

## URBANIZATION AND HEALTH EDUCATION IN MODERN JAPAN

*/In the case of vegetable production among suburban dwellers in Ulaanbaatar/*

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**Хураангуй:** Энэхүү өгүүлэлд дэлхийн II дайны дараа Японы засгийн газрын дэвшүүлсэн цөм гэр бүлийн (nuclear family) тогтолцоо бүхий хотжих бодлогын хэрэгжилт болон орчин үежилт нь япончуудын гэр бүлийн харилцаа, эрүүл мэндэд хэрхэн нөлөөлсөн талаарх судалгааны үр дүнг авч үзсэн. Тус судалгааны үр дүнд тулгуурлан манай улсын хотжилт болон эдийн засгийн хөгжил нь хот суурин газарт суурьшин амьдарч буй иргэдийн эрүүл мэндэд хэрхэн нөлөөлж байгаа болон түүнийг даван туулах арга зам тухайлбал, ард иргэдийн эрүүл мэндийн боловсролыг дээшлүүлэх, улмаар эрүүл амьдралын нэг үндэс болсон хүнсний ногооны хэрэглээг сурталчлах, өрхийн үйлдвэрлэл эрхлэхтэй холбогдсон бизнесийн мэдлэг олгох зорилгоор хийгдсэн ажлын судалгааны үр дүнгээс танилцуулах болно.

**Түлхүүр үгс:** хот суурин газар, эрүүл мэндийн боловсрол, цөм гэр бүл, өрхийн үйлдвэрлэл

**Abstracts:** Since the end of World War II, the Japanese society experienced a rapid modernization. However the modernization deeply affected the family structure and kinship ties, and thus gave positive as well as negative impact on its health environment. In this paper, we will show how family change caused by modernization brought unwillingly negative influence on health conditions. In Western countries, the family garden has been considered as a means of improving marginalized people's nutritional status and their quality of life at the same time, by encouraging mutual assistance within the neighborhood. Under this perspective, a team from our research tried to promote vegetable gardens among residents of a Ger district in Ulaanbaatar from 2016 to 2019. In this communication, we discuss the manner in which the residents adopted vegetable gardens, and we specify the reasons for this adoption.

**Key words:** urban communities, urban residence, health environment, nuclear family, nutritional condition

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### **Families and Social Structure before the Modernization**

In 1868 with the restoration of Meiji, Japanese political modernization as well as industrial revolution began. However, the Japanese society stayed essentially rural until the World War II. In rural areas, most common family type was stem family called '*ie*'. (Hanley, 2010:77-98)

An *ie* was composed of three generations of one couple of grand parents, one couple of parents, and their unmarried children. Ideally, the eldest son stayed in the parents' home even after the marriage, while other children married out or stayed single with their parents. Members of an *ie* worked together, and took meals together, under father's authority.

The eldest male of the *ie* has a duty for cult of ancestors in order to secure lives of all of the descendants. Younger brother found their own *ie*, called '*bunke*' (branch line) when they get married. However, younger brother's *ie* (*bunke*) is under the command of elder brother's *ie* (*honke*), just as master and servant. The hierarchical relation between *honke* and *bunke* stays active for generations. Therefore, a group of *honke* and its *bunke*s makes a hierarchical group called *dozoku*, but mutual assistance is also obligatory among members of *dozoku*.

A village in pre-modern Japan was not composed of households, but *dozoku*. Especially, in eastern Japan, only the chief of the *dozoku* could be a member of village council, while in Western Japan a village council was composed of all the chiefs of *ie*, whether *honke* or *bunke*. A village was in a solid cohesion in order to realize mutual assistance and collective control of natural resources, especially water resources necessary for rice production.

Those who did something against village internal rule would be evicted from social networks of mutual assistance in the village.

In this cohesive system of family and village, people kept mutual assistance and reproduced health knowledge through social interaction among them. However, once one behaves against the village cohesion, one would lose any supports from kinsmen and neighbors.

### **Modernization and Family Change**

The history of modern collective housing began, in Japan during the 1910's. Especially, after the serious disaster of a great earthquake on September 1<sup>st</sup>, 1923 that devastated the center of Tokyo, the government constructed many collective houses in order to realize village neighborhood in urban situation. However, the efforts stopped because of the war against the United States.

In 1945, with the defeat of Japanese army, millions of young soldiers in frontiers came back home, founded their family, and began to work to reconstruct the destroyed Japanese economy. Most of them were critical against Japanese military regime that led then to the infernal war, and thought that one of the causes for the military regime was the pre-modern nature of hierarchical family and village structure; just as in the family, young

people was forced to obey elderly commandants in the military system without questioning their justifiability. Therefore, for these young generation, it appeared to be important to escape from the hierarchical system of *ie* and village. Some of them dreamed to go to cities where they could live without any bonded obligations of authoritative rural families. (Demographia, 2018: 19-25)

Then the urbanization began in suburbs of big cities such as Tokyo and Osaka, as the Japanese economy recovered little by little. Japanese government tried to attract abundant rural people to come to work in industries in urban areas, and, for this purpose, founded collective housing. The governmental attempt to construct collective housing in the 1950's differs from that before the war in that the former lacks any attempts to create urban neighborhood, instead of producing standardized and therefore industrialized homes for young nuclear families, most of them coming from rural areas. These young people thought that nuclear family was adapted to modern and democratic society. They dreamed a family life represented in American family dramas diffused in TV programs. These people were then the main protagonists of mass-consumption society. In fact, construction of collective housing for nuclear family contributed to the rapid economic growth: each of these young couples bought televisions, washing machines, cars, and other home devices. In order to secure young couples who come the urban areas to become wagedworkers, the government developed plans for the New Towns everywhere in the archipelago. However, in this period, most of residents in collective housing wanted to have one day their own independent house with a small garden. Therefore, for them, the collective housing was a temporary dwelling.

The development of nuclear family paralleled with radical change of dietary customs. Traditionally, Japanese people mainly eat rice, vegetables and fish. After the World War II, Western cooking was largely introduced and diffused through radio and TV programs. Under the American occupation just after the defeat in 1945, the United States brought abundant American wheat to supply school lunch; many children now prefer westernized meal to traditional meal with bread and meat. Mothers also prefer westernized cooking because they wanted to found their nuclear family after the image of Western life they found in American TV dramas.

### **Social Aspects of Urban Residence**

Since 1960, Japan experienced the rapid economic growth that necessarily affected family life, and a new gender pattern became universal: husbands worked from early in the morning till midnight in the offices, and their wives guarded their family and cared children, and sometimes aged grand-parents. It was normal for women to quit their work when they got married to serve their family. Many families wanted that their children become elites, and for this purpose, they asked them to go to cram schools after the ordinary classes in order that their children could enter into renowned universities. In this situation, family members took less and less all together their meals; husbands went out to their offices before the breakfast, and came back very late, while children took quick diner alone before going to cram schools. Sometimes, each of family members took alone lunch-box bought

in supermarket. Some wives prefer cooking frozen food to preparing dishes by themselves. Now, the family cohesion began to crumble. (Jaakkola, 2014:13-22)

However, women, willingly or unwillingly, played an important role to found communities in these newly developed urban and suburban areas, because, as housewives, they maintained friendship ties among themselves in neighborhood, and sometimes actively participated in the movements of consumers' cooperatives.

Nevertheless, it revealed that the housing policy in this period lacked perspectives on social aspects. If the pre-war attempts of collective housing aimed at creating neighborhood in urban situation, post-war attempts had no concern with social aspect, and indeed failed to create neighborhood communities. The social networks founded by residents of collective housing stayed ephemeral and short living; the network did not consolidate mutual assistance to support their neighbors getting sick, handicapped, or old. At the same time, Japanese economy developed and this country became the second economic power in the world. But with this development, the price of independent houses also developed. In the end of 1980's, it was difficult for urban wageworkers to prepare enough budgets to have their own independent houses near urban centers.

### **New Development of Urban Environment**

In the mid-1990's, the Japanese economy collapsed. The economic environment changed. Now, housewives were forced to work together with their husbands; undergraduate and graduate students were often unable to find secured posts after the higher education. Furthermore, demographic stagnation is announced because many young couples did not have sufficient income to care satisfactorily their children.

In New Towns, young couples of ages of 30's came to found their family in 1960's. Now, they are more than 70 years old, and their children moved out to work or to go to universities in other cities. Some of them lost their partners. Some of them decided to come back to their own home where they had passed their childhood, and some of them cannot come back home for one or another reason. In this situation, the utopia of collective housing for young couples in 1960's is now faded. Here, there are many old couples without children or single persons living alone. Some of them are sick or handicapped who need special assistance. As most of New Towns were constructed in hilly areas around big cities, there are a lot of slopes in the area; it is difficult for aged people to go around along slopes. (Jaakkola, 2016:244-246)

Foraging is not only the urban phenomenon. In rural areas, too, because many young people went out of the villages for the lack of job opportunity in rural areas, only older generations are left in the villages. In traditional Japanese villages, in spite of their strong pressure for cohesion and hierarchical order, mutual assistance was active to support for these sick or handicapped aged people. Through this mutual assistance, young generations learnt practical knowledge about family life. However, without any development of neighborhood, it is difficult for weakened people neither to ask support to neighbors, nor to live with ancestral wisdom.

The foraging situation also deteriorates their dietary life. In fact, because these aged people lose mobility because of sickness, handicap, or simply lack of energy, they go out less and less to meet others and to buy something in shops. Accordingly, their daily meal becomes extremely simplified and thus nutritionally insufficient. To face to this situation, the government introduced a system of public care for these people. However, being based on paid insurance this system cannot efficiently substitute to the informal system of family and neighborhood assistance. Furthermore, today, wages of workers of these caring houses are not enough (often, they cannot get married for lack of necessary income to found families).

### **Vegetable production among suburban dwellers in Ulaanbaatar**

Rapid economic development has radically changed dietary conditions in developing countries in recent decades. In particular, among worse-off people, the nutritional situation is degrading, for they are forced to purchase cheap but nutritionally invaluable foods. This situation provokes an increase of diabetes and obesity. In order to improve the health situation, it is desirable to promote vegetable consumption among these people. Family or civil gardens for vegetable production can be one of the approaches to increasing vegetable consumption.

In Ulaanbaatar, the Mongolian capital, a similar situation can be observed. Originally pastoral people, Mongolians mainly consumed animal products like meat and dairy products for hundreds of years. Although they have also eaten potatoes and flour products since the beginning of the 20<sup>th</sup> century, animal products have remained the principle alimentation. However, the situation has changed in recent decades, with the introduction of industrially produced animal products.

**Outline of the Research:** The project focused on improving the living conditions of residents in a Ger district in Bayanzurkh district in the eastern outskirts of the city of Ulaanbaatar. We expected that vegetable production for self-consumption would contribute both to improving their dietary balance and to economizing on expenses for daily consumption. In this project, we distributed seeds of several vegetables to residents interested in vegetable gardening in March and gave them technical advice on cultivation and vegetable cooking during the agricultural season (from April to September).

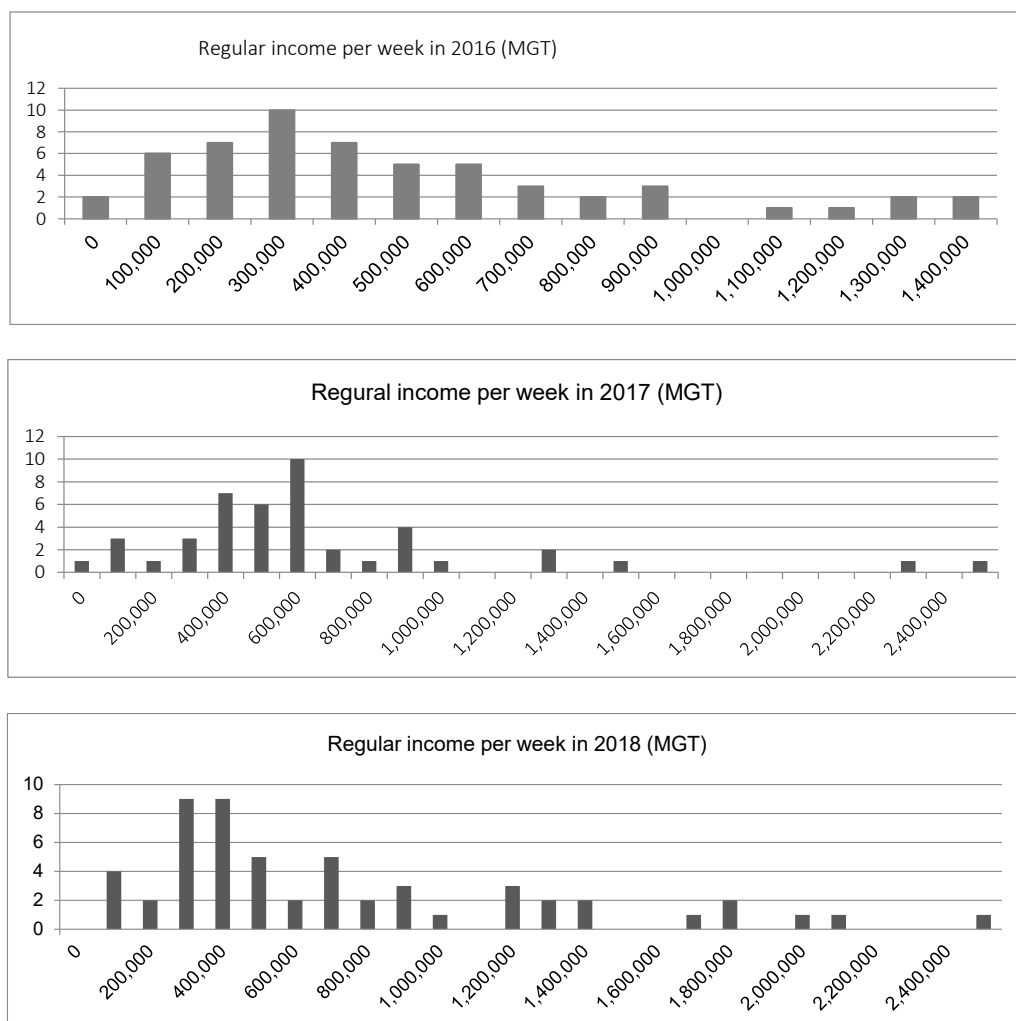
In order to check the effects of our project, we conducted a survey of all households who had participated in our project at the end of the agricultural season. The survey was conducted during September 19–22, 2016, during September 17–20, 2017, and during October 23<sup>r</sup>–25, 2018.

The survey consisted of a questionnaire about personal information and family members, household income, and the production and consumption of vegetables. The number of households participating was 56 in 2016, 44 in 2017, and 55 in 2018. Some individuals participated for three years, but most of them participated for only one or two years.

### Results: Regular income

Initially, we targeted lower-income families in the Ger district. Indeed, most of the participating households are characterized by an income under 700,000 MGT per week. However, compared with households participating in 2017 and 2018, those in 2016 are characterized by relatively low average regular income with low standard deviation. This indicates that, during the second and third years, our project interested households whose incomes were higher than those of our initial target.

*Figure 1. Regular income per week (2016-2018)*



Among the participating households, the income level clearly correlates with educational attainment; the higher the educational attainment of family members, the higher the regular income of the family (correlation coefficients are: 0.364 in 2016, 0.717 in 2017, and 0.628 in 2018, with a significance level of 1%).

A close look at the data reveals slight differences between low-income households and middle-income households. For households with incomes less than 600,000 MGT, there was no correlation between vegetable production and personal characteristics. Instead, for those with regular income above 600,000 MGT per week, a positive correlation was found between income and educational attainment.

The Ger districts historically began as squatter areas around the expanding city of Ulaanbaatar. In early days, most of the inhabitants were worse-off people incapable of obtaining residence in the central city. However, with the expansion of the city, middle-class people also have come to live in these areas. Our project sought to support the domestic economy of the urban poor through encouragement of mutual support within the neighborhood. In fact, in European countries, one of the purposes of the urban garden (or family garden) projects, which have more than a century of history, is to improve living conditions through the encouragement of sociability among the urban poor (Fortier, 2003: 85-86).

However, through our project, the development of sociability was revealed to be difficult for these urban dwellers. A family garden was harder work for them than we expected.

What prevents them from continuing vegetable gardens? The participants often encountered problems with water. It is evident that gardening requires continual watering. However, in Ulaanbaatar, at the time of our project, people were forced to get buckets of water from the public well and bring them back full of water. It is painful work indeed to transport buckets full of water in the hilly areas in the outskirts of Ulaanbaatar. The task is sometimes assigned to children, and sometimes to women. However, the situation will be improved, because the City of Ulaanbaatar is trying to increase the number of public wells in Ger districts.

*Table 1. Food Expense (MGT/week)*

survey year	2016	2017	2018
Average total	66,250	66,533	73,763
Average 2011 group	66,500	63,633	50,460
Average 2012 group	-	68,853	91,133

*Table 2. Expense for foods per income (%)*

surveyed year	2016	2017	2018
Average total	12.8	8.8	10.9
Average 2016 group	12.3	11.8	9.5
Average 2017 group	-	7.4	11.7

Other problems for gardening are the cost of seeds and insufficient technological knowledge of gardening among the people. To learn how to grow vegetables, they should spend a certain amount of time on lessons. But the opportunity costs cannot be neglected.

*Table 3. How harvested vegetables are used in households (%)*

		2016	2017	2018
Self-consumption	2016-group	100	100	90
	2017-group	-	100	100
Gift to relatives	2016-group	80	75	90
	2017-group	-	53	80
Gift to neighbors	2016-group	60	25	70
	2017-group	-	33	53

When we look back at the history of the civil garden movement in Europe and America, we notice that many projects were aimed at improving the social condition of the urban poor, and that these have been part of the overall project of supporting neglected people. Furthermore, already well established urban infrastructure made such projects less costly than in Ulaanbaatar. Social life in the Ger districts in Mongolia exists under different social conditions. Therefore, it is not easy to replicate projects that have been successful in Western settings. Originally, the Mongolian people lived in pastoral areas with their families. Therefore, one may assume that it is not easy for them to maintain urban social networks. However, this assumption is doubtful because most of the people in the 2016 group have lived in Ulaanbaatar longer than most of the people in the 2017 group. The cause of difficult sociability may stem from other factors.

### **Conclusion**

After the World War II, both the government and people wanted to live in urbanized environment with nuclear family regime. However, these new urban dweller failed to found their own communities in collective housing. The government did not have any concrete perspectives on new urban communities. Consequently, when the young couples in 1960's became retired in 1990's, they did not find themselves live in neither solid neighborhood network nor strong family ties. They stayed alone, and had any chance to transfer ancestral wisdom in caring weakened people. They can nonetheless expect for public assistance, but as far as they can pay for costs. The loss of community in urban situation thus results in deterioration of health condition, even though caring institutions has developed and modernized everywhere in cities.

Our research tried to promote urban residents' own initiative to continue vegetable gardening through the development of sociability among the urban poor. However, the results were unexpected, although they do indicate some realities of the social life of residents of Ger districts. While better-off people are eager to develop vegetable consumption and are actively involved in vegetable gardens, it is harder for worse-off people who are less motivated towards vegetable consumption to maintain vegetable gardens. This suggests that middle-class people are more aware of, and probably more attracted by, the need for vegetables in their urban lives than low-income people. It is also evident that a Western model of civil gardens is not always feasible in the Mongolian setting, where the development of social networks in urban neighborhoods is more difficult than in Western



societies. The difficulty probably stems from Mongolians' ancestral way of life, which is based on families rather than neighbors.

As we stated in the introduction, the nutritional status among the urban poor is now degrading elsewhere in the world. Our study suggests that to improve their nutritional condition, it is necessary to combine a nutritional project with an income-raising project.

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