarcated the utility moved between producers and consumers, which did not necessarily enrich human life. Against the capitalists' view of separate and distinct position of market economy, Polanyi claimed that the human economy is embedded in social relationships, and he put the importance on householding (production for one's own use) as basic principles in addition to redistribution and reciprocity (Polanyi,1944). It had long been believed that the self sufficiency oriented lifestyles of hunting and gathering societies were constantly faced with the twin dangers of hunger and famine, yet Sahlins revealed the affluence of their lifestyles through detailed examinations of consumption and leisure time (Sahlins, 1972).

From the Eco-feminist perspective, Mies et al.(1983) pointed out the

¹ Straight out of Marx

asymmetry of "previous accumulation" within capitalism. They noted the exploitation by capitalism of women, small farmers, and "colonies" for the purpose of "previous accumulation", and they placed "subsistence perspective" in opposition to capitalism.

Matsui(1998) paid attention the nature of pleasure induced by the interaction between nature and humankind. He focused on "minor subsistence" activities that is not indispensable for sustenance of daily life rather than major subsistence activities since "minor subsistence" has more aspects of amusement and pleasure.

With the viewpoint of sustainable resource management, the management systems of "commons" have come to attract attention these days. The commons have historically offered various materials for maintaining livelihood, and they give importance to participation in utilization and management of resources, while the possession of property has little meaning.

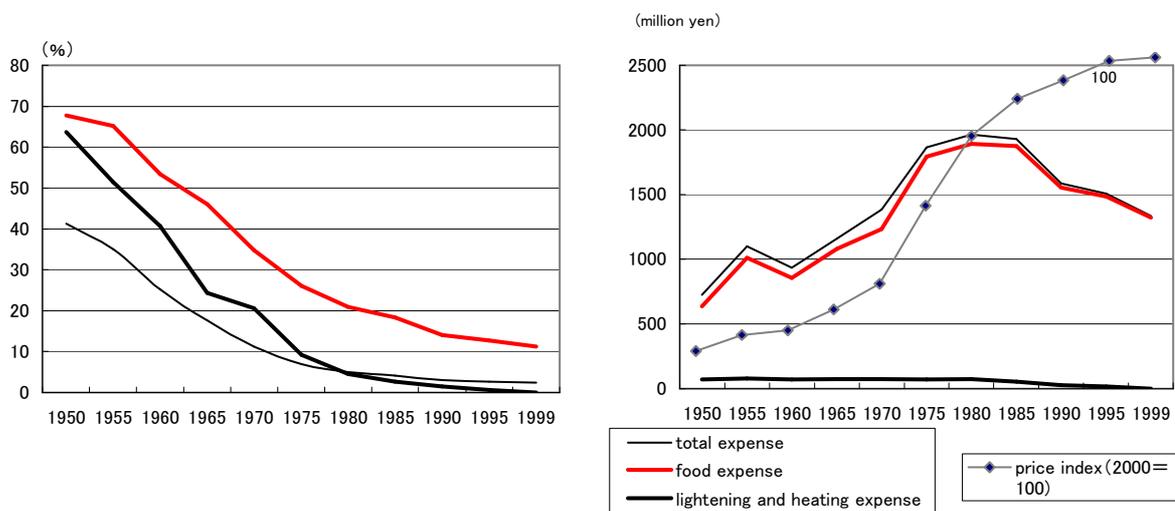
Thus subsistence production has been attracting attention from a wide variety of fields with critical viewpoints of capitalism, leading towards a re-evaluation of "real richness" of human life, and sustainable resource economics.

3. Transformation of subsistence production in Japan

In Japan, with the increase of income generation, the share of subsistence production in the food supply decreased continuously. At the national level, food self sufficiency decreased drastically and it fell below 40% in 2006 (comparatively, it was 79% in 1960). The rural population was expected to provide a labor force for urban areas, and agricultural products continued to be exposed to international competition. In 1961, the Agricultural Basic Law was enacted, and the policies of "selective expansion" and "formation of chief production base" were promoted. By such policy changes under the Agricultural Basic Law, there is concern that a decline in small farmers' skills resulted. Changes in food habits (e.g. westernization, increase in eating out, and the use of processed food) also accelerated the increase of imported foods.

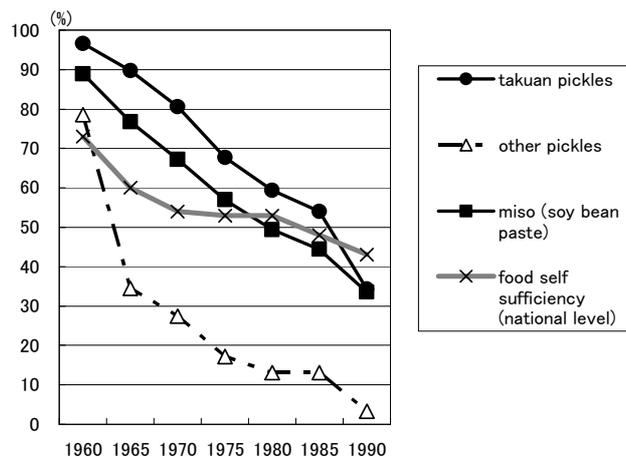
In farm households, food self-sufficiency ratio is decreasing too. Long before World War II, a market economy with global connections, had gradually penetrated. In particular, with the increase of silkworm production as the raw material for a burgeoning textile industry, the chance for getting money increased, but such income was used mainly for social expenses such as ceremonial occasions. In 1965, food self sufficiency ratio (ratio of supply in kind) became less than half in farm households, and the rate decreased continuously (Figure 1,2). In terms of the cash amount, supply in kind increased until 1985, and when taking rise of price into consideration, it can be said that the decrease of self-sufficiency ratio was mainly attributed to the increase of

total food expense until 1985. But afterwards (in particular after 1990) the real supply decreased. Regarding number of households engaged in subsistence production, majority of the farm households that cultivated vegetables used the products only for self-consumption, but the number of cultivating households also decreased following 1990 (Figure 3). During the period of rapid economic growth beginning in the 1960's, and the shift towards liberalization of trade in the 1990's, subsistence production seems to have undergone substantial change. Being marginalized as non-profit, trivial work in the household, elderly members or women continued marginal subsistence production for their family.



(compiled by author from Farm household Economy Survey and Consumer Price Index)

Figure 1. The change of food self sufficiency ratio (ratio of supply in kind) in farm households



(compiled by author from Farm household Economy Survey)

Figure 2. The change of food self sufficiency ratio of processed food in farm households

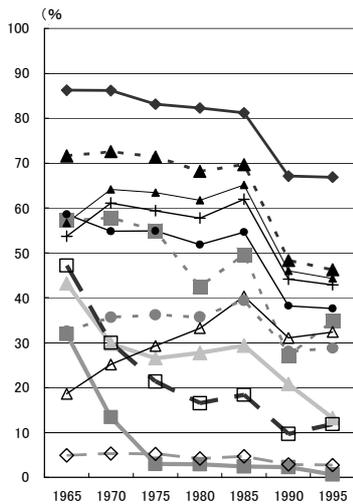


Fig 3-1 The ratio of cultivating farm households

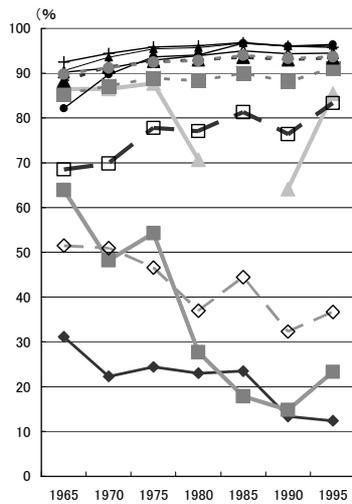


Fig 3-2 The ratio of farm households that cultivate only for self consumption

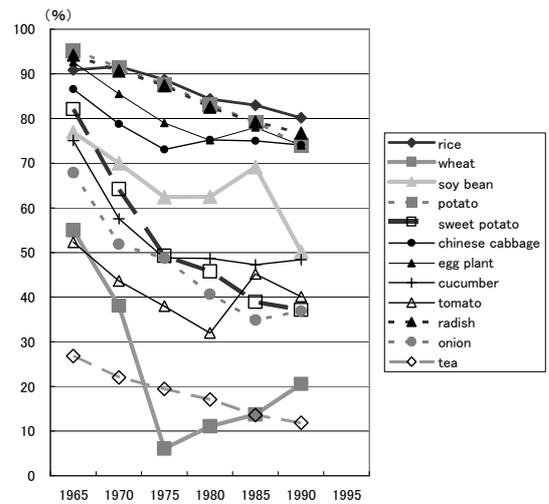
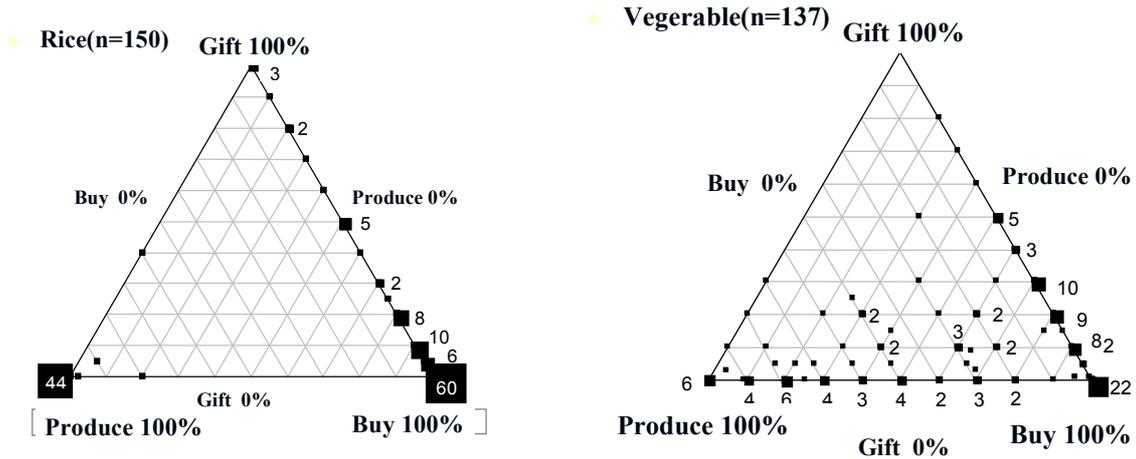


Fig 3-3 Self sufficiency ratio of each product

(compiled by author from Agricultural census and Farm household economy survey)

Figure 3 The change of cultivating farm households of each crops



(Source: Yoshino k.,Katayama C.,and Morofuji.K. to be published in 2008)

Figure 4. Acquisition routes of rice and vegetables, lida city, Nagano

Even though the market economy seems to have thoroughly penetrated, the share of non-monetary routes of food acquisition is remaining at a certain proportion (Figure 4), which indicates the nature of subsistence and mutuality in rural areas.

(2) From "Self-sufficiency movement" to "Local food supply and consumption (Chisan -Chisho) movement"

As mentioned above, even farm households came to purchase vegetables from supermarkets following the period of post-war rapid economic growth. Farm women

came to feel such phenomenon ridiculous, and the self sufficiency movement started around the 1970's (Hasumi et al. 1986). It was the very time when the adjustment of rice production, which had been fixed and subsidized by the government began, and farmers felt uncertainty regarding income, and a movement toward subsistence production was regarded as a frugal strategy to reduce household cash expenses. On the other hand, with rising health concerns regarding the use of industrial chemicals in farming, the perception of the need for alternative safe foods was also increasing among consumers. The "self sufficiency movement" developed for the sale of surplus products at small stalls and street markets primarily managed by household women producers. At this early stage their families criticized these women's activities because such sales yielded little amounts of money. Yet women continued participating in these markets, finding enjoyment and collective work with friends, as well as receiving an additional source for their own income.

Nowadays, farmers' markets have grown in both number and scale. It is said that there are more than 10,000 farmers' markets in Japan (MAFF,2004), and markets that sell more than 100 million yen/year are not exceptional. "Local food supply and consumption" (*Chisan-chisho*) is a movement that has garnered a great deal of attention recently, and expectations remain high that these activities will support rural communities and economies. Within this broad movement of *Chisan-chisho*, farmers' markets are the pioneer and chief activities.

(3)Involved in the market economy again

In order to find a place for the production of small amounts of products, or irregular ones, it has been noted that women and elderly farmers actively experimented in growing diverse crops, and additionally began to utilize wasted fields and rugged mountainous terrain. On the other hand, it has also been noted that products that used to be shared among neighbors came to be sold, with an up-scale in production, and a corresponding use of chemicals or specialized ingredients increased, and that subsistence production came to be blamed by families when the profit from farmers' market decreased. Here lies the contradiction between "subsistence production" and "sale". Since subsistence production places the importance on *value in use*, early customers trusted their products. But these days, with the expansion of markets, customers came to compare products with the criteria of "cheapness". Consequently, within subsistence production, products became divided within categories of those that may yield cash income and those that may not.

4. Present status of subsistence production and possibility for succession – A case study from Ashigara region, Kanagawa prefecture

Ashigara region, Kanagawa prefecture is situated in a suburban area of Tokyo about 80 km apart. Ashigara region covers seashores to the south and mountains to the north, and also covers Hakone, a famous place for sightseeing. There are about 130,000 households; with about 5% (almost identical with the national average) are farm households. Endowed with good quality of water, large factories were constructed here before World War II. In addition, taking advantage of the nearness to Tokyo, farmers cultivated cash crops such as fruits. Thus people here had the chance for cash income from various sources from the early part of the twentieth century. In this region, there are two farmers' markets managed by Cooperatives, and one by local government, and several private markets besides cooperative shipment.

(2) Present status of subsistence production

Based upon the results of a questionnaire administered to 213 female members² of Ashigara-Seisho farmers' Cooperative (“cooperative members” hereafter) and interviews with 15 members who were awarded recognition for their food processing skills by Cooperatives, and a further questionnaire administered to 100 non-farm households³ (customers of organic-products, “customers” hereafter), I will examine the current status of subsistence production in Ashigara (Yoshino, submitting).

Figure 5 shows the production ratio of each crop and processed food among co-op members and customers. Among co-op members, 85% of respondents grew some kinds of crop, and 91% processed agricultural products, but the production ratio of traditional preservatives like *takuan* pickles, and *miso* (soybean paste) were quite low. Among customers, 37% of respondents grew some vegetables or fruit trees, and 55% processed agricultural products. But only 45% of respondents sold crops, and 11% sold processed food. Having various opportunities to get off-farm income, full-time farm households are quite few, and farming for personal consumption remained as the main system of agricultural production here. On the other hand, as the examined site is located in a suburban area, the land has significant value as realstate, and it is often observed that even though farm land is not utilized, owners can not rent it out for cultivation due to high land prices.

² Representatives of 28 branches of the Cooperative who participated annual meeting of the Cooperative held in May, 2008 (98% out of 218 participants).

³ Customers of *Ashigara Noh-no kai* as mentioned later (84% out of 124 households who were asked to answer the questionnaire).

Let us examine in detail about subsistence production picking one woman as an example. Ms. Y was born in 1932, and lives with her husband, son, the son's wife and two granddaughters. Her son is a public employee, while Ms. Y and her husband are primarily engaged in agriculture (Table 1).

According to an interview, "I grow two varieties of rice on 700m² of paddy fields, and after harvesting the paddy, I grow potatoes and broad beans. In 2007, 800m² of paddy fields that had been rented out were returned, and I started to grow soybeans. On 150 m² of upland field, I grow about 70 kinds of vegetables, and several varieties of each crop are grown according to expected usage. I gather more than 20 kinds of seeds by myself, and some crops grow spontaneously after planted. Seeds and seedlings are shared among friends too. For the enjoyment of children, there are no less than 15 kinds of fruit trees. Harvest season is year around, and I am always busy. A crop can be harvested at different stages and used for various food recipes. For example, when ginger is young and thin, it is eaten raw, then pickled with red perilla sauce, and when fully grown, they are sliced, and boiled up with soy sauce as side dishes, or cooked as sweets."

"I make no less than 40 kinds of processed foods. One day, I sliced the skin of *yuzu* orange all day. I endeavor to make full use of the harvest because I do not want to waste the fruits of each plant's life. Although I grow various crops and makes processed foods, I sell some portion of rice and soybean through a cooperative shipment, and

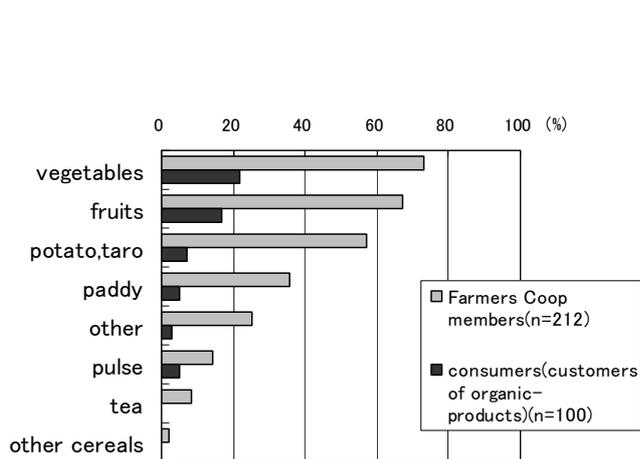


Fig5-1 production of crops

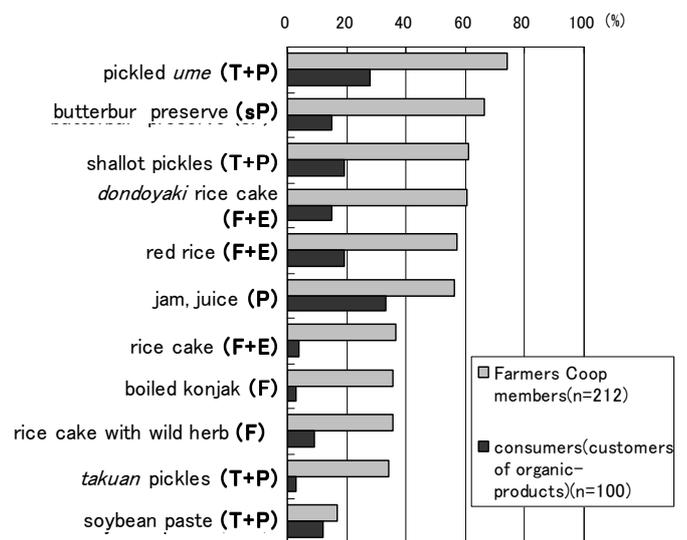


Fig5-2 production of processed food

(source: Yoshino, submitting)

Figure 5 Production ratios of crops and processed food

Table 1. Production and processing of Ms. Y

	Produced		Self propagation (species)	Sale of products	Processed food	
	Species	Varietirs			kinds	for Sale
Rice field (approximately 70a)	3	3	0	2	4	0
Upland field 1 (8a) (soybeans+potato)	2	3	2	1	7	1
Upland field 2 (7a)	4	8	2	0	0	0
Starchy vegetables	11	13	6 ^{z)} (1) ^{y)}	0	6	0
Other root/tuber vegetables	13	15	4 (4)	0	1	0
Fruit vegetables	7	9	1	0	2	0
Fruit vegetables (young beans)	28	29	9 ^{x)} (6)	0	3	0
Leafy vegetables	4	3	2 ^{u)}	0	4	0
Beans	1	3	1	0	0	0
Oil plants (sesami)	17	20	–	0	15	0
Fruit trees	90	106	27 (11)	3	42	1
Total						

z) 2 species are given from neighbors every year

y) Figures in blacket are those sometimes propagated

x) 4 species are from wild propagation once after cultivation

u) 1 species is from wild propagation once after cultivation

soybean paste at a farmers' market. Almost the entirety of the products are consumed by the immediate household family or shared with relatives and friends. Sometimes I share too many portions of processed goods to be able to save any for my own family's use. For every meal, various handmade products are served, but my son's wife never helps with the production. Instead, my granddaughter helps me. Now she (the granddaughter) can make many products quite well, and I feel that the son's wife (the mother of the granddaughter) appreciates the skill. But I am unsure who will be able to continue my domestic food processing once I become physically unable to do so."

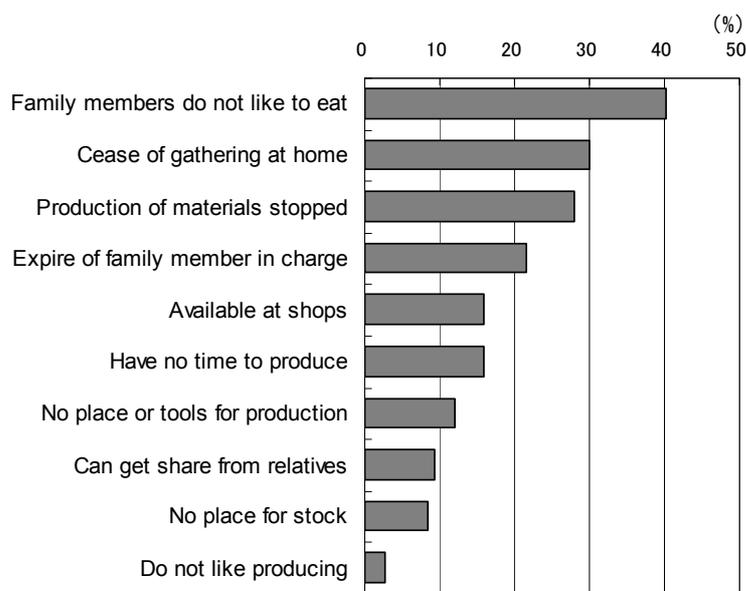
(3) Reasons why people are abandoning or continuing subsistence production

As represented by Ms. Y, the main supports for subsistence production are women around 60 to 70 years old, and they do not see much prospect for the next generation as successors. The question then becomes how will these skills be transmitted to future generations? What is the meaning of subsistence production today? Focusing on food processing, I will examine the past and future succession of subsistence production.

When there was no place to purchase basic food items, all preserved food was necessarily processed by the individual household or community. If a food requires manual labor, processing was done involving entire family members. On the other hand, to get necessary food with minimum labor, labor saving skills like "rolling pickles" (a bottle with pickles is left on the yard, and kicked by family members when passing by).

were invented. Moved at intervals, pickles do not get rotten, and the sauce soaks into the pickles. Following the period of rapid economic growth, much food processing (especially labor intensive ones) have been replaced by purchased alternative goods or abandoned altogether. Yet even before these developments, there existed keen needs by women for an alternative. "I was too busy"; "I was relieved when processed foods came to be available at shops", such women's voices show the extreme busyness of women doubly burdened with cash crop cultivation and subsistence production (actually triple burdened if reproductive activities are counted). With the degradation of subsistence production among family members, they could not help but to abandon them.

From the questionnaire survey to co-op members, the reasons why they abandoned food processing can be explained as below (Figure 6). The reasons are multi-varied: socio-economic changes that resulted in the availability of processed foods for purchase at shops; a general reduction in community activities situated in the individual home in which homemade foods were expected; and the gradual passing on of skilled elders within the household, taking with them irreplaceable knowledge and skills. Changes in young generations' consumption patterns also had a large influence. Moreover, the cease of cultivation of materials replaced by cash crops, renovation of housing in modern styles which resulted in an accompanying abolishment of necessary facilities for food processing like preserving rooms, big ovens and earthen floor, also affected the needs for production. Thus penetration of the market economy and modernization (=westernization) of life style were the main causes.



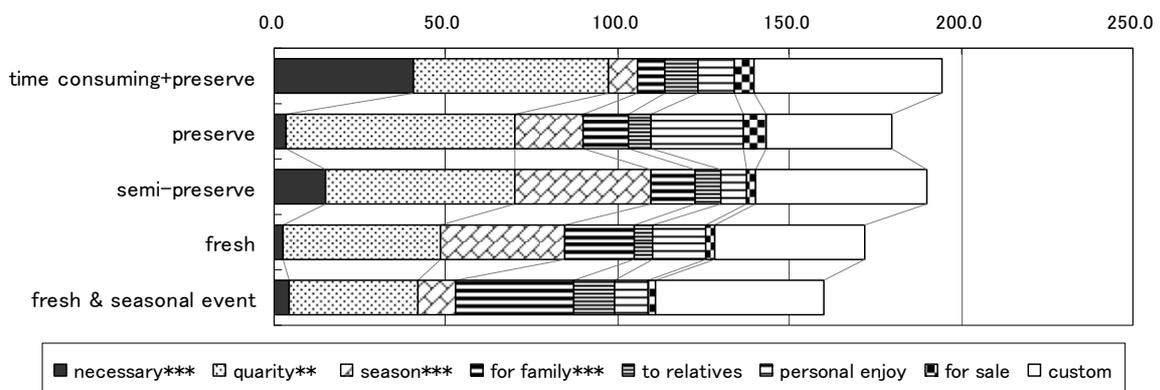
(source: Yoshino, submitting)

Figure 6 Reasons why they ceased processing foods (n=107)

Figure 7 shows the reason why they keep processing foods. Since there are many kinds of processed foods, they are categorized into 5 groups: 1) required time for becoming edible after process, 2) preservability, and 3) relation with events, are each taken into consideration. "Quality" (deliciousness, safety, and healthiness) was the most important factor among all food groups, and "custom" (used to make) followed. "For enjoying seasonality" and "for family's enjoyment" were more important for food groups related with events with low preservability. As "necessity", which used to be the main and nearly only reason, was provided as a reason only with time consuming, yet preservable foods, by large percentages. However, it was not the main reason, and for other food groups "necessity" was not so important a factor.

From interviews, it was discovered that many individuals did not actually receive knowledge of the production of processing foods from predecessors. Many of them answered that when they married into a new household, nothing or only a few items were processed. It was often observed that they started processing for their own enjoyment. Important sources of getting information on food processing were friends, and they got incentive to process foods by tasting friends' handmade ones at community or personal gatherings. Among elderly women, the custom of bringing homemade food and exchanging them at gatherings still remains strong. The age of main participation in food processing, typically those in their 60s and 70s, is also important since they generally have experiences of processing, or observing the processing, of all the basic processed foods from their childhood, and thus restarting food processing at a later date may have not have presented as many difficulties.

Food processing is marked as "enjoyment" now, and it is noticeable that most of women process alone (83 % of respondents). Through interviews, it was found that most of them processed at night after finishing all the "regular household" work, and



(source: Yoshino, submitting)

Figure 7 Reasons why they keep processing foods

after other family went to sleep. In daytime, they are busy with various work and chores, and thus they processed at midnight alone. As trivial work which did not yield cash in the old days, and as a hobby for women these days, food processing has been confined to elderly women, and thus young generations are not attracted to it.

With regards to future prospects, the results from the questionnaire survey to co-op members, the majority of them answered that the rate of handmade foods needed to be increased because of concerns regarding food safety, and three-fourths answered that they wanted to pass their skills along to the next generation, while 80 % of them wanted to maintain the skills directly to family members. By contrast, the majority of them were suspicious about whether young generations would succeed them. Many of them answered it was enough if only those who like processing succeed.

(4) New movements on subsistence production

Recently, not a small number of people are interested in producing their own food in various ways, such as kitchen gardening, weekend farmers, joint cultivation, as well as those fully engaged in agriculture (in many cases after retirement). Among younger generations, too, there are those who have become tired of urban restless life, and want to spend their lives in rural areas producing their own foods. There are also movements to learn skills of food processing among younger generations. Such movements typically attract urban, or non-farm households.

With regards to the burdensomeness of subsistence production (food processing in particular), two approaches are observed. One approach tries to lessen the workload by making use of up-to-date machines or outsourcing of the most burdensome processes. The other approach makes much of each process itself. *Ashigara Noh-no Kai* (*Noh-no kai* here in after), mainly organized by non-farmers is a group that practices the latter approach. Members are interested in producing their own food with organic farming and with local resources while considering the environmental soundness. Members positively enjoy processes of production and rural life, and are eager to learn the wisdom of nature and local knowledge. In *Noh-no kai*, various ways of participation in agriculture are sought and provided such as helping individuals become independent farmers, finding land for cultivation, collective production, etc. More than 100 families are participating in this project (with many engaged in collective cultivation of rice). This movement is an explicit critique of rampant consumerism and the exploitative tendencies in transnational capitalism.

“*Miso* (soybean paste)-*no Kai*” is one of their activities. Members grow soybean jointly, and make soybean paste after harvest. At this event, many participants gather regardless of age or sex. It is often observed that entire family members participate.

Miso processing starts from fermenting *koji*, the most burdensome aspect of the production process and one which is typically outsourced, and thus a large reason for the abandonment of local production of *Miso*. But in the collective environment of *Noh-no kai*, those who had finished their own work often help other participants, and the burdensome work turns to joint enjoyment. The number of participants increases every year, and in 2007, there were more than 120 participants. At *miso no kai*, each participant's *miso* of the previous year is exhibited and participants taste each other's product. Dishes using *miso* are also brought by participants, tasted, and recipes are exchanged. Such scenes reminds us of the rural elderly women's tasting and exchanging information at gatherings. But the difference is that at *Miso no kai*, male members, the young and children are also participating.

Although admittedly on a relative small scale as of now, movements to encourage subsistence production certainly exist and are steadily increasing, as people are beginning to search for different values from those derived from “pure” market rationality .

5. Meaning of subsistence production today and the possibility of continuance

Concerning the expected role of subsistence production on the supplier side, the function of hand-made food as a tool for communication may be weakened among younger generations since they are more accustomed to eat out, and processing food alone at night may not be acceptable for them.

In modern Japan, the simple fact is that many urbanites can live without a self-supply of food stuff, and even without cooking. Subsistence production is not necessary for modern Japanese for acquiring the basic materials of life. Subsistence production itself has become “minor subsistence” now.

On consumer side, with the increase of incredulity towards purchased food, demands for credible alternative locally produced foods are growing. Such needs have been met at “*chisan-chisho*” (local food supply and consumption). As mentioned above, with the rise of *chisan-chisho*, rural women's entrepreneurship with local food is attracting attention, but it in turn contains a contradiction of “marketing subsistence production”. It seems that there are two approaches regarding fair evaluation of subsistence production. One is by calculating the assumed economic contribution. At the time of the promotion of the "self sufficiency movement", a particular amount was targeted (like "200,000 yen movement") and participants tried to produce an equivalent economic value in foodstuff. In addition, actual income generation began via sale of surplus products from this movement.

Another approach is the evaluation of the meaning of subsistence production itself. In Japan, most people, in particular the younger generations, do not have chance to experience farming or do not know how and from where food is produced. Such ignorance and divergence from the reality of agricultural production make many consider agricultural products like industrial products, as if the production could be controlled merely at will. Attitudes of consumers seeking cheaper food resulted in increased imported food more and more, which furthermore caused the exploitation of resources overseas, and endangered the environment. New indicators such as ecological footprints, food mileage, and virtual water clearly demonstrate the existence and long term consequences of these problems.

In such a time, the meaning of subsistence production is increasing. It supplies *value in use*, and production itself has direct meaning to the producers and the family, and moreover, it can provide a chance to intercourse with nature directly without utilizing a calculus of profitability. Through subsistence production we can learn both the limitations and abundance of nature, as well as learn the extents of the limitations of our wants, which capitalism has enlarged to such a rapacious extent as to render them so vast as to threaten our continued life as a species. Knowing severeness of the nature, appreciation of lives of crops and harvests arises, and knowing limitations, our ancestors cherished the products and developed skills to make full use of them.

Since subsistence production does not seek individual profit, the resources, products and information can be shared, which strengthen the social networks and social security. Such value of reciprocity that subsistence production has should be re-evaluated, too. By inclusive participation of citizens, regardless of being “professional” farmers or not⁴, male or female, young or aged, we have the potential to rediscover the meaning of work and living together as a family or in a community.

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⁴ Regarding real participation in subsistence production, the principle of the commons needs to be applied, and wasted land needs to be open to those who would like to cultivate and ready to undertake management.

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